

T&R MANUAL, TACP
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CHAPTER 1

TACP TRAINING AND READINESS PROGRAM

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CHAPTER 1

TACP T&R PROGRAM

100. TACP T&R PROGRAM

1. The Marine TACP Training and Readiness (T&R) program develops unit warfighting capabilities by providing commanders with standardized programs of instruction for training Marine Joint Terminal Attack Controller (JTAC) and Marine Forward Air Controller (FAC)/Air Officer (AO) personnel through community T&R syllabi. These syllabi are based on specific performance standards designed to ensure individuals maintain MOS proficiency. Strict adherence to this program will ensure standardization throughout the fleet and lead toward mission success.

2. This program utilizes a phased training approach to instruct Marine JTACs and FACs/AOs in the different Mission Tasks required for their specialty. These phases begin with general familiarization followed by required core training. Advanced and instructor/evaluator training rounds out phases in TACP programs of instruction.

3. TACP Mission. The mission of the TACP is to support the MAGTF Commander by advising ground commanders on matters pertaining to aviation integration; directing and controlling Close Air Support (CAS) missions; providing combined fire integration; providing terminal guidance operations. These operations will be conducted day or night under all weather conditions.

4. TACP Training Progression. TACP training progression is depicted in figures 1-1 and 1-2.

4. Changes to the Manual. Units may propose changes to this Manual per Appendix B.

5. Deviations From T&R Manual Policy. CG TECOM is the approval authority for deviations from T&R policy delineated in this Manual. Requests for T&R manual policy deviation shall be requested via message traffic to CG TECOM ATB via the respective MEF and info the syllabus sponsor. During contingency/combat operations, MAGTF commanders may deviate from the T&R training policies delineated in this Manual at their discretion.

TACP T&R TRAINING PROGRESSION

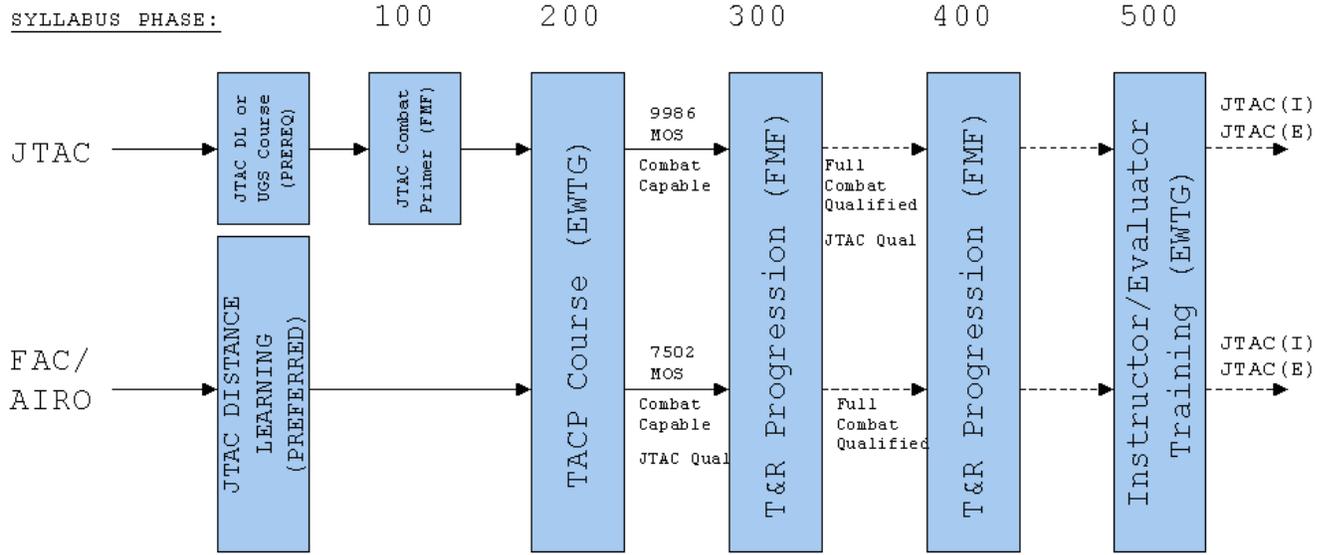


Figure 1-1.--TACP T&R Progression

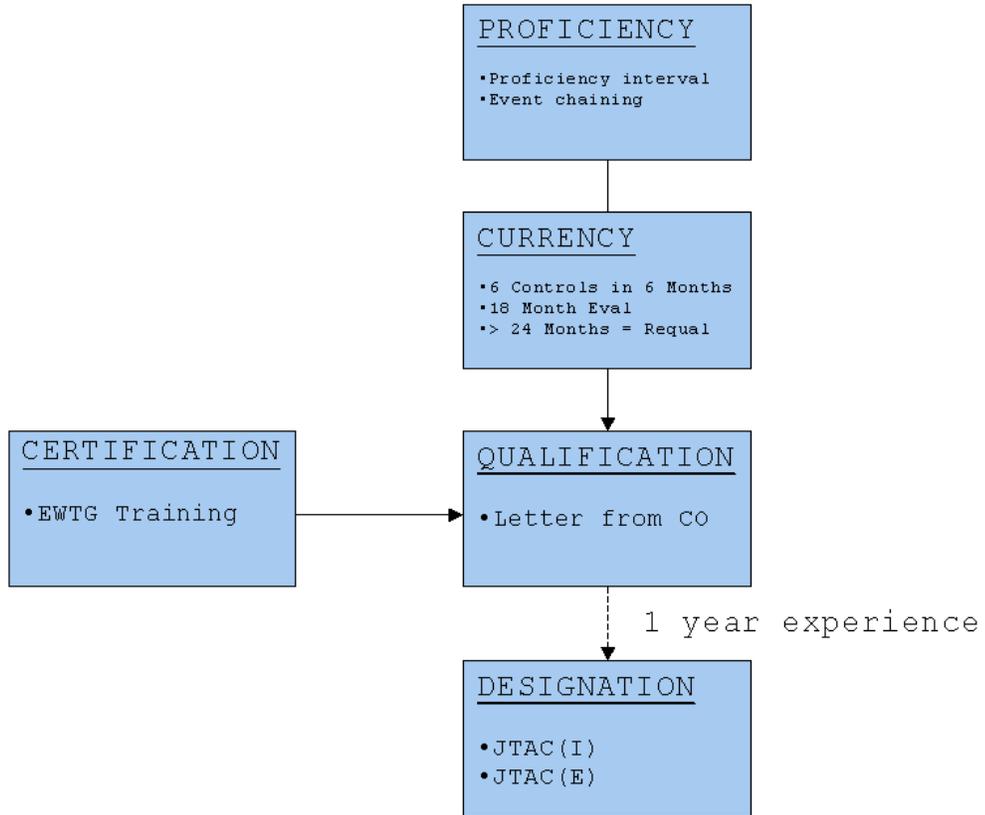


Figure 1-2.--JTAC Training Progression

101. DEFINITIONS.

1. USMC TACP Military Occupation Specialties (MOS).

a. Forward Air Controller (FAC)/Air Officer (AO) 7502. An aviator, qualified as a JTAC, who directs and controls Close Air Support (CAS) missions and advises commanders of ground units on matters pertaining to air support.

(1) A FAC/AO performs air/ground liaison, Terminal Attack Control (as a JTAC), and Terminal Guidance Operations (TGO) duties.

b. Marine Joint Terminal Attack Controller (JTAC) 9986. A ground combat arms officer or staff NCO who, from a forward position, directs the action of combat aircraft engaged in Close Air Support and terminal guidance operations. A qualified JTAC will be recognized across the Department of Defense as capable and authorized to conduct terminal attack control.

(1) A JTAC performs Terminal Attack Control and TGO duties.

(2) A JTAC does not perform all the liaison/assault support functions of a FAC/AO.

c. Air Officer (AO). FACs and AOs are designated with a single MOS, 7502. An AO primarily performs air/ground liaison duties; An AO may perform Terminal Attack Control (as a JTAC), and Terminal Guidance Operations (TGO) duties.

2. Training Management.

a. Proficiency. Proficiency is a measure of achievement of a T&R event skill. Proficiency intervals establish the maximum time between demonstrations of those particular skills for the average individual.

a. Currency. Currency is a control measure used to determine qualification status. Currency is determined in terms of minimum training requirements that must be successfully completed within a defined time interval. An individual who successfully completes stated training requirements within the defined time interval is considered "current."

c. Certification. The evaluation process applied to an individual during a syllabus event(s) by a designated instructor or other authorized personnel for the purpose of ascertaining proficiency as a prerequisite to a qualification or designation. Individuals who satisfactorily complete the appropriate service academic and practical training requirements of a core training curriculum and complete a comprehensive evaluation may be granted a certification.

d. Qualification. A status assigned to personnel based on certification and currency requirements. Upon successful completion of qualification criteria, commanding officers are authorized to issue an appropriate qualification letter. An individual failing to comply with currency requirements shall result in that individual losing their respective qualification.

(1) JTAC Qualification. A service member who meets Joint certification and currency requirements for a JTAC delineated in this manual and the Joint Close Air Support Action Plan Memorandum of Agreement (JCAS AP MOA) [Joint Terminal Attack Controller (Ground)].

(a) A 7502 FAC/AO may be issued a JTAC qualification letter upon 7502

designation and JTAC certification at EWTG.

(b) A 9986 JTAC may be issued a JTAC qualification letter upon 9986 MOS designation (EWTG certification/TACP completion), and successful completion of the 9986 JTAC Full Combat Qualified phase.

e. Designation. A status assigned to an individual based on leadership ability. A designation is a command specific, one-time occurrence and remains in effect until removed for cause or transfer from the unit. Unit commanding officers nominate individuals to receive designations.

(1) JTAC Instructor. A qualified JTAC certified by an EWTG JTAC(I). A designated JTAC(I) is authorized to instruct JTAC and UGS Trainees.

(2) JTAC Evaluator. A qualified JTAC certified by an EWTG JTAC(I). A designated JTAC Evaluator is authorized to evaluate qualified JTAC and UGS personnel undergoing the required 18 month evaluation.

f. Prerequisite. A stated requirement that must be successfully completed prior to commencing training. T&R event prerequisites shall not be omitted or skipped.

g. Trainee. An individual undergoing formal school training required to obtain a TACP MOS. A trainee is an individual who is enrolled in a formal EWTG course.

3. General.

a. Close Air Support (CAS). Air action by fixed- and rotary-wing aircraft against hostile targets that are in close proximity to friendly forces that require detailed integration of each air mission with the fire and movement of those forces. (JP 3-09.3)

b. Terminal Guidance Operations (TGO). Terminal guidance is different from terminal attack control. TGO are actions that provide terminal guidance to weapons or aircraft to facilitate target engagement. TGO are many times conducted by SOF and make joint air attacks and SOF ground operations complementary. Enemy targets, such as mobile high-payoff targets, that are difficult to locate from the air are often more visible to ground SOF. Small ground SOF elements can sometimes search for, identify, and precisely report the location of these targets and with systems like global positioning system (GPS), laser designators, etc. or combinations of the above can provide target locations. Ground SOF may also be able to provide precise BDA of attacks on targets that may otherwise be obscured or hidden. TGO do not include authority to clear aircraft to release ordnance and should not be confused with terminal attack control. (JP 3-09.3)

c. Control. A control consists of at least one aircraft attacking a surface target. The control begins with a CAS briefing (the 9-line is the JP 3-09.3 standard) from a JTAC and ends with either an actual/simulated weapons release or an abort on a final attack run. No more than two controls can be counted per CAS briefing per target.

d. Terminal Control.

(1) The authority to direct aircraft to maneuver into a position to deliver ordnance, passengers, or cargo to a specific location or target. Terminal control is a type of air control.

(2) Any electronic, mechanical, or visual control given to aircraft to facilitate target acquisition and resolution. See also terminal guidance. (JP 3-09.3)

e. Terminal Attack Control. The authority to control the maneuver of and grant weapon release clearance to attacking aircraft. (JP 3-09.3)

f. Terminal Guidance.

(1) The guidance applied to a guided missile between midcourse guidance and arrival in the vicinity of the target.

(2) Electronic, mechanical, visual or other assistance given to an aircraft pilot to facilitate arrival at, operation within or over, landing upon, or departure from an air landing or airdrop facility.

(3) Any electronic, mechanical, voice, or visual communication that provides approaching aircraft or weapons additional information regarding a specific location or target. Terminal guidance is not a type of air control. Those providing terminal guidance do not have weapons release authority, or authority to direct the maneuver of aircraft. See also terminal control. (JP 3-09.3)

g. Simulated CAS (SIMCAS). Terminal control with no intent to release ordnance.

102. TRAINING POLICY

1. Close Air Support (CAS) Training.

a. A qualified JTAC (7502 FAC/AO or full combat qualified 9986 JTAC) is required to supervise the conduct of CAS during all USMC peacetime training evolutions.

b. A JTAC Instructor [JTAC(I)] shall supervise JTAC Trainees. A JTAC trainee is an individual who is enrolled in the EWTG TACP course.

c. A qualified JTAC shall supervise individuals performing CAS familiarization training (100 level T&R).

d. When supervising unqualified individuals, the supervising JTAC/JTAC(I) shall be physically co-located with the unqualified individual, and in a position to observe and assume control of the training operation. The supervising JTAC/JTAC(I) shall possess appropriate communication equipment required to immediately "ABORT" the control and be in a position to "check fire" supporting arms.

e. JTAC Training Requirements. This T&R meets or exceeds all JCAS AP MOA 2004-01 certification, qualification, re-qualification, and currency requirements.

(1) USMC JTAC Certification Process. Prior to commencing JTAC training, a JTAC trainee requires a minimum of one year in a position with operational or mission ready combined fires exposure, or be an aircrew with at least two years of operational flying experience. Individuals shall receive authorized training at organizations with accredited courses. To be certified as a JTAC, the individual must conduct a minimum of 12 fixed-wing Type I or Type II controls*. Four of these controls must expend live or training ordnance. One of the 12 controls must be conducted at night. Upon successful completion of a comprehensive evaluation, the

individual may be granted a JTAC certification by an accredited schoolhouse.

* If an aviator is being trained as a JTAC, a minimum of 8 of the 12 Type I or Type II controls must be fixed-wing.

(2) USMC JTAC Qualification Process. Once certified, a 7502 or 9986 shall receive the JTAC Qualification per standards delineated in respective MOS T&R chapters. A JTAC will retain their qualification provided currency is maintained and recurring evaluation requirements are accomplished.

(a) JTAC currency requirements are 6 Type I or Type II controls within the previous six-month period. A minimum of 4 of the 6 required controls must be fixed-wing. A minimum of 1 control every 6 months shall expend ordnance and 1 control shall be a night control. If a JTAC does not accomplish 6 controls in a six-month period they shall lose the JTAC qualification. For designated 7502s, controls conducted as a FAC(A) satisfy JTAC currency requirements.

(b) At a minimum, JTAC qualified individuals shall be evaluated every 18 months by a designated JTAC Evaluator.

(3) JTAC Re-qualification Process. JTACs who fail to comply with currency or evaluation requirements lose their qualification.

(a) To regain qualification, a JTAC must complete, at a minimum, the number and category (e.g. appropriate night, fixed-wing, ordnance, etc.) of controls the individual failed to accomplish in the previous 6 months under supervision of a qualified JTAC. A JTAC who is unqualified for 24 consecutive months must regain qualification by completing the EWTG TACP course. Upon successful completion of the EWTG TACP course, the individual shall be re-qualified as a JTAC.

(b) Evaluation. To regain qualification, the JTAC shall be evaluated by a qualified JTAC designated by the unit commander.

(4) JTAC Instructor Requirements. JTAC instructors must be assigned to EWTG and shall follow the JTAC(I) POI. Upon successful completion of the JTAC(I) POI, commanding officers are authorized to issue individuals a JTAC(I) designation letter.

f. When a JTAC is operating in a supervisory role, both the unqualified individual and the supervising JTAC may log the same control.

2. Grandfather Clause. "Grandfathering" of TACP MOSs, T&R Qualifications and Designations shall be addressed via SEPCOR from CMC.

3. Formal School Training Priority. The priority for enrollment in formal school TACP training is as follows: (1) 7502 FAC/AO; (2) 9986 JTAC; (3) Other MOSs.

4. Authority and responsibility for training policy rests with CMC, CG MCCDC and Force Commanders. Training policy is applicable during peacetime training evolutions and is not intended to restrict contingency/combat operations.

103. TRAINING PROGRAM STRUCTURE. TACP T&R Programs of Instruction (POIs) are designed to build and maintain individual proficiency in MOS skills. T&R programs utilize a tiered progression of increasingly challenging training events.

1. TACP T&R syllabi shall be structured per Appendix A of this Manual and contain

five general tiers (or phases) of training.

2. Personnel shall be assigned and train to the appropriate T&R Program of Instruction (POI) delineated in this Manual.

104. SYLLABUS TRAINING

1. Commanders shall conduct operational training according to the syllabi in individual T&R Manuals. Commanders shall implement training plans to qualify personnel for their assigned duties.

2. Newly assigned Basic and Refresher (R) personnel shall follow the POI as prescribed. Individuals should be scheduled to complete T&R events in sequential order to the greatest extent possible.

3. T&R Syllabus Evaluation. Establishment of standardized evaluation procedures provides commanders with an effective management tool for monitoring the progress of their personnel.

a. Syllabus sponsors shall develop common T&R syllabus event evaluation forms for documenting performance. T&R syllabus evaluation forms shall be placed in T&R manuals or maintained by the syllabus sponsor. If the syllabus sponsor maintains evaluation forms, the syllabus sponsor shall ensure electronic copies are made available to fleet units.

b. Evaluators shall use common evaluation forms to document individual performance for all initial events in the 100-500 phases. An "E-coded" event is required to be documented again via training forms each time that event is completed.

c. Evaluation forms shall be kept in Individual Performance Records (IPR) per Appendix C.

d. Qualification Evaluation. A designated JTAC Evaluator shall supervise the unit evaluation program. JTAC qualified individuals shall be evaluated every 18 months for training standardization by a JTAC Evaluator.

4. SYLLABUS TRAINING EXCEPTIONS. Waiver or deferral of T&R events shall be avoided to the greatest extent possible. Joint training certification, qualification, re-qualification, and currency requirements shall not be deferred nor waived. Waiving or deferring syllabus events shall only be authorized by unit commanding officers when, in his judgment, a training exception is warranted. Waived and deferred events shall be annotated in IPRs.

a. Waived Events. Events may only be waived for experienced individuals in the Refresher POI; events shall not be waived for individuals in the basic POI. Individuals are not required to complete waived events during the event's proficiency interval. Event proficiency status shall be updated for waived events IAW procedures delineated in paragraph 105.2.

b. Deferred Events. Commanding officers may defer events when a lack of logistic support or training assets does not allow event completion in a timely manner. Deferred events are temporary training exceptions, and deferred events shall be completed when logistic support or training assets become available. Event proficiency status shall not be updated for deferred events. The Training Officer shall annotate deferred events in IPRs until the event is successfully completed.

5. REFRESHER TRAINING. Refresher POIs are prescribed for personnel returning to an operating force billet who have been previously assigned as a 7502, 9986 or 99XX (UGS) in an operational unit. Refresher POIs shall be developed by community SMEs and delineated in individual T&R MOS chapters. Refresher POIs may contain fewer events than basic POIs and are designed to account for previous experience. Individuals undergoing Refresher POIs are also required to complete Basic POI syllabus events that the individual has never previously completed.

a. The EWTG TACP course is prescribed for previously qualified JTACs returning to an operating force billet, who have previously been assigned to the Basic POI of that MOS but have not performed MOS duties within 24 months. EWTG shall evaluate the previous experience and capabilities of each JTAC and tailor refresher academic, practical application, simulator, and T&R event training as applicable. At a minimum, JTAC refresher training shall include 200 level R-coded T&R events. Upon completion of EWTG Refresher training, the individual shall be JTAC qualified and should continue 300-400 T&R training conducted at the operational unit.

105. INDIVIDUAL TRAINING MANAGEMENT

1. Individual Training Philosophy. Individual training and the mastery of individual Full Combat Qualification skills (300 level events) serve as the building blocks for unit combat readiness. Individual training requirements shall be clearly defined and structured (event goals, requirements, performance standards, etc.) per appendix A of this Manual.

a. Training officers shall provide personnel with an estimated schedule of upcoming training events to the maximum extent possible. Effective training management allows unit personnel enough lead-time to adequately plan for all upcoming evolutions.

2. Individual Proficiency. The individual proficiency process provides a tool for training officers to implement unit Operational Risk and Training Management procedures.

a. Proficiency dates for each T&R code shall be maintained for each individual. The proficiency date for an event is the most recent date that event was last completed or updated. A proficient status is valid from the proficiency date through the proficiency interval. Event proficiency status is either "Proficient," "Delinquent," or "Incomplete." Since proficiency status may change from day to day, measurement of proficiency status must be accomplished for a specific date, or "reference date." An Incomplete status indicates an event that has never been successfully completed (no proficiency date). A Proficient status indicates that the number of days between the proficiency date and the reference date (usually "today") must be equal to or less than the proficiency interval. A Delinquent status indicates that the number of days between the proficiency date and the reference date (usually "today") exceeds the proficiency interval. Note: When scheduling, the reference date used to produce proficiency status should be the date of the schedule, usually "tomorrow" or "Monday."

3. Event Proficiency Updating. Event proficiency dates shall be updated when an event is (1) Successfully completed, (2) Updated via chaining, or (3) Updated via Refresher POI updating.

a. Chaining. When a T&R event is logged, the proficiency dates of other T&R events (usually lower in number) may be updated. A T&R code that is logged is known as the chaining code, and the updated codes are chained codes. Chained codes are not always updated when a chaining code is logged. Specific rules may determine when codes are updated via conditional chaining.

b. Basic POI Chaining. The chaining matrix from the T&R determines which events may be updated. Delinquent or proficient are chain-updated. Incomplete events shall not be updated.

c. Refresher POI Updating. Event updating occurs by T&R phase. When all refresher events in a phase are successfully completed, all remaining events in that phase that are proficient or delinquent are updated. Incomplete events are not updated and must be completed in addition to refresher events.

4. Qualification and Designation Management. Designation and qualification letter copies signed by the unit commanding officer shall be included in IPRs per Appendix C.

a. JTAC Qualification Status Tracking. MEF/DIV Air Officers (AOs) shall maintain a JTAC qualification status record/log of all 7502/9986 MOS individuals in their respective MEF/DIV per Appendix C. MEF/DIV AOs shall coordinate with EWTG to ensure an adequate number of JTAC Evaluators are available in OPFOR units.

5. Individual Performance Records (IPR). All training shall be documented and maintained in IPRs per Appendix C. IPRs shall be maintained at the respective unit level Operations Department. The unit level Operations Department is responsible for proper training and ensuring that individuals maintain required qualification obligations.

b. JTAC currency shall be maintained in IPRs per Appendix C.

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Chapter 2

USMC FOREWARD AIR CONTROLLER (FAC)/AIR OFFICER (AO) 7502

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Chapter 2

USMC FOREWARD AIR CONTROLLER (FAC)/AIR OFFICER (AO) 7502

200. MISSION.

1. Introduction. The Tactical Air Control Party Officer course is designed to provide trained Forward Air Controllers (FACs) and Air Officers (AOs) for Operating Forces and Reserve Forces. All personnel who successfully attain the 7502 MOS shall also receive the qualification of JTAC.

a. A forward air controller/air officer (FAC/AO) is an officer (aviator/pilot) member of the tactical air control party who, from a forward ground or airborne position, controls aircraft in close air support of ground troops. FAC/AOs direct and control close air support missions and advise commanders of ground units on matters pertaining to air support.

b. A qualified and current FAC/AO will be recognized across the Department of Defense as capable and authorized to conduct terminal attack control and terminal guidance operations.

201. 7502 PREREQUISITES. Personnel assigned as a 7502 shall be in accordance with MCO 1301.25 and MCO P1200.7.

202. 7502 MISSION ESSENTIAL TASK LIST. FACs/AOs are required to perform all TACP tasks listed in Appendix E.

203. PROGRAMS OF INSTRUCTION1. POI for Basic 7502

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-3	TACP Course/Combat Capable Phase	EWTG
4-10	Full Combat Qualification Phase	OPFOR
10-26	Advanced Training Phase	OPFOR

2. POI for Refresher 7502

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-3	TACP Course	EWTG

3. POI for JTAC(I)

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-3	JTAC(I) Course	EWTG

204. ACADEMIC TRAINING. 7502 academic requirements consist of the EWTG read-ahead package, and the TACP course.

205. COURSES OF INSTRUCTION

<u>COURSE</u>	<u>ACTIVITY</u>
Tactical Air Control Party Course (TACP)	EWTG
Fire Support Coordination Course (FSCC)	EWTG (Optional)
JTAC(I) Course	EWTG

206. TRAINING REFERENCES

1. The following source documents should be reviewed prior to applicable field events:

- Doctrine for Joint Fire Support (Joint Pub 3-09)
- Joint Tactics, Techniques and Procedures for Close Air Support (Joint Pub 3-09.3)
- Supporting Arms Observer, Spotter, and Controller (MCWP 3-16.6)
- Military Operations on Urban Terrain (MCWP 3-35.3)
- Close Air Support (MCWP 3-16)
- Patient Movement (MCWP 4-11.2)
- Assault Support (MCWP 3-24)
- Tactical Fundamentals of Helicopterborne Operations (MCWP 3-11.4)
- MAGTF Aviation Planning (MCWP 5-11.1)
- Multi-Service Helicopter Sling Load: Basic Operations Volume I (MCRP 4-11.3E)
- Aviation Planning Documents (MCRP 5-11.1A)
- MAWTS-1 Academic Support Package
- MAWTS-1 FAC(A) Handbook, Planning and Mission Execution
- MAWTS-1 NVD Manual
- MAWTS-1 MOUT Manual
- USMC Rotary-wing TACSOP

207. EVENT TRAINING SUMMARY

1. BASIC 7502 POI SUMMARY

Combat Primer Phase Training

N/A

Combat Capable Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
Simulator Training	6	16.0
Artillery/Mortar "Call for Fire"	2	1.0
FW CAS, Permissive Environment	1	0.5
FW CAS, Restrictive Environment	1	0.5
Rotary-wing CAS	1	0.5
CAS w/Continuous SEAD	1	0.5
CAS w/Int or Non-standard SEAD	1	0.5
CAS w/NVD and/or IR/Laser mark	<u>2</u>	<u>1.0</u>
Totals	53	84.5

Full Combat Qualified Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
PGM CAS	1	0.5
Simulated CASEVAC	1	2.0
Day Troop Lift	1	2.0
Night Troop Lift	1	2.0
<u>FAC(A) Integration</u>	<u>1</u>	<u>0.5</u>
Totals	5	7.0

Advanced Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Combined Attacks w/Multi Sections	1	0.5
Allied CAS Procedures	1	0.5

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Day Urban CAS	1	0.5
Night Urban CAS	1	0.5
<u>CAS w/AC-130</u>	<u>1</u>	<u>0.5</u>
Totals	5	2.5

	<u>EVENTS</u>	<u>HOURS</u>
Basic syllabus totals:	63	94.0

2. REFRESHER 7502 POI SUMMARY

Combat Primer Phase Training
N/A

Combat Capable Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
Simulator Training	6	16.0
FW CAS, Permissive Environment	1	0.5
Rotary-wing CAS	1	0.5
CAS w/Continuous SEAD	1	0.5
CAS w/Int or Non-standard SEAD	1	0.5
<u>CAS w/NVD and/or IR/Laser mark</u>	<u>2</u>	<u>1.0</u>
Totals	50	83.0

	<u>EVENTS</u>	<u>HOURS</u>
Refresher syllabus totals:	50	83.0

3. JTAC INSTRUCTOR POI SUMMARY

Instructor Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
<u>Simulator Training</u>	<u>6</u>	<u>16.0</u>
Totals	44	80.0

	<u>EVENTS</u>	<u>HOURS</u>
Instructor syllabus totals:	44	80.0

208. EVENT PERFORMANCE REQUIREMENTS

1. General

a. Documentation. 7502 T&R requirements shall be documented on common JTAC Training Forms, which shall be filed in individual IPRs. IPRs shall be maintained at the respective unit level Operations Department. The unit level Operations Department shall ensure that 7502 maintain required JTAC currency obligations. The operations department shall track and document semi-annual and annual currency requirements to include periodic/stage evaluations.

b. The Full Combat Qualified FAC will be able to coordinate and execute close air support and assault support in a major exercise; E.G. CAX, SACCEX, SOCEX, JTFEX. Additionally, full combat qualified FACs exceed JTAC requirements.

c. 7502 JTAC Currency and Evaluation Requirements. JTAC currency requirements are 6 Type I or Type II controls within the previous six-month period. A minimum of 4 of the 6 required controls must be fixed-wing. A minimum of 1 control every 6 months must expend ordnance and 1 control shall be a night control. If a JTAC does not accomplish 6 controls in a six-month period they shall lose the JTAC qualification. For designated 7502s, controls conducted as a FAC(A) satisfy JTAC currency requirements. At a minimum, JTAC qualified individuals shall be evaluated every 18 months by a designated JTAC Evaluator.

(1) 7502s who do not maintain JTAC currency must complete the following events under the supervision of a qualified Marine JTAC appointed by the unit Air Officer (AO):

<u>After 6 Months</u>	<u>After 9 Months</u>	<u>After 12 Months</u>	<u>After 24 Months</u>
OPS-201	OPS-201	OPS-201	Loss of Qualification
OPS-203	OPS-202	OPS-202	EWTG TACP Course
OPS-207	OPS-203	OPS-203	
OPS-208	OPS-204	OPS-204	
	OPS-207	OPS-205	
	OPS-208	OPS-207	
		OPS-208	

(2) 24 months and beyond, 7502 are no longer JTAC qualified and must complete the EWTG TACP Course.

d. Successful Terminal Control. For the purposes of this document, control of a single CAS aircraft attack that results in the terminal controller issuing a "cleared hot", "cleared to engage," "continue dry," or "abort" shall be considered one successful terminal control.

e. During execution of 300 and 400 level syllabus events, consideration shall be given to planning, briefing, and execution of types II and III CAS control; Range regulations and equipment allowing, type II and III CAS controls should be executed when appropriate.

f. SIMCAS. Simulated CAS shall be avoided to the maximum extent possible during training events. During the combat qualified phase no more than 4 day controls and 2 night controls shall be simulated. For refresher controls SIMCAS will be at the discretion of the instructor/evaluator.

g. Ordnance. The use of live ordnance should be used to the maximum extent possible. Live ordnance may consist of any free fall or forward firing ordnance with a live warhead. The use of inert training ordnance, such as BDUs or other weapons with an inert warhead, is acceptable.

208.1. COMBAT CAPABLE PHASE

1. This training shall be conducted at Expeditionary Warfare Training Group (EWTG). All training shall be documented in the FAC/AO training jacket IAW with Appendix C. Upon successful completion of this phase, the FAC/AO must have successfully completed at least twelve controls; eight of the twelve must be fixed-wing, two of the twelve must be at night. Upon completion of the combat capable phase the student shall receive the 7502 MOS and the Unit Commander may issue the individual a JTAC Qualification letter.

2. Mission oriented training events

OPS-200 0.5 E F/S

Goal. Conduct artillery or mortar "calls for fire".

Requirement. Conduct two call for fire missions with an indirect fire asset. Use grid, polar, or shift from a known point method of target location, utilizing doctrinal calls.

Performance Standards. Within three rounds adjust fire to within 100 meters of intended target.

Prerequisite. None.

External Syllabus Support. One (1) firing unit of artillery or mortars.

Ordnance. Minimum of 12 rounds required.

OPS-201 0.5 E F

Goal. Control fixed-wing aircraft attacks in a permissive environment on marked or unmarked targets.

Requirement. Control a CAS mission with fixed-wing aircraft in a permissive threat environment. Artillery or mortar rounds for marking should be used. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of fixed-wing aircraft on an unmarked or marked target. Provide timely corrections and Bomb Damage Assessment (BDA).

Prerequisite. None.

External Syllabus Support. One firing unit of artillery or mortars. One section of fixed-wing aircraft.

Ordnance. Minimum of two Mk 80 series bombs or equivalent. Two indirect fire marking rounds (WP, RP, or Illum).

OPS-202 0.5 E F

Goal. Control a section of fixed-wing aircraft on a marked or unmarked target in a restrictive threat environment.

Requirement. Control a CAS mission with fixed-wing aircraft in a restrictive threat environment. Artillery or mortar rounds for marking shall be used. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of fixed-wing aircraft on a marked or unmarked target. Provide timely corrections and Bomb Damage Assessment (BDA).

Prerequisite. None.

External Syllabus Support. One firing unit of artillery or mortars. One section of fixed-wing aircraft.

Ordnance. A minimum of two Mk 80 series bombs or equivalent. Two indirect fire marking rounds (WP, RP, or Illum).

OPS-203 0.5 E F

Goal. Control rotary-wing aircraft attacks on a marked or unmarked target.

Requirement. Control a CAS mission with a section of rotary-wing aircraft on a marked or unmarked target. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of rotary wing aircraft on a marked or unmarked target. Provide timely corrections and BDA. Two attacks required for completion.

Prerequisite. None.

External Syllabus Support. One firing unit of artillery or mortars. One section of rotary-wing aircraft.

Ordnance. Two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum).

OPS-204 0.5 E F

Goal. Control restrictive threat attacks on a marked or unmarked target while employing continuous Suppression of Enemy Air Defense (SEAD) fires.

Requirement. Control a restrictive threat CAS mission with a section of fixed-wing or rotary-wing aircraft on a marked or unmarked target. Coordinate continuous SEAD with artillery and or mortars. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of fixed-wing or rotary-wing aircraft on a marked or unmarked target. Provide timely corrections and BDA.

Prerequisite. If fixed wing CAS is used - OPS-201; if rotary-wing CAS is used - OPS-203.

External Syllabus Support. One firing unit of artillery and/or mortars. One section of fixed-wing or rotary-wing aircraft.

Ordnance. Fixed-wing: a minimum of two Mk 80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) and five HE suppression rounds.

OPS-205 0.5 E F

Goal. Control restrictive threat attacks on a marked or unmarked target while employing interrupted or non-standard Suppression of Enemy Air Defense (SEAD) fires.

Requirement. Control a restrictive threat CAS mission with a section of fixed-wing or rotary-wing aircraft on a marked or unmarked target. Coordinate interrupted or non-standard SEAD with artillery and or mortars. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of fixed-wing or rotary-wing aircraft on a marked or unmarked target. Provide timely corrections and BDA.

Prerequisite. If fixed wing CAS is used - OPS-201; if rotary-wing CAS is used - OPS-203.

External Syllabus Support. One firing unit of artillery and or mortars. One section of fixed-wing or rotary-wing aircraft.

Ordnance. Fixed-wing: a minimum of two Mk 80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) and four HE Suppression rounds.

OPS-206 0.5 E F/S N

Goal. Observe control of artillery or mortar "call for fire" at night.

Requirement. Observe one coordinated illumination mission at night.

Performance Standards. N/A

Prerequisite. OPS-200.

External Syllabus Support. One firing unit of artillery or mortars.

Ordnance. A minimum of one mark (WP, RP), two HE, and six illumination rounds required.

OPS-207 0.5 E F/N

Goal. Control a CAS mission at night with a section of fixed-wing or rotary-wing aircraft using battlespace illumination and/or IR Pointer.

Requirement. Control a CAS mission with fixed-wing or rotary-wing aircraft at night in conjunction with target illumination. Artillery, mortars, IR pointer, or laser shall mark the target. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of fixed-wing or rotary-wing aircraft at night utilizing illumination on a marked target. Provide timely corrections and BDA.

Prerequisite. If fixed wing CAS is used - OPS-201; if rotary-wing CAS is used - OPS-203.

External Syllabus Support. One indirect fire unit, IR pointer, or LASER. One section of fixed-wing or rotary-wing aircraft.

Ordnance. Fixed-wing: a minimum of two Mk 80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Minimum of one mark (WP, RP), and two illumination rounds required.

OPS-208 0.5 E F/N

Goal. Control a CAS mission at night with a section of fixed-wing or rotary-wing aircraft utilizing night vision devices (NVD) and or IR/Laser marking devices.

Requirement. Control a CAS mission with fixed-wing or rotary-wing aircraft at night while utilizing NVDs. Artillery, mortars, and or IR/Laser marking devices shall mark the target. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of fixed-wing or rotary-wing aircraft at night utilizing night vision devices on a marked target. Provide timely corrections and BDA.

Prerequisite. If fixed wing CAS is used - OPS-201; if rotary-wing CAS is used - OPS-203.

External Syllabus Support. One firing unit of artillery or mortars. One section of fixed-wing or rotary-wing aircraft.

Ordnance. Fixed-wing: a minimum of two Mk 80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Minimum of one mark (WP, RP) as required.

208.2. FULL COMBAT QUALIFIED PHASE

1. Purpose. To develop proficiency in the employment of assault support aircraft and CAS techniques.

2. Requirements. The FAC/AO shall control the delivery of precision guided munitions (PGMs), employ assault support aircraft, integrate FAC(A) aircraft.

a. Laser employment. The use of a laser designator to mark targets is highly encouraged during training events. At a minimum, a laser mark shall be employed for the designated OPS codes.

b. PGMs. Demonstration of PGM employment is highly encouraged during training.

c. FAC(A). Demonstration of FAC(A) coordination with the TACP is highly encouraged during training.

d. Live ordnance. The employment of live ordnance enhances Full Combat Qualified training and shall be used to the maximum extent possible.

e. MACCS integration. A JTAR shall be used to request Close Air Support at a minimum of one mission during this phase of training.

OPS-300 0.5 E F

Goal. FAC(A) Integration.

Requirement. Discuss the aircraft that are FAC(A) capable and how to employ them. Employ FAC(A) as an extension of the TACP for the control of CAS missions.

Performance Standards. Successfully integrate a FAC(A) using doctrinal procedures to attack a target with a section of CAS aircraft.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft and one FAC(A) aircraft.

Ordnance. Fixed-wing: a minimum of two Mk 80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Two FAC(A) marking rounds or two indirect fire marking rounds (WP, RP, or Illum) as appropriate.

OPS-301 0.5 E F

Goal. Control delivery of PGMs on a marked target.

Requirement. Discuss different types of PGMs and their employment capabilities and limitations. Discuss PGM to target match. Discuss current target location error with current systems. Control one CAS mission with fixed-wing or rotary-wing aircraft on a target. Recommended two simulated attacks prior to PGM delivery. One terminal control is required for completion.

Performance Standards. Using doctrinal control procedures, control a fixed-wing or rotary-wing aircraft conducting a PGM attack on a marked or unmarked target.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars, as required. One fixed-wing or rotary-wing attack aircraft.

Ordnance. One PGM. One mark (WP, RP, illumination), as required.

OPS-302 2.0 E F

Goal. Request and control a simulated CASEVAC mission.

Requirement. Discuss mission precedence, LZ considerations to include marking for day and night pick up. Construct and transmit a CASEVAC request to the DASC or appropriate agency. Coordinate Landing Zone (LZ) preparation and supervise evacuation of the simulated CASEVAC personnel.

Performance Standards. Using doctrinal request and control procedures, successfully coordinate an assault support aircraft on a CASEVAC mission.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. DASC or appropriate agency. One assault support aircraft.

OPS-303 2.0 E F

Goal. Request and control a platoon or company sized troop lift.

Requirement. Discuss Helo Serial Wave Assignment Table, Bump plan, LZ selection, single lift vs. waves, and go/no go criteria. Select a suitable LZ. Construct and transmit an Assault Support Request (ASR) to the DASC or appropriate agency. Control the LZ for tactical pickup.

Performance Standards. Using doctrinal request and control procedures, successfully coordinate an assault support aircraft on a troop lift mission.

Prerequisite. Combat Capable phase complete.

External Syllabus Support. DASC or appropriate agency. Three assault support aircraft.

OPS-304 2.0 E F/N

Goal. Request and control a night platoon or company sized troop lift.

Requirement. Discuss zone marking, A/C marking, and stick identification. Select a suitable LZ. Construct and transmit an Assault Support Request (ASR) to the DASC or appropriate agency. Control the LZ for tactical pickup.

Performance Standards. Using doctrinal request and control procedures, successfully coordinate an assault support aircraft on a troop lift mission at night.

Prerequisites. OPS-303.

External Syllabus Support. DASC or appropriate agency.
Three assault support aircraft.

208.3. ADVANCED TRAINING PHASE

1. Purpose. To develop proficiency in the employment of assault support aircraft and advanced CAS techniques.
2. Requirements. The FAC will control the delivery of precision guided munitions (PGMs), practice allied CAS procedures, employ assault support aircraft, integrate FAC(A) aircraft, and control CAS in an urban environment.
3. Mission oriented training events

OPS-400 0.5 E F

Goal. Control combined attacks by multiple sections in a target area.

Requirement. Discuss Joint Air Attack Teams (JAAT) techniques. Control multiple sections of CAS aircraft in a combined or sectored attack. Coordinate SEAD as appropriate. Four terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control multiple sections of CAS aircraft on a marked or unmarked target.

Prerequisite. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery and or mortars as required. Multiple sections of CAS aircraft.

Ordnance. Fixed-wing requires a minimum of two Mk 80 series bombs or equivalent per section. Rotary-wing requires two rockets or a PGM, and 100 rounds per section. A minimum of one mark (WP, RP), and two illumination rounds as required.

OPS-401 0.5 E F

Goal. Control CAS attacks on a target utilizing allied CAS procedures specified in Allied Tactical Publication 63 (Tactics, Techniques and Procedures for Close Air Support Operations)(ATP-63).

Requirement. Discuss the NATO CAS brief and the difference between it and the nine-line. Control a mission with allied CAS aircraft. Use allied CAS procedures to construct CAS briefings and target attacks. Two terminal controls required for completion.

Performance Standards. Using allied control procedures, control a section of CAS aircraft on a marked or unmarked target.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft.

Ordnance. Fixed-wing: a minimum of two Mk 80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) as appropriate.

OPS-402 0.5 E F

Goal. Control a day Urban CAS mission with a section of CAS aircraft.

Requirement. Discuss the effects of different munitions in an urban environment. Discuss the limitations of TACP gear in the urban environment. Discuss how to divide an urban environment to facilitate targeting. Control a CAS mission with a section of CAS aircraft on a marked or unmarked target in an urban environment. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of CAS aircraft on a marked or unmarked target in an urban environment. Provide timely corrections and BDA.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft.

Ordnance. As required.

OPS-403 0.5 E F/N

Goal. Control a night Urban CAS mission with a section of CAS aircraft.

Requirement. Discuss how artificial illumination affects the use of NVDs. Control a night Urban CAS mission with a section of CAS aircraft on an appropriately marked target. Utilize NVDs as appropriate. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of CAS aircraft in a night urban CAS environment. Provide timely corrections and BDA.

Prerequisites. OPS 402 and Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft.

Ordnance. As required.

OPS-404 0.5 E F

Goal. Control a CAS mission with an AC-130.

Requirement. Discuss the AC-130 "Call for Fire". Control a day or night CAS mission with an AC-130 aircraft on a target utilizing the AC-130 "Call for Fire" as per MCWP 3-23.1 or JCAS 3-09.1. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control an AC-130 aircraft. Provide timely corrections and BDA.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. Marking devices as required. One AC-130 aircraft.

Ordnance. As required.

208.4. INSTRUCTOR QUALIFICATION PHASE

1. Purpose. To develop proficiency in the instruction of student terminal controllers, TACP safety, airspace coordination and deconfliction.

2. Requirements. The qualified FAC or AO shall be assigned to EWTG and shall have a minimum of one year of experience as a FAC, AO or FAC(A). The FAC, or AO shall complete an approved service instructor school or be a graduate of the MAWTS-1 WTI Course. While under the supervision of a qualified FAC(I), or JTAC(I), the Instructor Under Training (IUT) shall instruct a student terminal controller. Situational awareness of the mission, timing, airspace and follow-on missions during day and night fixed-wing (FW) and rotary wing (RW) missions. One day FW, one day RW and one night FW or RW mission shall be conducted for a total of three missions. One control shall utilize LASER geometry and planning, one control shall utilize an IR pointer, and one control shall use indirect fire marking rounds.

3. Mission Oriented Training Events

IUT-500 3.0 E F

Goal. Maintain situational awareness (SA) over TACP operations to include airspace and time deconfliction, adherence to range regulations, student training, ordnance usage, CAS tempo and overall mission safety.

Requirement. Act as TACP FSC for a minimum of 10 CAS missions and a total of 3 continuous hours.

Mission Performance Standards. Ensure all aircraft within the training airspace are safely deconflicted. Ensure appropriate operational tempo is maintained. Demonstrate high SA through out the exercise. Ensure mortar and artillery ordnance is expended at the proper rate. Ensure LASER operations are conducted safely. Ensure all range regulations are adhered to. Correct unsafe trends by CAS aircraft, Supporting Arms or TACP personnel. Ensure the student training schedule/TACP Air Plan is adhered to.

Prerequisite. Combat Capable phase complete.

Ordnance. N/A

IUT-501

3.0 E F

Goal. Instruct a student terminal controller, controlling fixed-wing aircraft on a marked target while conducting Suppression of Enemy Air Defense (SEAD).

Requirement. Instruct for a minimum of 2 Day, Type I FW controls. The target must be marked by artillery, mortars, naval gunfire, or LASER designator. Student must coordinate SEAD with indirect fires.

Performance Standards. Ensure CAS brief is safe and correct. Ensure SEAD is properly coordinated/deconflicted and implemented into the mission. Ensure the student knows the SEAD and CAS timelines. Ensure CAS brief is delivered correctly to the CAS aircraft. Ensure a mark is coordinated and implemented correctly. Monitor and correct student communications with the CAS aircraft. Ensure marking corrections are timely, and correct. Ensure the CAS aircraft meet clearance criteria prior to student communication of "Cleared Hot". Monitor mission safety at all times. Conduct a thorough debrief with the student terminal controller.

Prerequisite. Combat Capable phase complete.

Ordnance. A section of fixed-wing aircraft. A minimum of two Mk-80 series bombs or equivalent. Two indirect fire marking rounds (WP, RP, or Illum) and five HE suppression rounds.

IUT-502

3.0 E F

Goal. Instruct a student terminal controller, controlling rotary-wing aircraft on a marked target while conducting SEAD.

Requirement. Instruct for a minimum of 2 Day, Type I RW controls. The target must be marked by artillery, mortars, naval gunfire, or LASER designator. Student must coordinate SEAD with indirect fires.

Performance Standards. Ensure CAS brief is safe and correct. Ensure SEAD is properly coordinated and implemented into the mission. Ensure the student knows the SEAD and CAS timelines. Ensure CAS brief is delivered correctly to the CAS aircraft. Ensure a mark is coordinated and implemented correctly. Monitor and correct student communications with the CAS aircraft. Ensure marking corrections are timely, and correct. Ensure the CAS aircraft meet clearance criteria prior to student communication of "Cleared Hot". Monitor mission safety at all times. Conduct a thorough debrief with the student terminal controller.

Prerequisite. Combat Capable phase complete.

Ordnance. Rotary-wing: two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) and five HE suppression rounds.

IUT-503

3.0 E F

Goal. Instruct a student terminal controller, controlling a section of fixed-wing or rotary-wing aircraft at night on a marked target in a permissive or restrictive threat environment.

Requirement. Instruct for a minimum of 2 Night, Type I FW/RW controls utilizing NVDs. The target must be marked by artillery, mortars or IR Pointer.

Performance Standards. Ensure CAS brief is safe and correct. Ensure CAS brief is delivered correctly to the CAS aircraft. Ensure a mark is coordinated and implemented correctly. Monitor and correct student communications with the CAS aircraft. Ensure marking corrections are timely, and correct. Ensure the CAS aircraft meet clearance criteria prior to student communication "Cleared Hot". Monitor mission safety at all times. Conduct a thorough debrief with the student terminal controller.

Prerequisite. IUT-501 and 502.

External Syllabus Support. One firing unit of artillery, mortars, naval gunfire or IR Pointer. One section of FW or RW aircraft.

Ordnance. Fixed-wing: a minimum of two Mk-80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum). IR Pointer may be substituted for indirect fire marking rounds.

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7502 T&R MATRIX

COMBAT CAPABLE PHASE

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	R	REMARKS
OPS	200	0.5	365		EWTG
OPS	201	0.5	365	X	EWTG
OPS	202	0.5	365		EWTG
OPS	203	0.5	365	X	EWTG
OPS	204	0.5	365	X	EWTG
OPS	205	0.5	365	X	EWTG
OPS	206	0.5	365		EWTG, N
OPS	207	0.5	365	X	EWTG, N
OPS	208	0.5	365	X	EWTG, N

FULL COMBAT QUALIFIED PHASE

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	REMARKS
OPS	300	0.5	365	OPFOR
OPS	301	0.5	365	OPFOR
OPS	302	2.0	365	OPFOR
OPS	303	2.0	365	OPFOR
OPS	304	2.0	365	OPFOR, N

ADVANCED TRAINING PHASE

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	REMARKS
OPS	400	0.5	365	OPFOR
OPS	401	0.5	365	OPFOR
OPS	402	0.5	365	OPFOR
OPS	403	0.5	365	OPFOR N
OPS	404	0.5	365	OPFOR

FIGURE 2-1.--7502 T&R MATRIX

7502 EVENT UPDATE CHAINING

<u>EVENT</u>	<u>EVENTS UPDATED</u>
200	
201	
202	201
203	
204	203, 202, 201
205	203, 202, 201
206	200
207	203, 202, 201
208	207, 203, 202, 201
300	203, 202, 201
300(N)	208, 207, 203, 202, 201
301	203, 202, 201
301(N)	208, 207, 203, 202, 201
302	
303	
304	303
400	205, 204, 203, 202, 201
400(N)	208, 207, 205, 204, 203, 202, 201
401	
402	203, 202, 201
403	402, 208, 207, 203, 202, 201
404	

FIGURE 2-2.--7502 EVENT UPDATE CHAINING

7502 SYLLABUS EVENT CONVERSION MATRIX

NEW TRNG CODE	OLD TRNG CODE
200	200
201	201
202	202
203	203
204	204
205	205
206	300
207	301
208	302
300	406
301	401
302	402
303	403
304	404
400	400
401	405
402	407
403	408
404	409

FIGURE 2-3.--7502 SYLLABUS EVENT CONVERSION MATRIX

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Chapter 3

USMC JOINT TERMINAL ATTACK CONTROLLER (JTAC) 9986

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Chapter 3

USMC JOINT TERMINAL ATTACK CONTROLLER (JTAC) 9986

300. MISSION.

1. Introduction. The Marine Joint Terminal Attack Controller training plan is a building block process that is designed to incorporate classroom instruction, practical application, simulation, aviation familiarization, live-fire offensive air support execution, and a prescribed certification/sustainment program. The Marine JTAC training process will provide qualified Joint Terminal Attack Controllers for Fleet Marine Force (FMF) and Reserve units.

a. A Marine JTAC is a ground combat arms officer or staff NCO who, from a forward position, directs the action of combat aircraft engaged in Close Air Support and Terminal Guidance Operations. A qualified and current JTAC is recognized across the Department of Defense as capable and authorized to conduct joint terminal attack control.

301. JTAC PREREQUISITES. Marine JTAC candidates shall be in accordance with MCO P1200.7 and meet the following prerequisite criteria prior to beginning training:

- a. Ground Combat Arms Officer, or
- b. Ground Combat Arms SNCO from following Military Occupational Specialties (MOS); 0369, 0861, 0321, 18xx
- c. Possess a Secret clearance
- d. Possess an English comprehension level of 3 or higher
- e. Normal color vision and correctable to 20/20
- f. GT score of 110 or higher
- g. Must have 2 years of obligated service remaining upon completion of TACP course

302. 9986 MISSION ESSENTIAL TASK LIST. JTACs are required to perform tasks Duty areas 1-8.

303. PROGRAMS OF INSTRUCTION. The initial mission essential task/skill training for a prospective JTAC is the UGS Course or the JTAC distance-learning course. The Universal Ground Spotters (UGS) Course is conducted at EWTG and consists of academic lectures and practical application. The JTAC distance-learning course is under development; all prospective JTACs must attend the UGS course until the JTAC DL course is approved. After initial UGS training, the prospective JTAC shall accomplish aviation familiarization and live fire execution events under the direct supervision of a qualified Marine JTAC (MOS 7502/9986) appointed by the unit Air Officer (AO). The supervising Marine JTAC shall document the successful completion of the 100 level Training and Readiness (T&R) events in the JTAC training jacket. The prospective JTAC, after completion of the 100 level T&R, shall be assigned by the JTAC occupational field sponsor to attend the TACP course. Upon successful completion of the TACP course, the JTAC shall be designated a 9986 and return to the FMF for completion of the Full Combat Qualified phase under the direct supervision of a JTAC qualified and current 7502. The supervising 7502 shall document the successful completion of the 300 level T&R. Upon completion, the Unit

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Commander may issue the individual a JTAC Qualification letter. The JTAC T&R allows for growth in the 400 level for training beyond the Terminal Attack Control phase by incorporating the remaining functions of Marine aviation.

1. POI for Basic Marine JTAC

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1	UGS Course	EWTG
2-6	Combat Primer Phase	OPFOR
7-9	TACP Course/Combat Capable Phase	EWTG
10-18	Full Combat Qualified Phase	OPFOR
19-26	Advanced Training Phase	OPFOR

2. POI for Refresher Marine JTAC

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-3	TACP Course	EWTG

3. POI for JTAC(I)

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-3	JTAC(I) Course	EWTG

304. ACADEMIC TRAINING. 9986 academic requirements consist of the Distance Learning Course/EWTG read-ahead package, UGS course, and the TACP course.

305. COURSES OF INSTRUCTION

<u>COURSE</u>	<u>ACTIVITY</u>
Universal Ground Spotters Course (UGS)	EWTG
Tactical Air Control Party Course (TACP)	EWTG
Fire Support Coordination Course (FSCC)	EWTG (optional)
JTAC(I) Course	EWTG

306. TRAINING REFERENCES. The following source documents should be reviewed prior to applicable field events:

Doctrine for Joint Fire Support (Joint Pub 3-09)
Joint Tactics, Techniques, and Procedures for Close Air Support (JP 3-09.3)
Supporting Arms Observer, Spotter, and Controller (MCWP 3-16.6)
Military Operations on Urban Terrain (MCWP 3-35.3)
Close Air Support (MCWP 3-16)
Patient Movement (MCWP 4-11.2)
Assault Support (MCWP 3-24)
Tactical Fundamentals of Helicopterborne Operations (MCWP 3-11.4)
MAGTF Aviation Planning (MCWP 5-11.1)
Multi-Service Helicopter Sling Load: Basic Operations Volume I (MCRP 4-11.3E)
Aviation Planning Documents (MCRP 5-11.1A)
MAWTS-1 Academic Support Package
MAWTS-1 FAC(A) Handbook, Planning and Mission Execution
MAWTS-1 NVD Manual
MAWTS-1 MOUT Manual
USMC Rotary-wing TACSOP

307. EVENT TRAINING SUMMARY

1. BASIC 9986 POI SUMMARY

Combat Primer Phase Training

STAGE I (UGS Course)

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	8	12.0
Practical Application	6	8.0
<u>Simulator Training</u>	<u>4</u>	<u>16.0</u>
Totals	18	36.0

STAGE II (100 LEVEL T&R)

	<u>EVENTS</u>	<u>HOURS</u>
Aircrew CAS Brief/Debrief	1	6.0
Observe aviation C2	1	8.0
Arty/Mortar/NGF "Call for Fire"	1	0.5
Fixed-wing CAS/SIMCAS	1	1.0
<u>Rotary-wing CAS/SIMCAS</u>	<u>1</u>	<u>1.0</u>
Totals	5e	16.5

Combat Capable Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
Simulator Training	6	16.0
Artillery/Mortar "Call for Fire"	2	1.0
FW CAS, Permissive Environment	1	0.5
FW CAS, Restrictive Environment	1	0.5
Rotary-wing CAS	1	0.5
CAS w/Continuous SEAD	1	0.5
CAS w/Int or Non-standard SEAD	1	0.5
<u>CAS w/NVD and/or IR/Laser mark</u>	<u>2</u>	<u>1.0</u>
Totals	53	84.5

Full Combat Qualified Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Plan and Control Fixed-wing	2	2.5
Plan and Control Rotary-wing	2	2.5
Plan and Control LCAS	2	2.5
Plan and Control IR Fixed-wing	1	2.5
<u>Plan and Control IR Rotary-wing</u>	<u>1</u>	<u>2.5</u>
Totals	8	12.5

Advanced Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Combined Attacks w/Multi Sections	1	0.5
PGM CAS	1	0.5
Simulated CASEVAC	1	2.0
Day Troop Lift	1	2.0
Night Troop Lift	1	2.0
Allied CAS Procedures	1	0.5
FAC(A) Integration	1	0.5

T&R MANUAL, TACP
DRAFT

Day Urban CAS	1	0.5
Night Urban CAS	1	0.5
<u>CAS w/AC-130</u>	<u>1</u>	<u>0.5</u>
Totals	10	9.5

	<u>EVENTS</u>	<u>HOURS</u>
Basic Syllabus Totals	94	159.0

2. REFRESHER 9986 POI SUMMARY

Combat Primer Phase Training
N/A

Combat Capable Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
Simulator Training	6	16.0
FW CAS, Permissive Environment	1	0.5
Rotary-wing CAS	1	0.5
CAS w/Continuous SEAD	1	0.5
CAS w/Int or Non-standard SEAD	1	0.5
<u>CAS w/NVD and/or IR/Laser mark</u>	<u>2</u>	<u>1.0</u>
Totals	50	83.0

	<u>EVENTS</u>	<u>HOURS</u>
Refresher syllabus totals:	50	83.0

3. JTAC INSTRUCTOR POI SUMMARY

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
<u>Simulator Training</u>	<u>6</u>	<u>16.0</u>
Totals	44	80.0

	<u>EVENTS</u>	<u>HOURS</u>
Instructor syllabus totals:	44	80.0

308. EVENT PERFORMANCE REQUIREMENTS

1. General

a. Documentation. 9986 T&R requirements shall be documented on common JTAC Training Forms, which shall be filed in individual IPRs. JTAC IPRs shall be maintained at the respective unit level Operations Department. The unit level Operations Department shall ensure that JTACs maintain required currency obligations. The operations department shall track and document semi-annual and annual currency requirements to include periodic/stage evaluations.

b. The Combat Capable JTAC shall participate in a major exercise as a terminal attack controller (e.g. CAX, SACCEX, SOCEX, JTFEX) to acquire the experience necessary to become a Full Combat Qualified JTAC. These controls may count toward T&R and currency requirements.

c. JTAC Certification and Qualification. 9986 MOS individuals that meet the specified JTAC prerequisites and successfully complete the Basic JTAC POI through the combat capable curriculum as defined in this manual shall receive the JTAC skill designator. A combat capable JTAC may issue appropriate attack clearance under the direct supervision of a JTAC qualified and designated 7502. JTACs that have successfully completed the Basic JTAC POI through the full combat qualified phase may be issued a JTAC qualification letter by the unit commanding officer. Qualified JTACs may conduct CAS operations unsupervised.

d. JTAC Currency and Evaluation Requirements. JTAC currency requirements are 6 Type I or Type II controls within the previous six-month period. A minimum of 4 of the 6 required controls must be fixed-wing. A minimum of 1 control every 6 months must expend ordnance and 1 control shall be a night control. If a JTAC does not accomplish 6 controls in a six-month period they shall lose the JTAC qualification. JTAC qualified individuals shall be evaluated every 18 months by a designated JTAC Evaluator.

(1) JTACs who do not maintain currency must complete the following events under the supervision of a qualified Marine JTAC appointed by the unit Air Officer (AO):

<u>After 6 Months</u>	<u>After 9 Months</u>	<u>After 12 Months</u>	<u>After 24 Months</u>
OPS-201	OPS-201	OPS-201	Loss of Qualification
OPS-203	OPS-202	OPS-202	EWTG TACP Course
OPS-207	OPS-203	OPS-203	
OPS-208	OPS-204	OPS-204	
	OPS-207	OPS-205	
	OPS-208	OPS-207	
		OPS-208	

(2) 24 months and beyond, 9986s are no longer JTAC qualified and must complete the EWTG TACP Course.

e. Successful Terminal Control. For the purposes of this document, control of a single CAS aircraft attack that results in the terminal controller issuing a "cleared hot", "cleared to engage," "continue dry," or "abort" shall be considered one successful terminal control.

f. During execution of 100, 300, and 400 level syllabus events, consideration shall be given to planning, briefing, and execution of types II and III CAS

control; Range regulations and equipment allowing, type II and III CAS controls should be executed when appropriate.

g. SIMCAS. Simulated CAS shall be avoided to the maximum extent possible during training events. During the combat qualified phase no more than 4 day controls and 2 night controls shall be simulated. For refresher controls SIMCAS will be at the discretion of the instructor/evaluator.

h. Ordnance. The use of live ordnance should be used to the maximum extent possible. Live ordnance may consist of any free fall or forward firing ordnance with a live warhead. The use of inert training ordnance, such as BDUs or other weapons with an inert warhead, is acceptable.

308.1. COMBAT PRIMER PHASE. This training shall be conducted at EWTG and at the Operational Force (OPFOR) unit. OPFOR training shall be conducted and documented by the unit Air Officer in the JTAC training jacket. Combat Primer phase training shall be supervised by a qualified JTAC. Upon successful completion of this phase, the prospective JTAC shall have successfully completed at least 4 fixed-wing and 4 rotary-wing controls.

1. Mission oriented training events

FAM-100 0.5 E S/F

Goal. Conduct simulated artillery, mortar, or naval gunfire call for fire.

Requirement. Conduct two simulated adjust fire missions with an indirect fire asset. Use grid, polar, or shift from a known point method of target location.

Performance Standards. Within three rounds adjust fire to within 100 meters of intended target.

Prerequisite. JTAC DL or UGS Course.

External Syllabus Support. Terrain Puff Board or Forward Observer Training simulator.

Ordinance. None

FAM-101 0.5 E S/F

Goal. Conduct simulated artillery, mortar, or naval gunfire illumination mission.

Requirement. Conduct two illumination missions with an indirect fire asset.

Mission Performance Standards. Within three rounds adjust illumination to optimize target detection.

Prerequisite. JTAC DL or UGS Course.

External Syllabus Support. Terrain Puff Board or Forward Observer Training simulator.

Ordinance. None.

FAM-102 1.0 E S/F

Goal. Control simulated fixed-wing or rotary-wing aircraft attacks in a permissive environment on marked targets.

Requirement. Control a simulated CAS mission in a permissive threat environment. Simulated indirect marking rounds shall be used. Two simulated terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a simulated section of fixed-wing or rotary-wing aircraft on a marked target. Provide timely corrections and Bomb Damage Assessment (BDA).

Prerequisite. JTAC DL or UGS Course.

External Syllabus Support. Terrain Puff Board or Forward Observer Training simulator.

Ordnance. None.

FAM-103 1.0 E S/F

Goal. Control simulated fixed-wing or rotary-wing aircraft attacks in a permissive environment on unmarked targets.

Requirement. Control a simulated CAS mission in a permissive threat environment emphasizing talk-on techniques. Simulated indirect marking rounds shall not be used. Two simulated terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a simulated section of fixed-wing or rotary-wing aircraft on an unmarked target. Provide timely corrections and Bomb Damage Assessment (BDA).

Prerequisite. JTAC DL or UGS Course.

External Syllabus Support. Terrain Puff Board or Forward Observer Training simulator.

Ordnance. None.

FAM-104 0.5 E F

Goal. Control fixed-wing aircraft attacks in a permissive environment on marked or unmarked targets.

Requirement. Discuss CAS timeline to include mark type/time of flight, fixed-wing initial point to target timing, and wingman separation. Control a SIMCAS or CAS mission with fixed-wing aircraft in a permissive threat environment under the direct supervision of a qualified Air Officer. Indirect fire assets, LASER, or IR pointers may be used for marking. Four terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of fixed-wing aircraft on an unmarked or marked target. Provide timely corrections and Bomb Damage Assessment (BDA).

Prerequisite. JTAC DL or UGS Course.

External Syllabus Support. One firing unit of artillery, mortars, NGF or LASER, IR pointer. One section of fixed-wing aircraft.

Ordnance. Two Mk 80 series bombs or equivalent if available. Marking asset.

FAM-105 0.5 E F

Goal. Control rotary-wing aircraft attacks in a permissive environment on marked or unmarked targets.

Requirement. Discuss CAS timeline to include mark type/time of flight, holding area to target timing, and wingman separation. Discuss battle position to target relationship to include weapon engagement ranges, terrain masking, and communication. Control a SIMCAS or CAS mission with rotary-wing aircraft in a permissive threat environment under the direct supervision of a qualified Air Officer. Indirect fire assets, LASER, or IR pointers may be used for marking. Four terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of rotary-wing aircraft on an unmarked or marked target. Provide timely corrections and Bomb Damage Assessment (BDA).

Prerequisite. JTAC DL or UGS Course.

External Syllabus Support. One firing unit of artillery, mortars, NGF or LASER, IR pointer. One section of rotary-wing aircraft.

Ordnance. Rockets, guns, TOW or Hellfire missile, or Captive HF if available. Marking asset.

FAM-106 8.0 E F/S

Goal. Observe a working Marine Aviation Command and Control System (MACCS) during a major exercise while flight operations are underway.

Requirement. Discuss procedural control techniques to include fixed-wing and rotary-wing altitudes, speed, and route selection. Discuss DASC and Fire Support Coordination Center (FSCC) relationship, deconfliction techniques, and air support request routing procedures. Observe the routing and deconfliction of fixed-wing and rotary-wing aircraft performing offensive air support.

Mission Performance Standards. Process an Assault Support Request (ASR) or a Joint Tactical Air Request (JTAR).

Prerequisite. JTAC DL or UGS Course.

External Syllabus Support. An operational Command and Control Operation Center.

Ordnance. None.

FAM-107 3.0 E

Goal. Attend an aircrew CAS brief and debrief.

Requirement. Discuss aircrew tactics as they pertain to the briefed threat, proper ordnance to target match, and aircrew briefing techniques. Observe mission planning, brief and debrief of an executed CAS mission.

Mission Performance Standards. N/A.

Prerequisite. JTAC DL or UGS Course.

External Syllabus Support. Squadron conducting CAS mission.

Ordnance. None.

308.2. COMBAT CAPABLE PHASE. This training shall be conducted at Expeditionary Warfare Training Group (EWTG). EWTG training will build upon the FMF training to include the 200 level events and shall be conducted and documented by the schoolhouse in the JTAC's training jacket. Upon successful completion of this phase, the JTAC shall have successfully completed at least 12 fixed-wing controls IAW JCAS AP MOA (4 FW controls during Combat Primer Phase, 8 FW Controls during Combat Capable Phase) and will receive a skill designator from training command (EWTG). The Combat Capable JTAC may conduct terminal control/guidance only under the direct supervision of a JTAC qualified 7502.

1. Mission oriented training events

OPS-200 0.5 E F/S

Goal. Conduct artillery or mortar call for fire.

Requirement. Conduct two call for fire missions with an indirect fire asset. Use grid, polar, or shift from a known point method of target location, utilizing doctrinal procedures.

Mission Performance Standards. Within three rounds adjust fire to within 100 meters of intended target.

Prerequisite. Combat Primer phase complete.

External Syllabus Support. One (1) firing unit of artillery or mortars.

Ordnance. Minimum of 12 rounds required.

OPS-201 0.5 E F

Goal. Control fixed-wing aircraft attacks in a permissive environment on marked or unmarked targets.

Requirement. Control a CAS mission with fixed-wing aircraft in a permissive threat environment. Artillery or mortar rounds for marking should be used. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of fixed-wing aircraft on an unmarked or marked target. Provide timely corrections and Bomb Damage Assessment (BDA).

Prerequisite. Combat Primer phase complete.

External Syllabus Support. One firing unit of artillery or mortars. One section of fixed-wing aircraft.

Ordnance. Minimum of two Mk 80 series bombs or equivalent. Two indirect fire marking rounds (WP, RP, or Illum).

OPS-202 0.5 E F

Goal. Control a section of fixed-wing aircraft attacks in a restrictive threat environment on a marked target.

Requirement. Control a CAS mission with fixed-wing aircraft in a restrictive threat environment. Artillery or mortar rounds for marking shall be used. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of fixed-wing aircraft on a marked or unmarked target. Provide timely corrections and Bomb Damage Assessment (BDA).

Prerequisite. Combat Primer phase complete.

External Syllabus Support. One firing unit of artillery or mortars. One section of fixed-wing aircraft.

Ordnance. A minimum of two Mk 80 series bombs or equivalent. Two indirect fire marking rounds (WP, RP, or Illum).

OPS-203 0.5 E F

Goal. Control rotary-wing aircraft attacks on a marked target.

Requirement. Control a CAS mission with a section of rotary-wing aircraft on a marked target. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of rotary-wing aircraft on a marked target. Provide timely corrections and BDA. Two terminal controls required for completion.

Prerequisite. Combat Primer phase complete.

External Syllabus Support. One firing unit of artillery or mortars. One section of rotary-wing aircraft.

Ordnance. Two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum).

OPS-204 0.5 E F

Goal. Control restrictive threat attacks on a marked target while employing continuous Suppression of Enemy Air Defense (SEAD) fires.

Requirement. Control a restrictive threat CAS mission with a section of fixed-wing or rotary-wing aircraft on a marked target. Coordinate continuous SEAD with artillery and or mortars. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of fixed-wing or rotary-wing aircraft on a marked target. Provide timely corrections and BDA.

Prerequisite. If fixed wing CAS is used - OPS-201; if rotary-wing CAS is used - OPS-203.

External Syllabus Support. One firing unit of artillery and/or mortars. One section of fixed-wing or rotary-wing aircraft.

Ordnance. Fixed-wing: a minimum of two Mk 80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) and five HE suppression rounds.

OPS-205 0.5 E F

Goal. Control restrictive threat attacks on a marked or unmarked target while employing interrupted or non-standard Suppression of Enemy Air Defense (SEAD) fires.

Requirement. Control a restrictive threat CAS mission with a section of fixed-wing or rotary-wing aircraft on a marked or unmarked target. Coordinate interrupted or non-standard SEAD with artillery and or mortars. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of fixed-wing or rotary-wing aircraft on a marked or unmarked target. Provide timely corrections and BDA.

Prerequisite. If fixed wing CAS is used - OPS-201; if rotary-wing CAS is used - OPS-203.

External Syllabus Support. One firing unit of artillery and or mortars. One section of fixed-wing or rotary-wing aircraft.

Ordnance. Fixed-wing: a minimum of two Mk 80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) and four HE Suppression rounds.

OPS-206 0.5 E F/S N

Goal. Observe control of artillery or mortar "call for fire" at night.

Requirement. Observe one coordinated illumination mission at night.

Mission Performance Standards. N/A

Prerequisite. OPS-200.

External Syllabus Support. One firing unit of artillery or mortars.

Ordnance. A minimum of one mark (WP, RP), two HE, and six illumination rounds required.

OPS-207 0.5 E F/N

Goal. Control a CAS mission at night with a section of fixed-wing or rotary-wing aircraft using battlespace illumination and/or IR Pointer.

Requirement. Control a CAS mission with fixed-wing or rotary-wing aircraft at night in conjunction with target illumination. Artillery, mortars, IR pointer, or laser shall mark the target. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of fixed-wing or rotary-wing aircraft at night utilizing illumination on a marked target. Provide timely corrections and BDA.

Prerequisite. If fixed wing CAS is used - OPS-201; if rotary-wing CAS is used - OPS-203.

External Syllabus Support. One indirect fire unit, IR pointer, or LASER. One section of fixed-wing or rotary-wing aircraft.

Ordnance. Fixed-wing: a minimum of two Mk 80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Minimum of one mark (WP, RP), and two illumination rounds required.

OPS-208 0.5 E F/N

Goal. Control a CAS mission at night with a section of fixed-wing or rotary-wing aircraft utilizing night vision devices (NVD) and or IR/Laser marking devices.

Requirement. Control a CAS mission with fixed-wing or rotary-wing aircraft at night while utilizing NVDs. Artillery, mortars, and or IR/Laser marking devices shall mark the target. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of fixed-wing or rotary-wing aircraft at night utilizing night vision devices on a marked target. Provide timely corrections and BDA.

Prerequisite. If fixed wing CAS is used - OPS-201; if rotary-wing CAS is used - OPS-203.

External Syllabus Support. One firing unit of artillery or mortars. One section of fixed-wing or rotary-wing aircraft.

Ordnance. Fixed-wing: a minimum of two Mk 80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Minimum of one mark (WP, RP) as required.

308.3. FULL COMBAT QUALIFIED PHASE

1. Purpose. To develop proficiency and experience as a JTAC. During this stage of the syllabus, the student will coordinate, request, and control indirect fires and control fixed-wing and rotary-wing aircraft in attacks on targets.

2. Requirements. The student will complete the 300 level syllabus with a minimum of thirty-six (36) total terminal controls on targets by fixed-wing or rotary-wing aircraft: 6 during the Combat Primer Phase (FMF PRE TACP), 14 during the Combat Capable Phase (TACP Course), and 16 during the Full Combat Qualified Phase. All syllabus events in this phase shall be supervised directly and documented by a JTAC qualified 7502. Upon completion of the 300 level T&R syllabus the Unit Commander may issue the individual a JTAC Qualification letter.

a. Laser employment. The use of a laser designator to mark targets is highly encouraged during training events. At a minimum, a laser mark shall be employed for the designated OPS codes.

b. PGMs. Demonstration of PGM employment is highly encouraged during training.

c. FAC(A). Demonstration of FAC(A) coordination with the TACP is highly encouraged during training.

d. Live ordnance. The employment of live ordnance enhances Full Combat Qualified training and shall be used to the maximum extent possible.

e. MACCS integration. A JTAR shall be used to request Close Air Support at a minimum of one mission during this phase of training.

3. After being designated Full Combat Qualified a JTAC may authorize attack clearance in accordance with JP 3-09.3 and local range regulations.

4. Mission oriented training events

OPS-300 2.5 E F

Goal. Plan for and Control a CAS mission with a section of fixed-wing aircraft using a marked target.

Requirement. Discuss the control measures, threat scenario, attack profiles, range regulations, and other administrative requirements to conduct a TACP live fire exercise. Prior to live-fire execution, coordinate with supporting units and agencies in order to conduct a CAS mission with fixed-wing aircraft. Artillery, mortars, NGF, IR pointer, or LASER shall mark the target. Four terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, applicable range regulations, and local SPINS, brief the CAS plan to Air Officer and control a section of fixed-wing aircraft on a marked target. Provide timely corrections and BDA.

Prerequisite. Combat Capable phase complete.

External Syllabus Support. One indirect fire unit, IR pointer, or LASER designator. One section of fixed-wing aircraft.

Ordnance. A minimum of four Mk 80 series bombs or equivalent. A minimum of two marks (WP, RP, ILLUM).

OPS-301 2.5 E F

Goal. Plan for and Control a rotary-wing CAS mission on a marked target.

Requirement. Discuss the control measures, threat scenario, attack profiles, range regulations, and other administrative requirements to conduct a TACP live fire exercise. Prior to live-fire execution, coordinate with supporting units and agencies in order to conduct a CAS mission with fixed-wing aircraft. Artillery, mortars, NGF, IR pointer, or laser shall mark the target. Four terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, applicable range regulations, and local SPINS, brief the CAS plan to the Air Officer and control a section of rotary-wing aircraft on a marked target. Provide timely corrections and BDA.

Prerequisite. Combat Capable phase complete.

External Syllabus Support. One indirect fire unit, IR pointer, or LASER. One section of rotary-wing aircraft.

Ordnance. Rockets or a PGM and 200 rounds (5.56, 7.62, 20mm). A minimum of two marks.

OPS-302 2.5 E F

Goal. Plan for and control a LASER CAS mission with a section of fixed-wing or rotary-wing aircraft using a target designated with a LASER.

Requirement. Discuss LASER geometry, Hellfire exclusion zones, LASER range regulations, J-LASER terminology, and LASER safety. Prior to live-fire execution, coordinate with supporting units and agencies in order to conduct a LASER CAS mission with fixed-wing or rotary-wing aircraft. The target shall be designated with a LASER. Four terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, applicable range regulations, and local SPINS, brief the LASER CAS plan

to the Air Officer and control a section of fixed-wing or rotary-wing aircraft on a LASER designated target. Plan for and use proper J-LASER terminology and procedures. Provide timely corrections and BDA.

Prerequisite. OPS-300 and OPS-301.

External Syllabus Support. One section of fixed-wing or rotary-wing aircraft. LASER designator.

Ordnance. Fixed-wing: a minimum of two GBU bombs, training equivalent (LGTR), or LASER Spot Tracker. Rotary-wing: a minimum of two PGMs or training equivalent captive.

OPS-303 2.5 E F/N

Goal. Plan for and Control a CAS mission with a section of fixed-wing aircraft using an IR pointer on a marked target at night.

Requirement. Discuss Joint IR terminology and marking procedures to include friendly and enemy. Discuss different IR pointers available in the FMF to include pointers available to the Marine aircraft wing. Prior to live-fire execution, coordinate with supporting units and agencies in order to conduct a night IR CAS mission with fixed-wing aircraft. An IR pointer shall mark the target. Two terminal controls are required for completion.

Mission Performance Standards. Using doctrinal control procedures, applicable range regulations, and local SPINS, brief the IR CAS plan to the Air Officer and control a section of fixed-wing aircraft on an IR marked target. Plan for and use proper Joint IR terminology and procedures. Provide timely corrections and BDA.

Prerequisite. OPS-300.

External Syllabus Support. IR pointer, IR strobe. One section of fixed-wing aircraft.

Ordnance. A minimum of two Mk 80 series bombs or equivalent.

OPS-304 2.5 E F/N

Goal. Plan for and Control a CAS mission with a section of Rotary-wing aircraft using an IR pointer on a marked target at night.

Requirement. Discuss abbreviated control technique. Prior to live-fire execution, coordinate with supporting units and agencies in order to conduct a night IR CAS mission with a rotary-wing aircraft. An IR pointer shall mark the target. Two terminal controls are required for completion.

Mission Performance Standards. Using doctrinal control procedures, applicable range regulations, and local SPINS, brief the IR CAS plan to the Air Officer and control a section of rotary-wing aircraft on an IR marked target. Plan for and use proper Joint IR terminology and procedures. Provide timely corrections and BDA.

Prerequisite. OPS-301.

External Syllabus Support. IR pointer, IR strobe. One section of rotary-wing aircraft.

Ordnance. Two rockets or a PGM and 100 rounds.

308.4. ADVANCED TRAINING PHASE

1. Purpose. To develop proficiency in the employment of assault support aircraft and advanced CAS techniques.

2. Requirements. The JTAC shall control the delivery of precision guided munitions (PGMs), practice allied CAS procedures, employ assault support aircraft, integrate FAC(A) aircraft, and control CAS in an urban environment.

3. Mission oriented training events

OPS-400 0.5 E F

Goal. Control combined attacks by multiple sections in a target area.

Requirement. Discuss Joint Air Attack Teams (JAAT) techniques. Control multiple sections of CAS aircraft in a combined or sectored attack. Coordinate SEAD as appropriate. Four terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control multiple sections of CAS aircraft on a marked or unmarked target.

Prerequisite. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery and or mortars as required. Multiple sections of CAS aircraft.

Ordnance. Fixed-wing requires a minimum of two Mk 80 series bombs or equivalent per section. Rotary-wing requires two rockets or a PGM, and 100 rounds per section. A minimum of one mark (WP, RP), and two illumination rounds as required.

OPS-401 0.5 E F

Goal. Control delivery of PGMs on a marked target.

Requirement. Discuss different types of PGMs and their employment capabilities and limitations. Discuss PGM to target match. Discuss current target location error with current systems. Control one CAS mission with fixed-wing or rotary-wing aircraft on a target. Recommended two simulated attacks prior to PGM delivery. One terminal control is required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a fixed-wing or rotary-wing aircraft conducting a PGM attack on a marked or unmarked target.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars, as required. One fixed-wing or rotary-wing attack aircraft.

Ordnance. One PGM. One mark (WP, RP, illumination), as required.

OPS-402 2.0 E F

Goal. Request and control a simulated CASEVAC mission.

Requirement. Discuss mission precedence, LZ considerations to include marking for day and night pick up. Construct and transmit a CASEVAC request to the DASC or appropriate agency. Coordinate Landing Zone (LZ) preparation and supervise evacuation of the simulated CASEVAC personnel.

Mission Performance Standards. Using doctrinal request and control procedures, successfully coordinate an assault support aircraft on a CASEVAC mission.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. DASC or appropriate agency. One assault support aircraft.

OPS-403 2.0 E F

Goal. Request and control a platoon or company sized troop lift.

Requirement. Discuss Helo Serial Wave Assignment Table, Bump plan, LZ selection, single lift vs. waves, and go/no go criteria. Select a suitable LZ. Construct and transmit an Assault Support Request (ASR) to the DASC or appropriate agency. Control the LZ for tactical pickup.

Mission Performance Standards. Using doctrinal request and control procedures, successfully coordinate an assault support aircraft on a troop lift mission.

Prerequisite. Combat Capable phase complete.

External Syllabus Support. DASC or appropriate agency. Three assault support aircraft.

OPS-404 2.0 E F/N

Goal. Request and control a night platoon or company sized troop lift.

Requirement. Discuss zone marking, A/C marking, and stick identification. Select a suitable LZ. Construct and transmit an Assault Support Request (ASR) to the DASC or appropriate agency. Control the LZ for tactical pickup.

Mission Performance Standards. Using doctrinal request and control procedures, successfully coordinate an assault support aircraft on a troop lift mission at night.

Prerequisites. Combat Capable phase complete and OPS-403.

External Syllabus Support. DASC or appropriate agency.
Three assault support aircraft.

OPS-405 0.5 E F

Goal. Control CAS attacks on a target utilizing allied CAS procedures specified in Allied Tactical Publication 63 (Tactics, Techniques and Procedures for Close Air Support Operations)(ATP-63).

Requirement. Discuss the NATO CAS brief and the difference between it and the nine-line. Control a mission with allied CAS aircraft. Use allied CAS procedures to construct CAS briefings and target attacks. Two terminal controls required for completion.

Mission Performance Standards. Using allied control procedures, control a section of CAS aircraft on a marked or unmarked target.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft.

Ordnance. Fixed-wing: a minimum of two Mk 80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) as appropriate.

OPS-406 0.5 E F

Goal. FAC(A) Integration.

Requirement. Discuss the aircraft that are FAC(A) capable and how to employ them. Employ FAC(A) as an extension of the TACP for the control of CAS missions.

Mission Performance Standards. Successfully integrate a FAC(A) using doctrinal procedures to attack a target with a section of CAS aircraft.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft and one FAC(A) aircraft.

Ordnance. Fixed-wing: a minimum of two Mk 80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Two FAC(A) marking rounds or two indirect fire marking rounds (WP, RP, or Illum) as appropriate.

OPS-407 0.5 E F

Goal. Control a day Urban CAS mission with a section of CAS aircraft.

Requirement. Discuss the effects of different munitions in an urban environment. Discuss the limitations of TACP gear in the urban environment. Discuss how to divide an urban environment to facilitate targeting. Control a CAS mission with a section of CAS aircraft on a marked or unmarked target in an urban environment. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of CAS aircraft on a marked or unmarked target in an urban environment. Provide timely corrections and BDA.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft.

Ordnance. As required.

OPS-408 0.5 E F/N

Goal. Control a night Urban CAS mission with a section of CAS aircraft.

Requirement. Discuss how artificial illumination affects the use of NVDs. Control a night Urban CAS mission with a section of CAS aircraft on an appropriately marked target. Utilize NVDs as appropriate. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of CAS aircraft in a night urban CAS environment. Provide timely corrections and BDA.

Prerequisites. Combat Capable phase complete and OPS 407.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft.

Ordnance. As required.

OPS-409 0.5 E F

Goal. Control a CAS mission with an AC-130.

Requirement. Discuss the AC-130 "Call for Fire". Control a day or night CAS mission with an AC-130 aircraft on a target utilizing the AC-130 "Call for Fire" as per MCWP 3-23.1 or JCAS 3-09.1. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control an AC-130 aircraft. Provide timely corrections and BDA.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. Marking devices as required. One AC-130 aircraft.

Ordnance. As required.

308.5. INSTRUCTOR QUALIFICATION PHASE

1. Purpose. To develop proficiency in the instruction of student terminal controllers, TACP safety, airspace coordination and deconfliction.

2. Requirements. The qualified JTAC shall be assigned to EWTG and shall have a minimum of one year of experience as a JTAC. The JTAC shall complete an approved service instructor school. While under the supervision of a qualified FAC(I), or JTAC(I), the Instructor Under Training (IUT) shall instruct a student terminal controller. Situational awareness of the mission, timing, airspace and follow-on missions during day and night fixed-wing (FW) and rotary wing (RW) missions One day FW, one day RW and one night FW or RW mission shall be conducted for a total of three missions. One control shall utilize LASER geometry and planning, one control shall utilize an IR pointer, and one control shall use indirect fire marking rounds.

3. Mission Oriented Training Events

IUT-500 3.0 E F I

Goal. Maintain situational awareness (SA) over TACP operations to include airspace and time deconfliction, adherence to range regulations, student training, ordnance usage, CAS tempo and overall mission safety.

Requirement. Act as TACP FSC for a minimum of 10 CAS missions and a total of 3 continuous hours.

Mission Performance Standards. Ensure all aircraft within the training airspace are safely deconflicted. Ensure appropriate operational tempo is maintained. Demonstrate high SA through out the exercise. Ensure mortar and artillery ordnance is expended at the proper rate. Ensure LASER operations are conducted safely. Ensure all range regulations are adhered to. Correct unsafe trends by CAS aircraft, Supporting Arms or TACP personnel. Ensure the student training schedule/TACP Air Plan is adhered to.

Prerequisite. Full Combat Qualified phase complete.

Ordnance. N/A

IUT-501

3.0 E F

Goal. Instruct a student terminal controller, controlling fixed-wing aircraft on a marked target while conducting Suppression of Enemy Air Defense (SEAD).

Requirement. Instruct for a minimum of 2 Day, Type I FW controls. The target shall be marked by artillery, mortars, naval gunfire, or LASER designator. Student must coordinate SEAD with indirect fires.

Performance Standards. Ensure CAS brief is safe and correct. Ensure SEAD is properly coordinated/deconflicted and implemented into the mission. Ensure the student knows the SEAD and CAS timelines. Ensure CAS brief is delivered correctly to the CAS aircraft. Ensure a mark is coordinated and implemented correctly. Monitor and correct student communications with the CAS aircraft. Ensure marking corrections are timely, and correct. Ensure the CAS aircraft meet clearance criteria prior to student communication of "Cleared Hot". Monitor mission safety at all times. Conduct a thorough debrief with the student terminal controller.

Prerequisite. Full Combat Qualified phase complete.

Ordnance. A section of fixed-wing aircraft. A minimum of two Mk-80 series bombs or equivalent. Two indirect fire marking rounds (WP, RP, or Illum) and five HE suppression rounds.

IUT-502

3.0 E F

Goal. Instruct a student terminal controller, controlling rotary-wing aircraft on a marked target while conducting SEAD.

Requirement. Instruct for a minimum of 2 Day, Type I RW controls. The target shall be marked by artillery, mortars, naval gunfire, or LASER designator. Student must coordinate SEAD with indirect fires.

Performance Standards. Ensure CAS brief is safe and correct. Ensure SEAD is properly coordinated and implemented into the mission. Ensure the student knows the SEAD and CAS timelines. Ensure CAS brief is delivered correctly to the CAS aircraft. Ensure a mark is coordinated and implemented correctly. Monitor and correct student communications with the CAS aircraft. Ensure marking corrections are timely, and correct. Ensure the CAS aircraft meet clearance criteria prior to student communication of "Cleared Hot". Monitor mission safety at all times. Conduct a thorough debrief with the student terminal controller.

Prerequisite. Full Combat Qualified phase complete.

Ordnance. Rotary-wing: two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) and five HE suppression rounds.

IUT-503

3.0 E F

Goal. Instruct a student terminal controller, controlling a section of fixed-wing or rotary-wing aircraft at night on a marked target in a permissive or restrictive threat environment.

Requirement. Instruct for a minimum of 2 Night, Type I FW/RW controls utilizing NVDs. The target shall be marked by artillery, mortars or IR Pointer.

Performance Standards. Ensure CAS brief is safe and correct. Ensure CAS brief is delivered correctly to the CAS aircraft. Ensure a mark is coordinated and implemented correctly. Monitor and correct student communications with the CAS aircraft. Ensure marking corrections are timely, and correct. Ensure the CAS aircraft meet clearance criteria prior to student communication of "Cleared Hot". Monitor mission safety at all times. Conduct a thorough debrief with the student terminal controller.

Prerequisite. Full Combat Qualified phase complete, IUT-501 and 502.

External Syllabus Support. One firing unit of artillery, mortars, naval gunfire or IR Pointer. One section of FW or RW aircraft.

Ordnance. Fixed-wing: a minimum of two Mk-80 series bombs or equivalent. Rotary-wing: two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum). IR Pointer may be substituted for indirect fire marking rounds.

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9986 T&R MATRIX

COMBAT PRIMER PHASE

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	REMARKS
UGS	LECT	12.0	N/A	UGS
SIM	100	0.5	N/A	UGS
SIM	101	0.5	N/A	UGS
SIM	102	1.0	N/A	UGS
SIM	103	1.0	N/A	UGS
SIM	104	0.5	N/A	FMF
SIM	105	0.5	N/A	FMF
DASC	106	8.0	N/A	FMF
FAM	107	3.0	N/A	FMF

COMBAT CAPABLE PHASE

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	R	REMARKS
OPS	200	0.5	365		EWTG
OPS	201	0.5	365	X	EWTG
OPS	202	0.5	365		EWTG
OPS	203	0.5	365	X	EWTG
OPS	204	0.5	365	X	EWTG
OPS	205	0.5	365	X	EWTG
OPS	206	0.5	365		EWTG, N
OPS	207	0.5	365	X	EWTG, N
OPS	208	0.5	365	X	EWTG, N

FULL COMBAT QUALIFIED PHASE

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	REMARKS
OPS	300	2.5	365	FMF
OPS	301	2.5	365	FMF
OPS	302	2.5	365	FMF
OPS	303	2.5	365	FMF, N
OPS	304	2.5	365	FMF, N

ADVANCED TRAINING PHASE

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	REMARKS
OPS	400	0.5	365	FMF
OPS	401	0.5	365	FMF
OPS	402	2.0	365	FMF
OPS	403	2.0	365	FMF
OPS	404	2.0	365	FMF, N
OPS	405	0.5	365	FMF
OPS	406	0.5	365	FMF
OPS	407	0.5	365	FMF
OPS	408	0.5	365	FMF, N
OPS	409	0.5	365	FMF

FIGURE 3-1.--9986 T&R MATRIX

9986 EVENT UPDATE CHAINING

<u>EVENT</u>	<u>EVENTS UPDATED</u>
100	
101	
102	
103	
104	
105	
106	
107	
200	100
201	104
202	201, 104
203	105
204	203, 202, 201
205	203, 202, 201
206	200
207	203, 202, 201
208	207, 203, 202, 201
300	201
301	203
302	203, 201
303	300, 208, 207, 202, 201
304	301, 208, 207, 203
400	205, 204, 203, 202, 201
400(N)	208, 207, 205, 204, 203, 202, 201
401	203, 202, 201
401(N)	208, 207, 203, 202, 201
402	
403	
404	403
405	
406	203, 202, 201
406(N)	208, 207, 203, 202, 201
407	203, 202, 201
408	407, 208, 207, 203, 202, 201
409	

FIGURE 3-2.--9986 EVENT UPDATE CHAINING

Appendix A

TRAINING PROGRAM STRUCTURE

1. This appendix provides the structure and organization for the construction of individual training syllabi. The intent is to maximize combat capability through standardized training syllabi. Each T&R chapter contains a single MOS syllabus.

a. T&R reviews provide the forum to recommend updates to community T&R manuals. Community Subject Matter Expert (SME) input is critical to the T&R review process. Community SMEs shall be familiar with this appendix and shall have prepared command positions on conference agenda items prior to attending a T&R review. At T&R reviews, command SMEs may provide T&R update recommendations; however, designated command voting representatives determine final T&R update recommendations per Appendix B of this Manual.

2. T&R syllabi shall be constructed using a tiered progression of increasingly challenging training events. T&R events shall be divided into phases as delineated below. Community SMEs shall update/construct T&R syllabi per the following guidelines:

a. The 100 level (Combat Primer phase) contains unit level academics, simulation and practical application training. Upon completion of the 100 level syllabus, individuals shall be enrolled as trainees in a formal EWTG MOS COI.

b. The 200 level (Combat Capable phase) contains basic skill training essential to wartime employment. Upon completion of the 200 level syllabus, individuals shall receive the appropriate MOS certification. Commanding Officers may then issue a JTAC qualification letter to a 7502 FAC.

c. The 300 level (Full Combat Qualified phase) contains intermediate skill training. This phase should move an individual from proficiency in basic skills to proficiency in more complex MOS skills. Individuals proficient in this phase of training should be fully qualified and able to execute all required MOS skills. Upon completion of the 300 level syllabus, the Commanding Officer may then issue a JTAC qualification letter to a 9986 JTAC.

d. The 400 level (Advanced Training phase) contains skill training an individual may accomplish, but not required for individual MOS skill proficiency attainment. Skills contained in this level are normally associated with high risk, low probability of execution, and/or are theater specific. This phase of training allows additional training flexibility.

e. The 500 level (Instructor/Evaluator Training phase) contains instructor and evaluator workup and certification syllabus events.

3. PROGRAMS OF INSTRUCTION (POI). An individual syllabus provides for Basic, Refresher and Instructor personnel.

a. Basic. The standard instruction prescribed for newly designated personnel. This is defined as the first tour syllabus. Newly designated personnel shall follow the entire POI as prescribed per individual T&R chapters.

b. Refresher. Refresher POIs are prescribed for personnel returning to an operating force billet who have been previously assigned as a 7502, 9986 or 99XX (UGS) in an operational unit. Refresher syllabi normally have fewer required fleet training events (200-400 level) than basic POIs to account for previous experience. Refresher POIs contain appropriate basic POI training events an average experienced individual is required to complete to regain and maintain individual proficiency in T&R skills.

c. Instructor. This POI is to be completed by qualified personnel prior to designation as an instructor.

4. SYLLABUS FORMAT AND CONTENT. Each syllabus shall use the following sample numbering system and content guidance for standardization:

a. Paragraph Order and Title

X00. MISSION

X01. PREREQUISITES

X02. METL

X03. PROGRAMS OF INSTRUCTION

X04. ACADEMIC TRAINING

X05. COURSES OF INSTRUCTION

X06. TRAINING REFERENCES

X07. EVENT TRAINING SUMMARY

X08. EVENT PERFORMANCE REQUIREMENTS

b. Paragraph Contents. The following paragraphs provide guidance for the information and format included in each T&R syllabus. Formatting examples are provided in *italics*.

(1) Paragraph X00. MISSION. This paragraph shall contain the applicable MOS mission statement. Mission statements shall be formatted as follows:

(a) Mission Statement. The mission of the TACP is to support the MAGTF Commander by Advising maneuver element commanders on matters pertaining to aviation integration; Directing and Controlling Close Air Support (CAS) missions; Providing combined fire integration; Providing terminal guidance operations; day or night under all weather conditions during expeditionary, joint or combined operations.

(2) Paragraph X01. PREREQUISITES. This paragraph shall contain the prerequisites required to commence MOS training.

(3) Paragraph X02. MISSION ESSENTIAL TASK LIST (METL). The Mission Essential Task List is a standardized list of tasks an individual must be able to accomplish during combat/contingency operations.

(a) Individual MOS T&R METL format shall be in accordance with the JCAS AP MOA [Joint Terminal Attack Controller (Ground)]. See

individual T&R chapters for MOS METLs.

(4) Paragraph X03. PROGRAMS OF INSTRUCTION. This paragraph contains an outline of the Basic and Refresher POI. The paragraph includes the length of time for each phase/course of instruction required for personnel to complete the POI.

(a) POIs shall be formatted per the following example:

303. PROGRAMS OF INSTRUCTION

1. POI for Basic Marine JTAC

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1	UGS Course	EWTG
2-XX	Combat Primer Phase	OPFOR
X-XX	TACP Course/Combat Capable Phase	EWTG
X-XX	Full Combat Qualified Phase	OPFOR
X-XX	Advanced Training Phase	OPFOR

2. POI for Refresher Marine JTAC

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-XX	TACP Refresher Course	EWTG
X-XX	Full Combat Qualified 300 T&R	OPFOR
X-XX	Advanced Training Phase 400 T&R	OPFOR

(5) Paragraph X04. ACADEMIC TRAINING. This paragraph contains the required academic training for the respective MOS.

(6) Paragraph X05. COURSES OF INSTRUCTION. This paragraph contains the formal courses of instruction applicable to the respective MOS. Courses of instruction shall be formatted per the following example:

<u>COURSE</u>	<u>ACTIVITY</u>
Universal Ground Spotters Course (UGS)	EWTG
Tactical Air Control Party Course (TACP)	EWTG

(7) Paragraph X06. TRAINING REFERENCES. This paragraph lists the source documents applicable for the respective MOS.

(8) Paragraph X07. EVENT TRAINING SUMMARY. This paragraph provides a summary of the POIs by training phase. Training Summaries shall be formatted per the following example:

307. EVENT TRAINING SUMMARY

1. BASIC (MOS) POI SUMMARY

Combat Primer Phase Training

STAGE I (UGS Course)

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	8	12.0
Practical Application	6	8.0
<u>Simulator Training</u>	<u>4</u>	<u>16.0</u>
<u>Totals</u>	<u>18</u>	<u>36.0</u>

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STAGE II (100 LEVEL T&R)

	<u>EVENTS</u>	<u>HOURS</u>
Aircrew CAS Brief/Debrief	1	6.0
Observe aviation C2	1	8.0
Arty/Mortar/NGF "Call for Fire"	1	0.5
Fixed-wing CAS/SIMCAS	1	1.0
<u>Rotary-wing CAS/SIMCAS</u>	<u>1</u>	<u>1.0</u>
<u>Totals</u>	<u>5</u>	<u>16.5</u>

Combat Capable Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
Simulator Training	6	16.0
Artillery/Mortar "Call for Fire"	2	1.0
FW CAS, Permissive Environment	1	0.5
FW CAS, Restrictive Environment	1	0.5
Rotary-wing CAS	1	0.5
CAS w/Continuous SEAD	1	0.5
CAS w/Int or Non-standard SEAD	1	0.5
<u>CAS w/NVD and/or IR/Laser mark</u>	<u>2</u>	<u>1.0</u>
<u>Totals</u>	<u>53</u>	<u>84.5</u>

Full Combat Qualified Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Plan and Control Fixed-wing	2	2.5
Plan and Control Rotary-wing	2	2.5
Plan and Control LCAS	2	2.5
Plan and Control IR Fixed-wing	1	2.5
<u>Plan and Control IR Rotary-wing</u>	<u>1</u>	<u>2.5</u>
<u>Totals</u>	<u>8</u>	<u>12.5</u>

Advanced Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Combined Attacks w/Multi Sections	1	0.5
PGM CAS	1	0.5
Simulated CASEVAC	1	2.0
Day Troop Lift	1	2.0
Night Troop Lift	1	2.0
Allied CAS Procedures	1	0.5
FAC(A) Integration	1	0.5
Day Urban CAS	1	0.5
Night Urban CAS	1	0.5
<u>CAS w/AC-130</u>	<u>1</u>	<u>0.5</u>
<u>Totals</u>	<u>10</u>	<u>9.5</u>

	<u>EVENTS</u>	<u>HOURS</u>
Basic Syllabus Totals	94	159.0

(9) Paragraph X08. EVENT PERFORMANCE REQUIREMENTS. This paragraph should introduce the event performance requirements portion of the entire syllabus and denote general syllabus administrative notes.

(a) Paragraph X08.1-X08.X. These paragraphs shall contain all the event performance requirements for T&R phases. These paragraphs include the instructions necessary to complete the syllabi. Each phase shall list a series of detailed event descriptions expressed in terms of performance requirements.

(b) SMEs shall use the following blocks of training code numbers to designate events:

Combat Primer phase	100-199
Combat Capable phase Training	200-299
Full Combat Qualified phase Training	300-399
Advanced Training phase Training	400-499
Instructor/Evaluator Training	500-599

(c) A unique numeric three-digit training code shall be assigned to each syllabus event. The first digit of the event training code should begin with the appropriate phase series number (Combat Primer phase events = 1XX; Combat Capable phase Training events = 2XX; etc.). The following format shall be used to develop the syllabus:

X08. EVENT PERFORMANCE REQUIREMENTS

1. General

a. List policies, notes, and guidelines applicable to all T&R events.

X08.1. (NAME OF PHASE) TRAINING

1. General

a. Denote the level of performance desired by the end of the. State administrative notes applicable to the entire phase.

b. List phase prerequisites.

c. List academic instruction required in this phase.

d. Event Training (X Events, X.X Hours)

(List all phase events per the below format)

1/	2/	3/	4/	5/
<u>OPS-300</u>	<u>2.0</u>	<u>R</u>	<u>E</u>	<u>N</u>

Goal. State the terminal learning objectives.

Requirement. List specific tasks for the event; indicate what the individual must accomplish.

Performance Standards. Describe measurable level of proficiency for that event.

Prerequisite. List any requirements that must be completed prior to commencing event training.

External Syllabus Support. List additional training resource requirements and/or external support required to complete the event, i.e., 2 fixed wing aircraft; specific range requirements, etc.

Ordnance. List the amount and type of ordnance required to complete this event, if applicable.

- NOTES: 1/ Event acronym.
2/ Projected event duration. Furnished as a planning tool.
3/ Denotes if event is Refresher POI (Basic is understood).
4/ An "E" indicates an evaluated event.
5/ Conditions: F = Field (If not listed, Field is understood), S = Simulator, F/S = Field preferred/Simulator optional, S/F = Simulator preferred/Field optional, N = Shall be conducted at night.

(a) Event Prerequisites. A prerequisite must be successfully completed prior to commencing training in a syllabus event/phase of training. Event prerequisites shall not be omitted or skipped. Prerequisites are annotated in the prerequisite section of individual events/phases. If a prerequisite is a T&R event, the prerequisite event must have been previously completed (proficiency in the prerequisite event is not required).

2. Required Matrices/Tables

a. Syllabus Matrix. SMEs shall update syllabus event information during T&R conferences using the format as follows:

(MOS) T&R MATRIX

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	R	REMARKS
OPS	200	0.5	365		EWTG
OPS	201	0.5	365	X	EWTG
OPS	202	0.5	365	X	EWTG
OPS	203	0.5	365	X	EWTG
OPS	204	0.5	365	X	EWTG
OPS	205	0.5	365	X	EWTG
OPS	206	0.5	365		EWTG, N
OPS	207	0.5	365	X	EWTG, N
OPS	208	0.5	365	X	EWTG, N

FIGURE X-1.--(MOS) T&R MATRIX

(1) Proficiency interval reflects the maximum time between syllabus events where the unit can expect the average individual to maintain an acceptable level of proficiency in that event. Proficiency intervals shall be delineated in days. An asterisk (*) indicates the event has no proficiency interval (one time training requirement).

b. T&R Chaining Tables. SMEs shall update T&R chaining tables during T&R reviews using the format shown in figure 2-2. Event chaining allows for the completion of more complex and/or advanced events using the same skills to update proficiency status of events. Only events in a sequence entailing demonstration of equivalent skills shall be chained. When a T&R event is logged, the proficiency dates of

other T&R events (usually lower in number) may be updated. The T&R code that is logged is known as the "chaining code," and the updated codes are "chained codes." T&R chaining tables shall be formatted as follows:

(MOS) EVENT UPDATE CHAINING

<u>EVENT</u>	<u>EVENTS UPDATED</u>
100	
101	
102	
103	
104	
105	
106	
107	
200	100
201	104
202	201, 104
203	105
204	203, 202, 201
205	203, 202, 201
206	200
207	203, 202, 201
208	207, 203, 202, 201
300	201
301	203
302	203, 201
303	300, 208, 207, 202, 201
304	301, 208, 207, 203
400	205, 204, 203, 202, 201
400(N)	208, 207, 205, 204, 203, 202, 201
401	203, 202, 201
401(N)	208, 207, 203, 202, 201
402	
403	
404	403
405	
406	203, 202, 201
406(N)	208, 207, 203, 202, 201
407	203, 202, 201
408	407, 208, 207, 203, 202, 201
409	

FIGURE X-2.--(MOS) EVENT UPDATE CHAINING

c. Syllabus Event Conversion Matrix. The syllabus event conversion matrix is used to convert T&R syllabus event proficiency status of the previous T&R syllabus into event proficiency status of the current T&R for individuals. SMEs shall develop syllabus event conversion matrix(ces) for all applicable MOSs during T&R reviews as follows:

(MOS) EVENT CONVERSION MATRIX

NEW TRNG CODE	OLD TRNG CODE
200	202
201	201
202	304
203	204
204	N/A
205	205
301	300, 301
302	302
303	303
304	306
400	307
401	401
402	N/A

FIGURE X-3.--(MOS) EVENT CONVERSION MATRIX

d. T&R Syllabus Event Evaluation Forms. Syllabus sponsors shall develop standardized evaluation forms for events contained in their T&R syllabus. These are the only authorized evaluation forms for use. T&R syllabus evaluation forms shall maintain by the syllabus sponsor. The syllabus sponsor shall ensure electronic copies are made available to OPFOR units.

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APPENDIX B

T&R CHANGES

1. SYLLABUS SPONSOR. The syllabus sponsor is responsible to coordinate T&R changes and maintain close liaison with community tactical units and MAWTS-1. EWTGPAC is the syllabus sponsor for 7502 FAC. EWTGLANT is the syllabus sponsor for 9986 JTAC and 99XX UGS. MAWTS-1 is the syllabus sponsor for 75XX Air Officer.

2. T&R CHANGES

a. T&R Reviews. A T&R review is a forum to routinely review and comprehensively revise the T&R manual. T&R review will normally be conducted via conference and produce a new version of this T&R manual (e.g. MCO PXXXX.XX"B"). T&R reviews may be held via correspondence with CG TECOM approval. T&R reviews will normally convene on a triennial schedule; however, T&R reviews may be convened as appropriate or when higher headquarters directs.

b. T&R changes. A T&R change is a change to an existing T&R between T&R reviews. T&R changes are normally done via correspondence and produce formal changes to the existing T&R manual (e.g. MCO PXXXX.XX, "Ch 1").

3. T&R REVIEW PRE-CONFERENCE PROCEDURES

a. Action

(1) Syllabus Sponsor. The syllabus sponsors shall coordinate with CG TECOM to establish a T&R conference date and prepare the initial convening message to the appropriate commands employing the MOSSs contained in this T&R with an information copy to CMC (DC AVN, DC PP&O) and MAWTS-1. CG TECOM shall release this message 90 days before the proposed conference date. This message shall include the conference convening location and date, announce the purpose, and request interested units to submit agenda items. CG TECOM shall coordinate with the syllabus sponsors to consolidate agenda items and release a conference agenda message to COMMARFORLANT, COMMARFORPAC, COMMARFORRES, MEFs, MARDIVs, MAWTS-1, and all commands employing the MOSSs contained in this T&R.

(2) Fleet units. Authorized agencies shall nominate voting representatives to CG TECOM via message NLT 45 days prior to the conference. Units shall submit agenda items to CG TECOM and the syllabus sponsors (Item, Discussion, Recommendation format) via message NLT 45 days prior to the conference.

(3) CG TECOM. CG TECOM shall provide guidance to syllabus sponsors. CG TECOM shall ensure agenda items are distributed to voting members NLT 30 days prior to the subject conference.

b. Conference Funding. Organizations shall program funding requirements for conference attendance per MCO P7100.8 (Field Budget Guidance Manual).

4. T&R REVIEW CONFERENCE PROCEDURES

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a. All conference attendees shall be familiar with agenda items prior to the conference. Voting members shall staff agenda items and have established command positions prior to attending a conference. As front-end agenda staffing facilitates the T&R update process, CG TECOM discourages accepting additional agenda items during T&R conferences.

b. At the conference, attendees shall review the applicable T&R syllabi and provide change recommendations. SMEs shall format their respective T&R manual syllabi per the examples listed in Appendix A. At a minimum, members of the conference shall complete the following tasks:

(1) Evaluate the syllabus for effectiveness.

(2) Propose changes to the syllabi in format and structure IAW Chapter 1 and Appendix A. Review/validate/modify the following:

(a) Mission statement/METL

(b) Programs of Instruction

(c) Syllabus/Phase information

(d) Syllabus events

(e) Training resource requirements

(f) Required T&R matrices/tables

(g) Syllabus event conversion matrix

(h) T&R syllabus evaluation forms

(3) Coordinate syllabus requirements with other communities as required.

c. Conference attendees may recommend a specific position, but it is CG TECOM, COMMARFORLANT, COMMARFORPAC, COMMARFORRES, who vote. This procedure ensures fair voting practices.

e. Action

(1) Syllabus Sponsor. A syllabus sponsor shall host the conference and ensure each attendee has access to a draft version of the T&R at the completion of the conference.

(2) CG TECOM. CG TECOM shall provide conference guidance to syllabus sponsors and facilitate T&R review procedures. CG TECOM shall also ensure individual T&R chapters are developed/updated IAW the policies contained in this manual.

(3) CG TECOM, COMMARFORLANT, COMMARFORPAC, and COMARFORRES shall designate one voting member with experience in day-to-day supervision of TACP training programs to each conference. The conference attendees should include representatives from each MEF, MARDIV, MAWTS-1, and any other appropriate staff officers. CG TECOM invites HQMC to send representatives.

5. POST-CONFERENCE T&R REVIEW PROCEDURES

a. Action

(1) Syllabus Sponsor. The syllabus sponsors shall provide CG TECOM a smooth, electronic version of the draft T&R chapters within 10 working days of conference completion. The syllabus sponsors shall coordinate with CG TECOM to prepare and release a conference report message to the MARFORs, within 10 working days of conference completion. Conference report messages shall delineate significant change recommendations and request MARFORs concur or non-concur with the draft T&R manual.

(2) MARFORs. MARFORLANT, MARFORPAC, and MARFORRES shall consolidate comments from subordinate units and concur or non-concur with justification to CG TECOM via message within 45 days of the conference completion date.

(a) MARFOR command T&R review conference representatives shall brief their respective commands on post conference results.

(b) MARFORs should coordinate to resolve post conference contentious issues.

(c) Failure to respond to post conference deadlines indicates concurrence with T&R syllabus.

(3) CMC (DC PP&O, DC AVN). CMC shall review the proposed syllabus and concur or non-concur with justification to CG TECOM via message NLT 90 days after conference completion.

(4) CG TECOM

(a) CG TECOM shall coordinate with the syllabus sponsor to prepare and release, within 10 working days, a conference report message. CG TECOM shall ensure electronic versions of draft syllabi are made available to requesting agencies.

(b) CG TECOM shall attach MARFOR comments and forward the draft document to CMC (PP&O, DC AVN), NLT 60 days after conference completion. Unresolved issues shall be forwarded to CMC (DC PP&O, DC AVN) for decision.

(c) Upon MARFOR and CMC concurrence, CG TECOM shall release a message approving the T&R syllabus for interim use. CG TECOM shall attach CMC and MARFOR comments and forward the document for CG, MCCDC signature as an MCO. When the MCO is approved by CG, MCCDC, CG TECOM shall release a message announcing the Marine Corps Order has been approved (the MCO replaces the interim T&R syllabus). CG TECOM shall coordinate with CMC to coordinate publication and distribution as appropriate.

6. T&R CHANGES VIA CORRESPONDENCE

a. Organizations recommending T&R changes shall submit proposed changes in message format via the respective MEF/DIV to CG TECOM and the syllabus sponsors. Correspondence must include rationale for the

change.

b. CG TECOM and the syllabus sponsors shall review and forward the proposed change recommendations to all MEFs/DIVs within 5 working days of receipt of the correspondence.

c. MEFs/DIVs shall submit their comments and recommendations to the CG TECOM and syllabus sponsors within 30 days of the date of the request for comments. All comments and recommendations shall be submitted via message.

d. CG TECOM syllabus sponsor shall consolidate comments and produce a smooth draft of proposed T&R changes (include update of the T&R event conversion matrix if applicable). CG TECOM shall release a T&R change recommendation message to the MARFORs and CMC (DC PP&O, DC AVN) within 45 days of the request for comments.

e. CMC (DC PP&O, DC AVN) and the MARFORs shall review the proposed T&R change and concur or non-concur with justification to CG TECOM within 30 days of the syllabus change recommendation message release. Unresolved issues shall be forwarded to CMC (DC PP&O, DC AVN) for decision. Upon concurrence, CG TECOM shall release a message approving the T&R syllabus change for interim use.

f. CG TECOM shall attach CMC and MARFOR comments and forward the change for CG, MCCDC signature as an MCO change. When the MCO change is approved by CG, MCCDC, CG TECOM ATB shall release a message announcing the MCO has been changed (the MCO change replaces the interim T&R syllabus change). CG TECOM shall coordinate with CMC to coordinate publication and distribution as appropriate.

7. APPLICABILITY. When a T&R manual update or change is approved for use, the approved version of the manual becomes the training standard for all applicable units. Units shall transition to the approved T&R syllabus as soon as practical.

APPENDIX C

INDIVIDUAL PERFORMANCE RECORDS

1. JTAC Individual Performance Record (IPR). To properly document accomplishment of JTAC certification and qualification (currency) standards, an IPR shall be initiated by the JTAC schoolhouse and maintained by the JTAC's operational unit. This IPR shall accompany the individual to each duty assignment to provide unit commanders and commanding officers that individual's certification and qualification status to conduct joint terminal attack control operations, and to maintain appropriate records (currency) within the IPR.

a. The IPR shall contain a 6-part documentation system. This is mandatory for all JTACs.

Part I - TABLE OF CONTENTS.

Part II - COMMANDERS DESIGNATION LETTERS. This section contains a copy of the JTAC's current Qualification and Designation letter(s) and a copy of any previous designation letters, if applicable.

Part III - CAS LOG. This section contains a record of all controls in legible format and must be in compliance with Appendix (A) of the JCAS AP MOA [Joint Terminal Attack Controller (Ground)]. This section should contain records of all controls performed since initial certification. See figure C-1.

Part IV - DOCUMENTATION OF EVALUATIONS. This section contains documentation of all evaluations conducted since initial certification.

PART V - DOCUMENTATION OF TRAINING. All Continuation Training and Refresher Training should be documented in Part V to include academics and testing.

Part VI - JTAC Formal School Diplomas. This section contains any certificates received from attending a formal course of instruction pertaining to Close Air Support or terminal attack control.

2. MEF/DIV Air Officers (AOs) shall maintain a JTAC qualification status record/log of all personnel who have previously received the JTAC qualification. MEF/DIV AOs shall utilize the format shown in figure C-2.

APPENDIX D

ACRONYMS AND DEFINITIONS

ACRONYMS

AAA . . . anti-aircraft artillery
AADC . . . area air defense commander
AAW . . . anti-air warfare
ACA . . . airspace control authority
ACE . . . aviation combat element
ACI . . . air combat intelligence
ACO . . . airspace control order
ACP . . . airspace control plan
AEW . . . airborne early warning
AGM . . . air-to-ground missile
AI . . . air interdiction
AO . . . area of operations
AOC . . . air operations center (Air Force)
AOR . . . area of responsibility
AR . . . armed reconnaissance
ARA . . . armed reconnaissance area
ASC(A) . . . assault support coordinator (airborne)
ASLT . . . air support liaison team
ASOC . . . air support operations center
ATARS . . . advanced tactical airborne reconnaissance system
ATO . . . air tasking order
AWACS . . . Airborne Warning and Control System

BDA . . . bomb or battle damage assessment

C2 . . . command and control
C3 . . . command, control, and communications
C4I . . . command, control, communications, computers, and intelligence
CA . . . combat assessment
CAP . . . combat air patrol
CAS . . . close air support
CBU . . . cluster bomb unit
CCIR . . . commander's critical information requirements
CEP . . . circular error probable
COA . . . course of action
CSSE . . . combat service support element

DAS . . . deep air support
DASC . . . direct air support center
DASC(A) . . . direct air support center (airborne)

EW . . . electronic warfare

FAC . . . forward air controller
FAC(A) . . . forward air controller (airborne)
FARP . . . forward arming and refueling point
FEBA . . . forward edge of the battle area
FFCC . . . force fires coordination center
FLIR . . . forward looking infrared
FMF . . . Fleet Marine Force

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FOB . . . forward operating base
FRAGO . . . fragmentary order
FSCC . . . fire support coordination center
FSCL . . . fire support coordination line

GCE . . . ground combat element
GCI . . . ground controlled intercept
GGW . . . GPS guided weapon
GPS . . . global positioning system

HIDACZ . . . high-density airspace control zone
HPT . . . high-payoff target
HPTL . . . high-payoff target list
HST . . . helicopter support team
HVT . . . high-value target

IFF . . . identification, friend or foe
INS . . . inertial navigation system
IOC . . . initial operational capability
IPB . . . intelligence preparation of the battlespace
IR . . . infrared radiation

JAOC . . . joint air operations center
JDAM . . . joint direct attack munition
JFACC . . . joint force air component commander
JFC . . . joint force commander
JIPTL . . . joint integrated prioritized target list
JMEM . . . joint munitions effectiveness manual
JSOW . . . joint standoff weapon
JTAC . . . joint terminal attack controller
JTAR . . . joint tactical air strike request
JTCB . . . joint targeting coordination board
JTL . . . joint target list

LAAD . . . low altitude air defense
LANTIRN . . . low-altitude navigation and targeting infrared for night
LGB . . . laser-guided bomb
LGM . . . laser-guided missile
LGW . . . laser-guided weapon
LOC . . . lines of communications
LSD . . . laser spot designator
LST . . . laser spot tracker

MACCS . . . Marine air command and control system
MACG . . . Marine air control group
MAG . . . Marine aircraft group
MAGTF . . . Marine air-ground task force
MARFOR . . . Marine Corps forces
MARLO . . . Marine liaison officer
MCDP . . . Marine Corps Doctrinal Publication
MCPP . . . Marine Corps Planning Process
MCRP . . . Marine Corps Reference Publication
MCWP . . . Marine Corps Warfighting Publication
MEF . . . Marine Expeditionary Force
METT-T . . . mission, enemy, terrain and weather, troops and support
available-time available
MISREP . . . mission report

VHF . . . very high frequency

WGS-84 . . . World Geodetic System 1984

DEFINITIONS

air interdiction – Air operations conducted to destroy, neutralize, or delay the enemy's military potential before it can be brought to bear effectively against friendly forces at such distance from friendly forces that detailed integration of each air mission with the fire and movement of friendly forces is not required. (JP 1-02)

air liaison officer – The senior tactical air control party member attached to a ground unit who functions as the primary advisor to the ground commander on air power. An air liaison officer is usually an aeronautically rated officer. Also called ALO. (JP3-09.3.)

air operations center – The principal air operations installation from which aircraft and air warning functions of combat air operations are directed, controlled, and executed. It is the senior agency of the Air Force Component Commander from which command and control of air operations are coordinated with other components and Services. Also called AOC. (JP 1-02)

airspace control authority – The commander designated to assume overall responsibility for the operation of the airspace control system in the airspace control area. Also called ACA. (JP 1-02)

airspace control order – An order implementing the airspace control plan that provides the details of the approved requests for airspace control measures. It is published either as part of the air tasking order or as a separate document. Also called ACO. (JP 1-02)

airspace control plan – The document approved by the joint force commander that provides specific planning guidance and procedures for the airspace control system for the joint force area of responsibility/joint operations area. Also called ACP. (JP 1-02)

airspace coordination area – A three-dimensional block of airspace in a target area, established by the appropriate ground commander, in which friendly aircraft are reasonably safe from friendly surface fires. The airspace coordination area may be formal or informal. Also called ACA. (JP 1-02)

air superiority – That degree of dominance in the air battle of one force over another which permits the conduct of operations by the former and its related land, sea and air forces at a given time and place without prohibitive interference by the opposing force. (JP 1-02)

anti-air warfare – A US Navy/US Marine Corps term used to indicate that action required to destroy or reduce to an acceptable level the enemy air and missile threat. It includes such measures as the use of interceptors, bombers, anti-aircraft guns, surface-to-air and air-to-air missiles, electronic attack, and destruction of the air or missile

threat both before and after it is launched. Other measures which are taken to minimize the effects of hostile air action are cover, concealment, dispersion, deception (including electronic), and mobility.

Also called AAW. (JP 1-02) AAW is one of the six functions of Marine aviation.

Anti-radiation missile – A missile that homes passively on a radiation source. (JP 1-02)

armed reconnaissance – A mission with the primary purpose of locating and attacking targets of opportunity, i.e., enemy materiel, personnel, and facilities, in assigned general areas or along assigned ground communications routes, and not for the purpose of attacking specific briefed targets. Also called AR.
(JP 1-02)

attack heading – 1. The interceptor heading during the attack phase that will achieve the desired track-crossing angle. 2. The assigned magnetic compass heading to be flown by aircraft during the delivery phase of an air strike. (JP 1-02)

aviation combat element – The core element of a Marine air-ground task force that is task-organized to conduct aviation operations. The aviation combat element provides all or a portion of the six functions of Marine aviation necessary to accomplish the Marine air-ground task force's mission. These functions are anti-air warfare, offensive air support, assault support, electronic warfare, air reconnaissance, and control of aircraft and missiles. The aviation combat element is usually composed of an aviation unit headquarters and various other aviation units or their detachments. It can vary in size from a small aviation detachment of specifically required aircraft to one or more Marine aircraft wings. The aviation combat element may contain other Service or foreign military forces assigned or attached to the MAGTF. Also called ACE. (MCRP 5-12C)

battle damage assessment – The timely and accurate estimate of damage resulting from the application of military force, either lethal or non-lethal, against a predetermined objective. Battle damage assessment can be applied to the employment of all types of weapon systems (air, ground, naval, and special forces weapon systems) throughout the range of military operations. Battle damage assessment is primarily an intelligence responsibility with required inputs and coordination from the operators. Battle damage assessment is composed of physical damage assessment, functional damage assessment, and target system assessment. Also called BDA. (JP 1-02)

certification – The evaluation process applied to an individual during a syllabus event(s) by a designated instructor or other authorized personnel for the purpose of ascertaining proficiency as a prerequisite to a qualification or designation. Individuals who satisfactorily complete the appropriate service academic and practical training requirements of a core training curriculum and complete a comprehensive evaluation may be granted a certification. (TACP T&R)

close air support – Air action by fixed- and rotary wing aircraft against hostile targets which are in close proximity to friendly forces

and which require detailed integration of each air mission with the fire and movement of those forces. Also called CAS. (JP 1-02)

combat service support element – The core element of a Marine air-ground task force that is task-organized to provide the combat service support necessary to accomplish the Marine air-ground task force mission. The combat service support element varies in size from a small detachment to one or more force service support groups. It provides supply, maintenance, transportation, general engineering, health services, and a variety of other services to the Marine air-ground task force. It may also contain other Service or foreign military forces assigned or attached to the MAGTF. Also called CSSE. (MCRP 5-12C)

combined arms – The full integration of combat arms in such a way that to counteract one, the enemy must become more vulnerable to another. (MCRP 5-12C)

command and control – The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission. Also called C2. (JP 1-02)

command element – The core element of a Marine air-ground task force that is the headquarters. The command element is composed of the commander, general or executive and special staff sections, headquarters section, and requisite communications support, intelligence and reconnaissance forces, necessary to accomplish the MAGTF's mission. The command element provides command and control, intelligence, and other support essential for effective planning and execution of operations by the other elements of the MAGTF. The command element varies in size and composition and may contain other Service or foreign military forces assigned or attached to the MATF. Also called CE. (MCRP 5-12C)

concept of operations – A verbal or graphic statement, in broad outline, of a commander's assumptions or intent in regard to an operation or series of operations. The concept of operations frequently is embodied in campaign plans and operation plans; in the latter case, particularly when the plans cover a series of connected operations to be carried out simultaneously or in succession. The concept is designed to give an overall picture of the operation. It is included primarily for additional clarity of purpose. (JP 1-02)

control - A control consists of at least one aircraft attacking a surface target. The control begins with a CAS briefing (the 9-line is the JP 3-09.3 standard) from a JTAC and ends with either an actual/simulated weapons release or an abort on a final attack run. No more than two controls can be counted per CAS briefing per target. (TACP T&R)

currency - Currency is a control measure used to determine qualification status. Currency is determined in terms of minimum

training requirements that must be successfully completed within a defined time interval. An individual who successfully completes stated training requirements within the defined time interval is considered "current."

deep air support - Air action against enemy targets at such a distance from friendly forces that detailed integration of each mission with fire and movement of friendly forces is not required. Deep air support missions are flown on either side of the fire support coordination line; the lack of a requirement for close coordination with the fire and movement of friendly forces is the qualifying factor. DAS missions include AI, AR, and strike coordination and reconnaissance (SCAR). (MCRP 5-12C)

designation - A status assigned to an individual based on leadership ability. A designation is a command specific, one-time occurrence and remains in effect until removed for cause or transfer from the unit. Unit commanding officers nominate individuals to receive designations. (TACP T&R)

direct air support center - The principal air control agency of the US Marine air command and control system responsible for the direction and control of air operations directly supporting the ground combat element. It processes and coordinates requests for immediate air support and coordinates air missions requiring integration with ground forces and other supporting arms. It normally collocates with the senior fire support coordination center within the ground combat element and is subordinate to the tactical air command center. Also called DASC. (JP 1-02)

direct support - A mission requiring a force to support another specific force and authorizing it to answer directly to the supported force's request for assistance. See also general support. (JP 1-02)

electronic warfare - Any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy. Also called EW. The three major subdivisions within electronic warfare are: electronic attack, electronic protection, and electronic warfare support.

a. electronic attack. That division of electronic warfare involving the use of electromagnetic energy, directed energy, or anti-radiation weapons to attack personnel, facilities, or equipment with the intent of degrading, neutralizing, or destroying enemy combat capability and is considered a form of fires. Also called EA. EA includes: **1)** actions taken to prevent or reduce an enemy's effective use of the electromagnetic spectrum, such as jamming and electromagnetic deception, and **2)** employment of weapons that use either electromagnetic or directed energy as their primary destructive mechanism (lasers, radio frequency weapons, particle beams). **b. electronic protection.** That division of electronic warfare involving passive and active means taken to protect personnel, facilities, and equipment from any effects of friendly or enemy employment of electronic warfare that degrade, neutralize, or destroy friendly combat capability. Also called EP. **c. electronic warfare support.** That division of electronic warfare involving actions tasked by, or under direct control of, an operational commander to search for,

intercept, identify, and locate or localize sources of intentional and unintentional radiated electromagnetic energy for the purpose of immediate threat recognition, targeting, planning and conduct of future operations. Thus, electronic warfare support provides information required for decisions involving electronic warfare operations and other tactical actions such as threat avoidance, targeting, and homing. Also called ES. Electronic warfare support data can be used to produce signals intelligence, provide targeting for electronic or destructive attack, and produce measurement and signature intelligence. (JP 1-02)

fire support coordination center – A single location in which are centralized communications facilities and personnel incident to the coordination of all forms of fire support. See also supporting arms coordination center. Also called FSCC. (JP 1-02)

fire support coordination line – A fire support coordinating measure that is established and adjusted by appropriate land or amphibious force commanders within their boundaries in consultation with superior, subordinate, supporting, and affected commanders. Fire support coordination lines (FSCLs) facilitate the expeditious attack of surface targets of opportunity beyond the coordinating measure. An FSCL does not divide an area of operations by defining a boundary between close and deep operations or a zone for close air support. The FSCL applies to all fires of air, land, and sea-based weapon systems using any type of ammunition. Forces attacking targets beyond an FSCL must inform all affected commanders in sufficient time to allow necessary reaction to avoid fratricide. Supporting elements attacking targets beyond the FSCL must ensure that the attack will not produce adverse effects on, or to the rear of, the line. Short of an FSCL all air-to-ground and surface-to surface attack operations are controlled by the appropriate land or amphibious force commander. The FSCL should follow well defined terrain features. Coordination of attacks beyond the FSCL is especially critical to commanders of air, land, and special operations forces. In exceptional circumstances, the inability to conduct this coordination will not preclude the attack of targets beyond the FSCL. However, failure to do so may increase the risk of fratricide and could waste limited resources. Also called FSCL. (JP 1-02)

forward air controller – An officer (aviator) member of the tactical air control party who, from a forward ground or airborne position, controls aircraft in close air support of ground troops. Also called FAC.
(JP 1-02)

forward air controller (airborne) – A specifically trained and qualified aviation officer who exercises control from the air of aircraft engaged in close air support of ground troops. The forward air controller (airborne) is normally an airborne extension of the tactical air control party. Also called FAC(A). (JP 1-02)

forward arming and refueling point – A temporary facility, organized, equipped, and deployed by an aviation commander, and normally located in the main battle area closer to the area of operation than the aviation unit's combat service area, to provide fuel and ammunition necessary for the employment of aviation maneuver units in combat. The forward arming and refueling point permits combat aircraft to rapidly refuel and rearm simultaneously. Also called FARP. (JP 1-02)

forward looking infrared – An airborne, electro-optical thermal imaging device that detects far-infrared energy, converts the energy into an electronic signal, and provides a visible image for day or night viewing. Also called FLIR. (JP 1-02) See night vision device.

forward operating base – An airfield used to support tactical operations without establishing full support facilities. The base may be used for an extended time period. Support by a main operating base will be required to provide backup support for a forward operating base. Also called FOB. (JP 1-02)

general support – That support which is given to the supported force as a whole and not to any particular subdivision thereof. (JP 1-02) See also direct support.

ground combat element – The core element of a Marine air-ground task force that is task organized to conduct ground operations. It is usually constructed around an infantry organization but can vary in size from a small ground unit of any type, to one or more Marine divisions that can be independently maneuvered under the direction of the MAGTF commander. It includes appropriate ground combat and combat support forces and may contain other Service or foreign military forces assigned or attached to the Marine air-ground task force. The ground combat element itself is not a formal command. Also called GCE. (MCRP 5-12C)

high-density airspace control zone – Airspace designated in an airspace control plan or airspace control order, in which there is a concentrated employment of numerous and varied weapons and airspace users. A high-density airspace control zone has defined dimensions which usually coincide with geographical features or navigational aids. Access to a high-density airspace control zone is normally controlled by the maneuver commander. The maneuver commander can also direct a more restrictive weapons status within the high-density airspace control zone. Also called HIDACZ. (JP 1-02)

immediate air support – Air support to meet specific requests which arise during the course of a battle and which by their nature cannot be planned in advance. (JP 1-02)

intelligence preparation of the battlespace – An analytical methodology employed to reduce uncertainties concerning the enemy, environment, and terrain for all types of operations. Intelligence preparation of the battlespace builds an extensive database for each potential area in which a unit may be required to operate. The database is then analyzed in detail to determine the impact of the enemy, environment, and terrain on operations and presents it in graphic form. Intelligence preparation of the battlespace is a continuing process. Also called IPB. (JP 1-02)

joint air operations center – A jointly staffed facility established for planning, directing, and executing joint air operations in support of the joint force commander's operation or campaign objectives. Also called JAOC. (JP 1-02)

joint force air component commander – The joint force air component commander derives authority from the joint force commander who has the authority to exercise operational control, assign missions, direct coordination among subordinate commanders, redirect and organize forces to ensure unity of effort in the accomplishment of the overall mission. The joint force commander will normally designate a joint force air component commander. The joint force air component commander's responsibilities will be assigned by the joint force commander (normally these would include, but not be limited to, planning, coordination, allocation, and tasking based on the joint force commander's apportionment decision). Using the joint force commander's guidance and authority, and in coordination with other Service component commanders and other assigned or supporting commanders, the joint force air component commander will recommend to the joint force commander apportionment of air sorties to various missions or geographic areas. Also called JFACC. (JP 1-02)

joint force commander – A general term applied to a combatant commander, subunified commander, or joint task force commander authorized to exercise combatant command (command authority) or operational control over a joint force. Also called JFC. (JP 1-02).

joint terminal attack controller – A qualified (certified) Service member who, from a forward position, directs the action of combat aircraft engaged in close air support and other offensive air operations. A qualified and current joint terminal attack controller will be recognized across the Department of Defense as capable and authorized to perform terminal attack control. Also called JTAC. (JP3-09.3.)

list of targets – A tabulation of confirmed or suspect targets maintained by any echelon for informational and fire support planning purposes. (JP 1-02)

maneuver warfare – A warfighting philosophy that seeks to shatter the enemy's cohesion through a variety of rapid, focused, and unexpected actions which create a turbulent and rapidly deteriorating situation with which the enemy cannot cope. (MCRP 5-12C)

Marine air command and control system – A system which provides the aviation combat element commander with the means to command, coordinate, and control all air operations within an assigned sector and to coordinate air operations with other Services. It is composed of command and control agencies with communications-electronics equipment that incorporates a capability from manual through semiautomatic control. Also called MACCS. (JP 1-02)

Marine air-ground task force – The Marine Corps principal organization for all missions across the range of military operations, composed of forces task organized under a single commander capable of responding rapidly to a contingency anywhere in the world. The types of forces in the MAGTF are functionally grouped into four core elements: a command element, an aviation combat element, a ground combat element, and a combat service support element. The four core elements are categories of forces, not formal commands. The basic structure of the MAGTF never varies, though the number, size, and type of Marine Corps units comprising each of its four elements will always be mission dependent.

The flexibility of the organizational structure allows for one or more subordinate MAGTFs to be assigned, and other Service and/or foreign military forces, to be assigned or attached to the MAGTF. Also called MAGTF. (MCRP 5-12C)

night vision device – Any electro-optical device that is used to detect visible and infrared energy and provide a visible image. Night vision goggles, forward looking infrared, thermal sights, and low light level television are night vision devices. Also called NVD. See also night vision goggle(s); forward looking infrared. (JP 1-02)

night vision goggle(s) – An electro-optical image intensifying device that detects visible and near-infrared energy, intensifies the energy, and provides a visible image for night viewing. Night vision goggles can be either hand-held or helmet-mounted. Also called NVG. See also night vision device. (JP 1-02)

offensive air support – Those air operations conducted against enemy installations, facilities, and personnel to directly assist the attainment of MAGTF objectives by the destruction of enemy resources or the isolation of the enemy's military forces. Also called OAS. (MCRP 5-12C) OAS is one of the six functions of Marine aviation.

preplanned air support – Air support in accordance with a program, planned in advance of operations. Also called air support. (JP 1-02)

qualification – A status assigned to personnel based on certification and currency requirements. Upon successful completion of qualification criteria, commanding officers are authorized to issue an appropriate qualification letter. An individual failing to comply with currency requirements will result in the individual losing their respective qualification.

rules of engagement – Directives issued by competent military authority which delineate the circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered. Also called ROE. (JP 1-02)

sortie – In air operations, an operational flight by one aircraft. (JP 1-02)

strike coordination and reconnaissance – A mission flown for the purpose of acquiring and reporting deep air support targets and coordinating armed reconnaissance or air interdiction missions upon those targets. Also called SCAR. (MCRP 5-12C)

supporting arms coordination center – A single location on board an amphibious command ship in which all communication facilities incident to the coordination of fire support of the artillery, air, and naval gunfire are centralized. This is the naval counterpart to the fire support coordination center utilized by the landing force. Also called SACC. (JP 1-02)

suppression of enemy air defenses – That activity which neutralizes, destroys, or temporarily degrades surface-based enemy air defenses by destructive and/ or disruptive means. Also called SEAD. (JP 1-02)

tactical air command center – The principal United States Marine Corps air command and control agency from which air operations and air defense warning functions are directed. It is the senior agency of the US Marine air command and control system which serves as the operational command post of the aviation combat element commander. It provides the facility from which the aviation combat element commander and his battle staff plan, supervise, coordinate, and execute all current and future air operations in support of the Marine air-ground task force. The tactical air command center can provide integration, coordination, and direction of joint and combined air operations. Also called Marine TACC. (JP 1-02)

tactical air control center – The principal air operations installation (ship-based) from which all aircraft and air warning functions of tactical air operations are controlled. Also called Navy TACC. (JP 1-02)

tactical air control party – A subordinate operational component of a tactical air control system designed to provide air liaison to land forces and for the control of aircraft. Also called TACP. (JP 1-02)

tactical air coordinator (airborne) – An officer who coordinates, from an aircraft, the action of combat aircraft engaged in close support of ground or sea forces.
Also called TAC(A). (JP 1-02)

tactical air direction center – An air operations installation under the overall control of the tactical air control center (afloat)/tactical air command center, from which aircraft and air warning service functions of tactical air operations in an area of responsibility are directed. Also called TADC. (JP 1-02)

tactical air operations center – The principal air control agency of the US Marine air command and control system responsible for airspace control and management. It provides real time surveillance, direction, positive control, and navigational assistance for friendly aircraft. It performs real time direction and control of all anti-air warfare operations, to include manned interceptors and surface-to-air weapons. It is subordinate to the tactical air command center. Also called TAOC. (JP 1-02)

tactical recovery of aircraft and personnel – A mission performed by an assigned and briefed aircrew for the specific purpose of the recovery of personnel, equipment, and/or aircraft when the tactical situation precludes search and rescue (SAR) assets from responding and when survivors and their location have been confirmed. Also called TRAP. (MCRP 5-12C)

target list – The listing of targets maintained and promulgated by the senior echelon of command; it contains those targets that are to be engaged by supporting arms, as distinguished from a "list of targets" that may be maintained by any echelon as confirmed, suspected, or possible targets for informational and planning purposes. (JP 1-02)

terminal attack control – The authority to control the maneuver of and grant weapons release clearance to attacking aircraft. (JP3-09.3.)

terminal control – 1. The authority to direct aircraft to maneuver into a position to deliver ordnance, passengers, or cargo to a specific location or target. Terminal control is a type of air control. 2. Any electronic, mechanical, or visual control given to aircraft to facilitate target acquisition and resolution. See also terminal guidance. (JP3-09.3.)

terminal guidance – 1. The guidance applied to a guided missile between midcourse guidance and arrival in the vicinity of the target. 2. Electronic, mechanical, visual, or other assistance given an aircraft pilot to facilitate arrival at, operation within or over, landing upon, or departure from an air landing or airdrop facility. 3. Any electronic, mechanical, voice or visual communication that provides approaching aircraft or weapons additional information regarding a specific location or target. Terminal guidance is not a type of air control. Those providing terminal guidance do not have weapons release authority, or authority to direct the maneuver of aircraft. See also terminal control. (JP3-09.3.)

terminal guidance operations (TGO) - Terminal guidance is different from terminal attack control. TGO are actions that provide terminal guidance to weapons or aircraft to facilitate target engagement. TGO are many times conducted by SOF and make joint air attacks and SOF ground operations complementary. Enemy targets, such as mobile high-payoff targets, that are difficult to locate from the air are often more visible to ground SOF. Small ground SOF elements can sometimes search for, identify, and precisely report the location of these targets and with systems like global positioning system (GPS), laser designators, etc. or combinations of the above can provide target locations. Ground SOF may also be able to provide precise BDA of attacks on targets that may otherwise be obscured or hidden. TGO do not include authority to clear aircraft to release ordnance and should not be confused with terminal attack control. (JP 3-09.3)

time on station – The time that an aircraft can actually spend performing its assigned mission. It does not include the time transiting to and from the operating site. Also called TOS. (MCRP 5-12C)

time on target – 1. Time at which aircraft are scheduled to attack/photograph the target. 2. The actual time at which aircraft attack/photograph the target. 3. The time at which a nuclear detonation is planned at a specified desired ground zero. Also called TOT. (JP 1-02)

weaponing – The process of determining the quantity of a specific type of lethal or nonlethal weapons required to achieve a specific level of damage to a given target, considering target vulnerability, weapon effect, munitions delivery accuracy, damage criteria, probability of kill, and weapon reliability. (JP 1-02)

APPENDIX E

TACP MISSION ESSENTIAL TASK LIST

Duty Area 01.

Plan, develop and assess close air support (CAS) requirements in support of the ground combat maneuver plan.

01.1 Participate in the Military Decision Making Process (MDMP) or Marine Corps Planning Process (MCPD).

01.2 Coordinate the integration of surface fire support (NSFS, field artillery, and mortars) with close air support (CAS) to support the commander's concept of operations.

01.3 Interpret fire support coordination measures and impact on CAS mission planning.

01.4 Integrate joint and component airspace control agencies and joint force connectivity to support CAS operations.

01.5 Interpret airspace coordination measures and their impact on CAS mission planning.

Duty Area 02.

Plan CAS and suppression of enemy air defense (SEAD) missions in support of the ground combat maneuver plan, based on knowledge of the enemy situation - ground order of battle (GOB) and air defense posture.

02.1 Apply the products of the intelligence cycle to CAS mission planning.

02.2 Plan CAS targeting in accordance with the Attack Guidance Matrix (AGM) based on knowledge of the enemy ground order of battle.

02.3 Plan for the suppression of enemy air defenses (SEAD) during the execution of CAS missions based on knowledge of the enemy air order of battle.

Duty Area 03.

Conduct target analysis relative to CAS in order to make weaponeering recommendation for the employment of CAS in support of the ground combat maneuver plan.

03.1 Apply the products of the targeting process to CAS mission planning.

03.2 Locate, validate, and recommend potential CAS targets for suitability in accordance with the Attack Guidance Matrix (AGM).

Duty Area 04.

In preparation for CAS, advise the ground maneuver element commander on the proper employment of CAS assets in support of the ground combat maneuver plan.

04.1 Advise ground unit commander on fixed wing/rotary wing CAS, fixed wing/rotary wing FAC (A), and CAS Unmanned Aerial Vehicle (UAV) / Remotely Piloted Vehicle (RPV) capabilities and limitations and the use and timely submission of Joint Tactical Air Strike Requests (JTAR).

04.2 Assess effects of weather, terrain, and threat air defenses on CAS capabilities and advise the unit commander accordingly.

04.3 Explain effects of aviation ordnance in order to recommend appropriate ordnance to obtain desired weapons effects.

04.4 Advise ground unit commander on integrating artillery and naval surface fire support (NSFS) systems with CAS.

04.5 Advise ground unit commander on tactical risk management and CAS specific rules of engagement (ROE) in order to mitigate the risk of unintended consequences.

Duty Area 05.

Plan and coordinate CAS missions in support of the ground combat maneuver plan.

05.1 Plan day CAS missions, fixed and rotary, in support of the ground combat maneuver plan.

05.2 Plan night/adverse weather CAS missions, fixed and rotary, in support of the ground combat maneuver plan.

05.3 Plan day CAS missions, using Joint Air /Attack Team (JAAT) tactics, in support of the ground combat maneuver plan.

05.4 Plan night/adverse weather CAS missions, using JAAT tactics, in support of the ground combat maneuver plan.

05.5 Plan laser guided weapon system CAS, in support of the ground combat maneuver plan.

05.6 Plan required coordination for coordinate-dependant weapons deliveries in support of the ground combat maneuver plan.

05.7 Plan AC-130 fire missions in support of the ground combat maneuver plan.

05.8 Plan required coordination for integrated attack by multiple fire support assets (artillery, mortars, naval surface fires and CAS) to support CAS with target marking, SEAD, and illumination.

05.9 Develop requisite knowledge to derive accurate target location, match target location format to weapon system, and provide target designation or target marking via means other than indirect fire assets.

Duty Area 06.

Request CAS missions in support of the ground combat maneuver plan.

06.1 Operate organic communications equipment in order to establish communications on designated nets to request and control CAS.

06.2 Use applicable command and control agencies for requesting CAS missions.

06.3 Complete Joint Tactical Air Strike Request (JTAR) form and route in accordance with JP 3-09.3.

Duty Area 07.

Provide terminal attack control of CAS missions in support of the ground combat maneuver plan.

07.1 Control day CAS missions, fixed and/or rotary wing, in support of the ground combat maneuver plan.

07.2 Control night/adverse weather CAS missions, fixed and/or rotary wing, in support of the ground combat maneuver plan.

07.3 Demonstrate capability to control day CAS missions, using JAAT tactics, in support of the ground combat maneuver plan.

07.4 Demonstrate capability to control night/adverse weather CAS missions, using JAAT tactics, in support of the ground combat maneuver plan.

07.5 Control laser guided weapon system CAS missions in support of the ground combat maneuver plan.

07.6 Demonstrate capability to control coordinate dependant weapons deliveries for CAS missions in support of the ground combat maneuver plan.

07.7 Demonstrate capability to control AC-130 fire missions in support of the ground combat maneuver plan.

07.8 Demonstrate capability to coordinate attack by multiple fire support assets (such as artillery, mortars, and naval surface fires), to support CAS with target marking, SEAD, and illumination. Training may be conducted with live, training or simulated ordnance.

07.9 Demonstrate capability to de-conflict assets in target area to include:

- a. Aircraft to aircraft
- b. Aircraft and aircraft munitions
- c. Aircraft and direct/indirect fires

Duty Area 08.

Conduct post-strike assessment for input in the development of battle damage assessment (BDA) and follow-on entry into the targeting process.

08.1 Provide input into the battle damage assessment (BDA) and follow-on entry into the targeting process.

08.2 Complete a Mission Report (MISREP) and re-attack recommendation for BDA.

08.3 Route Mission Report in accordance with CAS JTTP.

Duty Area 09.

Advise commanders of ground units on the suitability of targets as objectives for aircraft, types of aircraft best suited for particular missions, and on marking of targets and front-line positions.

09.1 Maintain liaison with ground intelligence officers to obtain information on enemy positions, location of targets, position of front lines, and time aircraft are needed for strike.

09.2 Arrange air support missions by contacting aviation units and giving number and type of aircraft needed, target information, armament desired, and time of attack.

09.3 Coordinate all aviation assault support missions for ground units.