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MARINE CORPS ORDER 3500.46

From: Commandant of the Marine Corps
To: Distribution List

Subj: AVIATION TRAINING AND READINESS (T&R) MANUAL, FA-18
(SHORT TITLE: T&R MANUAL, FA-18)

Ref: (a) MCO P3500.14H
(b) MCO 5215.1H

Encl: (1) T&R Manual, FA-18

1. Purpose. To publish policies, procedures and standards regarding the training of FA-18 aircrew per reference (a).
2. Cancellation. T&R Manual, MCO P3500.15C, Volume 2, Chapter 3.
3. Background. Significant changes to Reference (a) directed a revision to this Manual in the following categories: Unit Mission Statement, Unit Core Capability Statement, Unit Mission Essential Task List, Unit Core Skill Proficiency requirements, Unit Instructor requirements, and T&R syllabi structure. Reference (a) prescribes a unique template to provide the aviation commander with standardized programs of instruction. As such, this Order deviates from the Five Paragraph Order Format outlined in reference (b).
4. Recommendations. Recommended changes to this Order are invited, and will be submitted via the syllabus sponsor and the appropriate chain of command to: Commanding General, Training and Education Command (C 4610), Marine Corps Combat Development Command, 3300 Russell Road, Quantico, VA 22134-5001.
5. Reserve Applicability. This Manual is applicable to the Marine Corps Total Force.
6. Certification. Reviewed and approved this date.

EDWARD HANLON, JR.
By direction

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FA-18A/C/D PILOT AND WSO

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*** * NOTE * ***

CREW RESOURCE MANAGEMENT (CRM) AND OPERATIONAL RISK MANAGEMENT (ORM) FACTORS
SHALL BE BRIEFED ON ALL FLIGHTS AND/OR EVENTS.

100. MARINE FIGHTER ATTACK SQUADRON (FA-18A/C) UNIT TEMPLATE, MISSION STATEMENT, UNIT CORE CAPABILITY, UNIT CORE COMPETENCY

NOTE

The capabilities defined and described in the core capability and unit template sections are provided to ensure each like-squadron maintains a common base of training and depth of capabilities. When resources permit, and when in the judgment of the commander additional training would significantly increase the unit's war fighting capability, training to a level above these base capabilities is permitted. It is incumbent upon and expected of the commander to balance any increase in the depth of core capabilities against the long-term health and readiness of the unit while staying within resource constraints.

1. VMFA Mission. Support the MAGTF Commander by destroying surface targets and enemy aircraft, day or night under all weather conditions during expeditionary, joint or combined operations.

2. Mission Essential Task List (METL)

- a. (UJTL TA 1.1.4) Conduct Sea and Air Deployment Operations
 - Maintain the capability to deploy and operate from naval shipping, advanced bases, and expeditionary airfields.
 - Maintain the capability to conduct extended range operations employing aerial refueling.
 - Perform organizational maintenance on assigned aircraft.
- b. (UJTL TA 3.2.1) Conduct Fire Support
 - Conduct Offensive Anti-Air Warfare.
 - Conduct Offensive Air Support.
- c. (UJTL TA 3.2.2) Conduct Close Air Support
 - Conduct escort of friendly ground forces.
 - Conduct Assault Support Escort.
- d. (UJTL TA 3.2.3) Conduct Interdiction Operations
 - Conduct armed reconnaissance.
 - Conduct Strike Coordination and Reconnaissance (SCAR).
- e. (UJTL TA 3.2.4) Conduct Joint Suppression of Enemy Air Defenses
- f. (UJTL TA 3.2.8) Conduct Air to Air Operations
 - Conduct Anti-Air Warfare.
 - Intercept and destroy enemy aircraft in conjunction with ground or airborne fighter control under all weather conditions.
 - Conduct self escort and escort of friendly aircraft and ground forces.

3. Table of Organization. Refer to Table of Organization 8830 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for FA-18A/C units. As of this publication date, FA-18A/C units are authorized:

Squadron
12 aircraft
19 Pilots

4. Core Capability. A core capable squadron is able to sustain 20 sorties on a daily basis during contingency/combat operations. The above sortie rates are based on a 1.4 hour average sortie duration and assumes 70 percent FMC aircraft and 90 percent T/O aircrew on hand. If unit FMC aircraft < 70 percent or T/O aircrew < 90 percent, core capability will be degraded by a like percentage. A core capable squadron is able to accomplish all tasks designated in the unit METL from a main base, expeditionary base, or carrier.

5. METL/Core Skill Matrix. FA-18A/C core skills directly support the METL as follows:

METL	F/A-18A/C CORE SKILL										CORE PLUS	
	BAS	AI	AR	CAS	TRXN	BFM	ACM	NS HI	LAT	AAR	FCLP	NS Low
a. Conduct Sea and Air Deployment Ops								X		X	X	
b. Conduct Fire Support	X	X	X	X	X	X	X	X	X	X		X
c. Conduct Close Air Support	X			X	X			X	X	X		X
d. Conduct Interdiction Operations	X	X	X		X	X	X	X	X	X		X
e. Conduct Joint Suppression of Enemy Air Defenses	X	X	X	X	X			X	X	X		X
f. Conduct Air to Air Operations					X	X	X	X		X		

6. FA-18A/C Core Model Minimum Requirements (CMMR). Squadron core competency reflects the minimum level of competency a squadron must achieve to perform its core capability. Squadron core competency is measured in terms of minimum Core Skill Proficiency (CSP) and minimum numbers of flight leaders per paragraphs a. and b. below:

a. Minimum Unit CSP Requirements. As a minimum, in order to be considered Core Competent, a squadron must possess the following numbers of pilots who are proficient in each core skill (Unit CSP). In order to be considered proficient in a core skill (individual CSP), a pilot must attain and maintain proficiency in core skill events, as delineated in paragraphs (1) and (2) below.

* NOTE: NS Low is a core plus skill. Proficiency in NS Low is not required to obtain unit CSP and will not contribute to unit T-level readiness. Below are FA-18 community recommended unit/individual CSP standards for NS Low.

CORE SKILL *CORE PLUS	FA-18A/C Unit CSP Requirements Pilots
BAS	12
AI	12
AR	12
CAS	12
TRXN	12
BFM	12
ACM	12
NS(H)	12
LAT	12
AAR	12
*NS Low	*8

(1) Events Required to Attain Individual CSP. To initially attain CSP, a pilot must successfully complete all of the T&R events listed in the chart below for that core skill:

FA-18A/C Pilot	BAS	AI	AR	CAS	TRXN	BFM	ACM	NS HI	LAT	AAR	NS Low
T&R event requirements to attain CSP	S220	270	S260	250	S202	230	S240	S209	S204	200	410
	221	271	261	251	203	231	S241	210	205	201	411
	222	272	262	252		232	242	211	206		412
	223		360	S350		233	243	212	207		
	224			352		234	244	213	208		
	225					235	245	214			
	226					236	S330				
	227						S331				
	228						333				
	S320						334				
	S321										
	322										

(2) Events Required to Maintain Individual CSP. To maintain CSP, a pilot must maintain proficiency in all of the T&R events listed in the chart below for that core skill.

FA-18A/C	BAS	AI	AR	CAS	TRXN	BFM	ACM	NS HI	LAT	AAR	NS Low
T&R event requirements to maintain CSP	S220	270	S260	250	S202	230	S241	210	208	200	412
	221	271	261	251	203	231	243			201	
	222	272	262	252		232	244				
	223		360	S350		233	S331				
	224			352		234	333				
	225					235	334				
	226					236					
	227										
	228										
	S320										
	S321										
	322										

b. Minimum Combat Leader Requirements. At a minimum, in order to be considered Core Competent, a squadron must possess the following numbers of pilots with the listed flight leadership designations.

FA-18A/C	
FLT LD DESG	SQDN PILOTS
MSN CMDR	4
DIV LDR	6
SEC LDR	10

7. Qualifications And Designations

a. Qualification. A status assigned to personnel based on demonstration of proficiency in a specific skill. Specific criteria to achieve qualifications are delineated in the previous tables or IAW the MAWTS-1 Course Catalog. Upon successful completion of qualification criteria, commanding officers may issue an appropriate qualification letter for inclusion in the NATOPS jacket and APR. Aircrew do not lose a qualification as a function of refly factor for individual events. Loss of proficiency (delinquent refly factor) for all associated qualification events (events with measurable refly factor; '*' refly factor events excluded) constitutes loss of that qualification. Re-qualification requires demonstration of proficiency. Re-qualification shall be achieved by successfully re-completing all R-coded events associated with the respective qualification (unless waived per paragraph 305 of the Aviation T&R Program Manual). Loss of proficiency (delinquent refly factor) for all associated qualification core skill events constitutes loss of that qualification. Re-qualification requires demonstration of proficiency in the "R" coded events listed in the F/A-18A/C/D training tables.

b. 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. Specific designation requirements are delineated in the previous tables. Commanders shall issue a designation letter to the individual upon the occasion of original designation, with appropriate copies for inclusion in the NATOPS jacket and APR.

c. Qualifications And Designations Tables. These tables serve to delineate the events required for initial and re-qualification of all qualifications and designations. All stage lectures, briefs, squadron training and prerequisites shall be complete prior to completing final events. Qualification and designation letters signed by the commanding officer shall be placed in the NATOPS and APR jackets. Loss of proficiency for all associated core skill events causes the associated qualification to be lost. Regaining the qualification requires a demonstration of proficiency through the "R" coded syllabus. The commanding officer may tailor a syllabus based on the experience of the aircrew.

Qualification (TRACKING CODE)	Initial Event Qualification Requirements
NATOPS (600E)	IAW OPNAV 3710.7 and an annual qualification letter signed by the commanding officer.
INST (601E)	IAW OPNAV 3710.7 and an annual qualification letter signed by the commanding officer.
LAT QUAL (610E)	S204(R), 205(R), 206, 207, 208E(R)
DAY CQ (613E)	613E(R)
NIGHT CQ (614E)	614E(R)
ACM QUAL (616E)	S230(R), S231, 230, 231, 232, 233(R), 234, 235, 236(R), S240, S241(R), 242, 243(R), 244(R), 245E
NS QUAL (HI) (621E)	S209, 210, 211(R), 212, 213(R), 214E
NS QUAL (Low) (622E)	410, 411, 412E

Designation (TRACKING CODE)	Designation Requirements
PMCF (631E)	IAW OPNAV 3710.7 and an annual designation letter signed by the commanding officer
SECTION LEAD (649E)	640E, 641E, 642E, 643E, 644E, 645E, 646E, 647E, 648E, 649E(R). The IUT shall be complete with all 200 and 300 level sorties prior to beginning section lead workup.
DIVISION LEAD (659E)	650E, 651E, 652E, 653E, 659E(R)
MISSION COMMANDER (679E)	670E, 671E, 679E(R)
LAT(I) (681E)	IAW the MAWTS-1 Course Catalog.
ACT(I) (688E)	
TOPGUN (696)	
MDTC (697)	
NS(I) (698E)	
WTI (699)	

d. Instructor Requirements. A squadron should possess the following number of pilots with the listed instructor designations IAW the FA-18 T&R and MCO 3500.12C (WTPP).

FA-18A/C	
INSTRUCTOR DESIGNATION	SQDN Pilots
LATI	2
NSI	3
ACTI	4
WTI	2
LSO	3
MDTC/TOPGUN	2

8. Currency and Proficiency

a. Currency. A control measure used to provide an additional margin of safety based on exposure frequency to a particular skill. It is a measure of time since the last event demanding that specific skill. Loss of currency does not affect a loss of Combat Readiness Percentage (CRP). For example, currency determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for individual type mission profiles can be found in the Aviation T&R Program Manual.

b. Proficiency. A measure of achievement of a specific skill. Refly factors establish the maximum time between demonstration of those particular skills. CRP is a measurement of "demonstrated proficiency." In order to log a T&R code, aircrew must satisfactorily complete sortie requirements IAW assigned Mission Performance Standards. Deviations from sortie support requirements shall be tracked using TRK598 and TRK599 codes. If an aircrew exceeds the refly factor for a particular event, the individual loses CRP for that particular event. To regain proficiency, an individual shall complete the delinquent event with a proficient crewman / flight lead. If an entire unit loses proficiency, unit instructors shall regain proficiency by completing an event with instructors from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. If a unit has only one instructor and cannot complete the event with an instructor from another unit, he shall regain proficiency with another aircraft commander or as designated by his commanding officer.

9. Core Progression Model. The FA-18A/C Core Progression Model is depicted as follows:

FA-18A/C CORE PROGRESSION MODEL

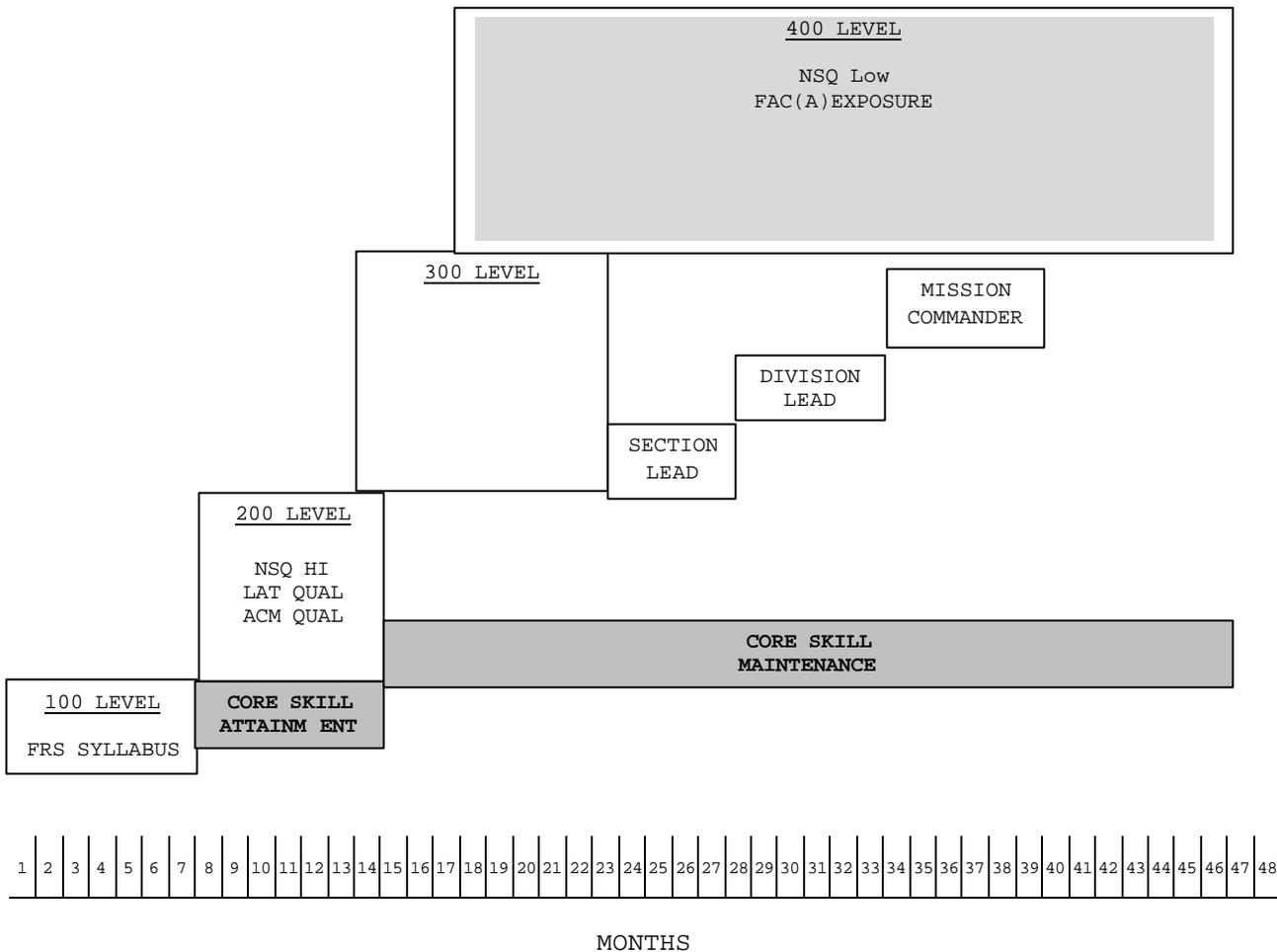


Figure 1.--FA-18A/C Core Progression Model.

101. MARINE FIGHTER ATTACK SQUADRON (ALL WEATHER)(FA-18D) UNIT TEMPLATE,
MISSION STATEMENT, UNIT CORE CAPABILITY, UNIT CORE COMPETENCY

NOTE

The capabilities defined and described in the core capability and unit template sections are provided to ensure each like-squadron maintains a common base of training and depth of capabilities. When resources permit, and when in the judgment of the commander additional training would significantly increase the unit's war fighting capability, training to a level above these base capabilities is permitted. It is incumbent upon and expected of the commander to balance any increase in the depth of core capabilities against the long-term health and readiness of the unit while staying within resource constraints.

1. VMFA(AW) Mission. Support the MAGTF Commander by providing supporting arms coordination, conducting multi-sensor imagery, and destroying surface targets and enemy aircraft day or night under all weather conditions during expeditionary, joint, or combined operations.
2. Mission Essential Task List (METL)
 - a. (UJTL TA 1.1.4) Conduct Sea and Air Deployment Operations
 - Maintain the capability to deploy and operate from naval shipping, advanced bases, and expeditionary airfields.
 - Maintain the capability to conduct extended range operations employing aerial refueling.
 - Perform organizational maintenance on assigned aircraft.
 - b. (UJTL TA 2) Develop Intelligence
 - Conduct Multi-sensor Imagery, visual reconnaissance, and provide battlefield damage assessment.
 - c. (UJTL TA 3.2.1) Conduct Fire Support
 - Conduct Offensive Anti-Air Warfare.
 - Conduct Offensive Air Support.
 - d. (UJTL TA 3.2.2) Conduct Close Air Support
 - Conduct escort of friendly ground forces.
 - Conduct Assault Support Escort.
 - e. (UJTL TA 3.2.3) Conduct Interdiction Operations
 - Conduct armed reconnaissance.
 - Conduct Strike Coordination and Reconnaissance (SCAR).
 - f. (UJTL TA 3.2.4) Conduct Joint Suppression of Enemy Air Defenses
 - g. (UJTL TA 3.2.8) Conduct Air to Air Operations
 - Conduct Anti-Air Warfare.
 - Intercept and destroy enemy aircraft in conjunction with ground or airborne fighter control under all weather conditions.
 - Conduct self escort and escort of friendly aircraft and ground forces.
 - h. (UJTL TA 3.3) Coordinate Battlespace Maneuver and Integrate with Firepower
 - Conduct combined arms coordination and control operations.
 - Conduct Tactical Recovery of Aircraft and Personnel (TRAP) operations.

3. Table of Organization. Refer to Table of Organization 8840 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for FA-18D units. As of this publication date, FA-18D units are authorized:

FA-18D Squadron
12 aircraft
19 Pilots
19 WSOs

4. Core Capability. A core capable squadron is able to sustain 20 sorties on a daily basis during contingency/combat operations. The above sortie rates are based on a 1.4 hour average sortie duration and assumes 70 percent FMC aircraft and 90 percent T/O aircrew on hand. If unit FMC aircraft < 70 percent or T/O aircrew < 90 percent, core capability will be degraded by a like percentage. A core capable squadron is able to accomplish all tasks designated in the unit METL from a main base, expeditionary base or aircraft carrier.

5. METL/Core Skill Matrix. FA-18D core skills directly support the METL as follows:

METL	FA-18D CORE SKILL									
	BAS	AI	AR	CAS	TRXN	BFM	ACM	NS HI	LAT	AAR
a. Conduct Sea and Air Deployment Ops								X		X
b. Develop Intelligence		X	X					X		X
c. Conduct Fire Support	X	X	X	X	X	X	X	X	X	X
d. Conduct Close Air Support	X			X	X			X	X	X
e. Conduct Interdiction Operations	X	X	X		X	X	X	X	X	X
f. Conduct Joint Suppression of Enemy Air Defenses	X	X	X		X	X	X	X		X
g. Conduct Air to Air Operations					X	X	X	X		X
h. Coordinate Battlespace Maneuver and Integrate with Firepower	X	X	X	X				X		X

METL	FA-18D CORE SKILL			CORE PLUS	
	TAR	FAC(A)	TAC(A)	FCLP	NS Low
a. Conduct Sea and Air Deployment Ops				X	
b. Develop Intelligence	X				
c. Conduct Fire Support		X	X		X
d. Conduct Close Air Support		X	X		X
e. Conduct Interdiction Operations			X		X
f. Conduct Joint Suppression of Enemy Air Defenses		X	X		X
g. Conduct Air to Air Operations					
h. Coordinate Battlespace Maneuver and Integrate with Firepower				X	

6. FA-18D Core Model Minimum Requirements (CMMR). Squadron core competency reflects the minimum level of competency a squadron must achieve to perform its core capability. Squadron core competency is measured in terms of minimum Core Skill Proficiency (CSP) and minimum numbers of flight leaders per paragraphs a. and b. below:

a. Minimum Unit CSP Requirements. As a minimum, in order to be considered Core Competent, a squadron must possess the following numbers of aircrew who are proficient in each core skill (Unit CSP). In order to be considered proficient in a core skill (individual CSP), an aircrew must attain and maintain proficiency in core skill events, as delineated in paragraphs (1) and (2) below.

*NOTE: NS Low is a core plus skill. Proficiency in NS Low is not required to obtain unit CSP and will not contribute to unit T-level readiness. Below are FA-18 community recommended unit/individual CSP standards for NS Low.

FA-18D Unit CSP Requirements			
CORE SKILL *CORE PLUS	Pilots	WSOs	Crews
BAS	12	12	12
AI	12	12	12
AR	12	12	12
CAS	12	12	12
TRXN	12	12	12
BFM	8	8	8
ACM	8	8	8
NS(H)	12	12	12
LAT	12	12	12
AAR	12		12
TAR	8	8	8
FAC(A)	8	8	8
TAC(A)	4		4
*NS Low	*8	*8	*8

Note: One TAC(A) CSP crewman constitutes a TAC(A) crew.

(1) Events Required to Attain Individual CSP. To initially attain CSP, a pilot/WSO must successfully complete all of the T&R events listed in the chart below for that core skill:

FA-18D Pilot/WSO	BAS	AI	AR	CAS	TRXN	BFM	ACM	NS HI	LAT	AAR	TAR	FAC(A)	TAC(A)	FCLP	*NS Low
T&R event requirements to attain competency	S220	270	S260	250	S202	230	S240	S209	S204	200	280	380	390	490	410
	221	271	261	251	203	231	S241	210	205	201	281	381	391	491	411
	222	272	262	252		232	242	211	206		282	382		492	412
	223		360	S350		233	243	212	207			383			
	224			352		234	244	213	208			384			
	225					235	245	214				385			
	226					236	S330					386			
	227						S331					387			
	228						333								
	S320						334								
	S321														
	322														

(2) Events Required to Maintain Individual CSP. To maintain CSP, a Pilot/WSO must maintain proficiency in all of the T&R events listed in the chart below for that core skill.

FA-18D Pilot/WSO	BAS	AI	AR	CAS	TRXN	BFM	ACM	NS HI	LAT	AAR	TAR	FAC(A)	TAC(A)	*FCLP	*NS Low
T&R event requirements to maintain competency	S220 221 222 223 224 225 226 227 228 S320 S321 322	270 271 272	S260 261 262 360	250 251 252 S350 352	S202 203	230 231 232 233 236	S241 243 244 S331 333 334	210	208	200 201	280 281 282	380 381 382 383 384 385 386 387	390 391	491 492	412
*Core Plus skills															

b. Minimum Combat Leader Requirements. At a minimum, in order to be considered Core Competent, a squadron must possess the following numbers of aircrew with the listed flight leadership designations.

FLT LD DESG	Pilots	WSOs
MSN CMDR	4	4
DIV LDR	6	NA
SEC LDR	10	NA

7. Qualifications And Designations

a. Qualification. A status assigned to personnel based on demonstration of proficiency in a specific skill. Specific criteria to achieve qualifications are delineated in the previous tables or IAW the MAWTS-1 Course Catalog. Upon successful completion of qualification criteria, commanding officers may issue an appropriate qualification letter for inclusion in the NATOPS jacket and APR. Aircrew do not lose a qualification as a function of refly factor for individual events. Loss of proficiency (delinquent refly factor) for all associated qualification events (events with measurable refly factor; '*' refly factor events excluded) constitutes loss of that qualification. Re-qualification requires demonstration of proficiency. Re-qualification shall be achieved by successfully re-completing all R-coded events associated with the respective qualification (unless waived per paragraph 305 of the Aviation T&R Program Manual). Loss of proficiency (delinquent refly factor) for all associated qualification core skill events constitutes loss of that qualification. Re-qualification requires demonstration of proficiency in the "R" coded events listed in the F/A-18A/C/D training tables.

b. 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. Specific designation requirements are delineated in the previous tables. Commanders shall issue a designation letter to the individual upon the occasion of original designation, with appropriate copies for inclusion in the NATOPS jacket and APR.

c. Qualifications And Designations Tables. These tables serve to delineate the events required for initial and re-qualification of all qualifications and designations. All stage lectures, briefs, squadron

training and prerequisites shall be complete prior to completing final events. Qualification and designation letters signed by the commanding officer shall be placed in the NATOPS and APR jackets. Loss of proficiency for all associated core skill events causes the associated qualification to be lost. Regaining the qualification requires a demonstration of proficiency through the "R" coded syllabus. The commanding officer may tailor a syllabus based on the experience of the aircrew.

Qualification (TRACKING CODE)	Initial Event Qualification Requirements.
NATOPS (600E)	IAW OPNAV 3710.7 and an annual qualification letter signed by the commanding officer.
INSTRUMENT (601E)	IAW OPNAV 3710.7 and an annual qualification letter signed by the commanding officer.
LAT QUAL (610E)	S204(R), 205(R), 206, 207, 208E(R)
DAY CQ (613E)	613E(R)
NIGHT CQ (614E)	614E(R)
ACM QUAL (616E)	S230(R), S231, 230, 231, 232, 233(R), 234, 235, 236(R), S240, S241(R), 242, 243(R), 244(R), 245E
NS QUAL (HI) (621E)	S209, 210, 211(R), 212, 213(R), 214E
NS QUAL (LO) (622E)	410, 411, 412E
FAC(A) QUAL (619E)	380, 381(R), 382(R), 383, 384, 385(R), 386, 387E
TAC(A) QUAL (623E)	390(R), 391E

Designation (TRACKING CODE)	Designation Requirements.
PMCF (631E)	IAW OPNAV 3710.7 and an annual designation letter signed by the commanding officer.
SECTION LEAD (649E)	640E, 641E, 642E, 643E, 644E, 645E, 646E, 647E, 648E, 649E(R). The IUT shall be complete with all 200 and 300 level sorties not including FAC(A)-380, 387E and TAC(A)-390, 391E prior to beginning section lead workup.
DIVISION LEAD (659E)	650E, 651E, 652E, 653E, 659E(R).
MISSION COMMANDER (679E)	670E, 671E, 679E(R).
LAT(I) (681E)	IAW the MAWTS-1 Course Catalog.
ACT(I) (688E)	
TOPGUN (696)	
MDTC (697)	
NS(I) (698E)	
WTI (699)	
FAC(A)I (683E)	
TAC(A)I (689E)	

d. Instructor Requirements. A squadron should possess the following numbers of Pilots/WSOs with the listed instructor designations IAW MCO 3500.12C (WTTP).

Instructor Designation	Pilots	WSOs
LATI	2	NA
NSI	3	3
ACTI	3	3
FAC(A)I	4	
TAC(A)I	2	
WTI	2	2
LSO	2	NA
MDTC/TOPGUN	1	1

8. Currency and Proficiency

a. Currency. A control measure used to provide an additional margin of safety based on exposure frequency to a particular skill. It is a measure of time since the last event demanding that specific skill. Loss of currency does not affect a loss of Combat Readiness Percentage (CRP). For example, currency determines minimum altitudes in rules of conduct based upon the most recent low altitude fly date. Specific currency requirements for individual type mission profiles can be found in the Aviation T&R Program Manual.

b. Proficiency. A measure of achievement of a specific skill. Refly factors establish the maximum time between demonstration of those particular skills. CRP is a measurement of "demonstrated proficiency." If an aircrew exceeds the refly factor for a particular event, the individual loses CRP for that particular event. To regain proficiency, an individual shall complete the delinquent event with a proficient crewman/flight lead. If an entire unit loses proficiency, unit instructors shall regain proficiency by completing an event with instructors from a like unit. If not feasible, the instructor shall regain proficiency by completing the event with another instructor. If a unit has only one instructor and cannot complete the event with an instructor from another unit, he shall regain proficiency with another aircraft commander or as designated by his commanding officer.

9. Core Progression Model. The FA-18D Core Progression Model is depicted as follows:

FA-18D CORE PROGRESSION MODEL

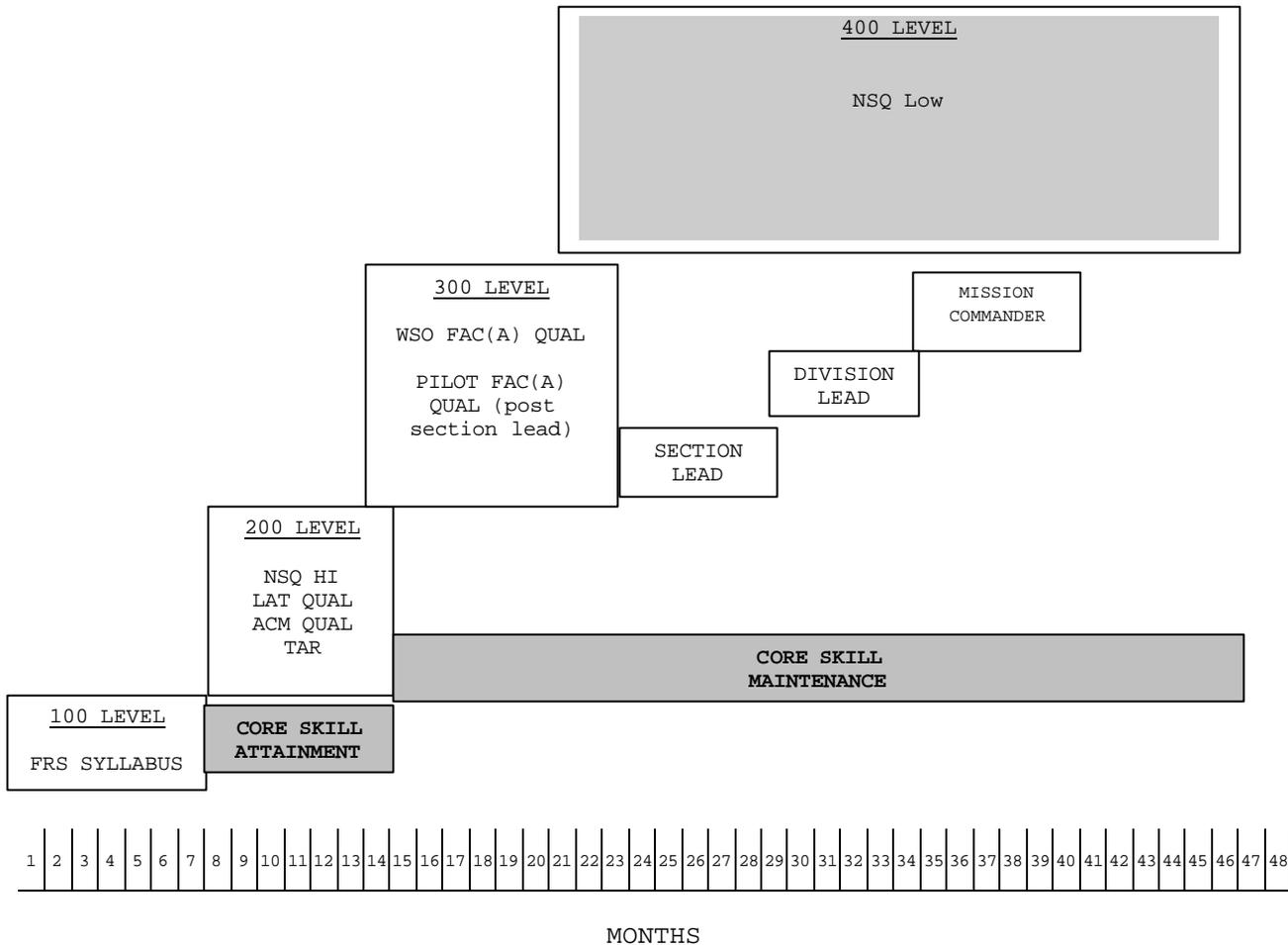


Figure 2.--FA-18D Core Progression Model.

102. PROGRAM OF INSTRUCTION (POI) FOR BASIC/TRANSITION/CONVERSION PILOT AND WSO (CAT I/II)

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-32	100 Level Training (CAT I/II)	FRS
33-56	200 Level Training	Tactical Squadron
57-80	300 Level Training	Tactical Squadron
81-86	400 Level Training	Tactical Squadron

103. POI FOR COMPREHENSIVE REFRESHER PILOT AND WSO (CAT III). (731 days or greater since last FA-18 flight.)

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-21	100 Level Training (CAT III)	FRS
22-30	200 Level Training	Tactical Squadron
31-37	300 Level Training	Tactical Squadron
38-42	400 Level Training	Tactical Squadron

104. POI FOR MODIFIED REFRESHER PILOT AND WSO (CAT IV). (486 days or greater but less than 730 days since last FA-18 flight.)

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-6	100 Level Training (CAT IV)	FRS
7-15	200 Level Training	Tactical Squadron
16-22	300 Level Training	Tactical Squadron
23-27	400 Level Training	Tactical Squadron

105. POI FOR REFRESHER PILOT SAFE-FOR-SOLO (CAT V). (366 days or greater but less than 485 days since last FA-18 flight.)

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-2	100 Level Training (SFS)	FRS
3-11	200 Level Training	Tactical Squadron
12-18	300 Level Training	Tactical Squadron
19-23	400 Level Training	Tactical Squadron

110. GROUND/ACADEMIC TRAINING COURSES OF INSTRUCTION. To ensure the highest quality of training and readiness, squadron commanding officers will ensure that the T&R stage academic syllabus is conducted in accordance with the MAWTS-1 Course Catalog. This squadron academic training should be conducted once a week as a minimum. To add to the quality and scope of lectures given, the commanding officer should ensure that appropriately qualified individuals are sent to the schools listed below as a minimum.

<u>COURSE</u>	<u>ACTIVITY</u>
WTI	MAWTS-1 MCAS Yuma
Marine Division Tactics Course (MDTC)	MAWTS-1 MCAS Yuma
Navy Fighter Weapons School	NAS Fallon
HARM University	China Lake
SLAM School	Point Mugu
SLATS	NAS Fallon
Warfighter School	Tucson

120. FLIGHT/SIMULATOR/EVENT TRAINING FOR BASIC/TRANSITION/CONVERSION PILOT AND WSO (FA-18A/C/D)

1. Purpose. To provide training for individuals that do not have the 7523/7525 MOS and have not previously received training in the FA-18.

2. General

a. Basic/Transition/Conversion (CAT I/II) aircrew will be assigned to fly the entire syllabus to include the entire FRS Basic training syllabus.

b. Pilot training is provided at one of three joint FRSs (VMFAT-101, VFA-106, or VFA-125).

c. The pilot training standard is the CNO approved FA-18A/C/D pilot syllabus.

d. WSO training is provided only at VMFAT-101. The WSO training standard is the VMFAT-101, CNO sanctioned FA-18D WSO syllabus.

e. The CNO FRS Pilot and WSO training syllabi are not updated in conjunction with this Order and are not included herein.

3. 200 Level Training Stages

	A/C Sort	A/C Hrs	A/C CRP	D Sort	D Hrs	D CRP
Air-Air Refueling	2	2.6	0.6	2	2.6	0.6
Threat Reaction	1	1.3	0.4	1	1.3	0.4
Low Altitude Tactics	4	5.2	1.0	4	5.2	1.0
Night Systems (High)	5	6.5	1.0	5	6.5	1.0
Basic Air-Surface	8	10.4	3.5	8	10.4	3.5
Basic Fighter Maneuvering	7	9.1	3.0	7	9.1	2.4
Air Combat Maneuvering	4	5.2	1.4	4	5.2	1.4
Close Air Support	3	3.9	1.5	3	3.9	1.5
Armed Reconnaissance	2	2.6	1.1	2	2.6	0.8
Air Interdiction	3	3.9	1.5	3	3.9	1.5
Tactical Aerial Recon	0	0	*	3	3.9	0.9
Totals	39	50.7	15	42	54.6	15

4. 300 Level Training Stages

	A/C Sort	A/C Hrs	A/C CRP	D Sort	D Hrs	D CRP
Basic Air-Surface	4	5.2	4.6	4	5.2	3.5
Air Combat Maneuvering	7	9.1	6.9	3	3.9	3.1
Close Air Support	3	3.9	2.9	3	3.9	2.9
Armed Reconnaissance	4	5.2	3.2	4	5.2	2.8
Air Interdiction	3	3.9	2.4	3	3.9	2.4
Forward Air Controller (A)	*	*	*	8	10.4	4.6
Tactical Air Coordinator (A)	*	*	*	2	2.6	0.7
Totals	21	27.3	20	27	35.1	20

5. 400 Level Training Stages

	A/C Sort	A/C Hrs	A/C CRP	D Sort	D Hrs	D CRP
Night Systems (Low)	3	3.9	0.9	3	3.9	0.9
Air Combat Maneuvering	6	7.8	2.0	6	7.8	2.0
Armed Reconnaissance	2	2.6	0.6	2	2.6	0.6
Air Interdiction	3	3.9	1.5	3	3.9	1.5
Forward Air Controller (A)	2	2.6	*	*	*	*
Totals	16	20.8	5	14	18.2	5

6. 200, 300, 400 Level Totals

	A/C Sort	A/C Hrs	A/C CRP	D Sort	D Hrs	D CRP
(200 LEVEL)	39	50.7	15	42	54.6	15
(300 LEVEL)	21	27.3	20	27	35.1	20
(400 LEVEL)	16	20.8	5	14	18.2	5
Totals	76	98.8	40	83	107.9	40

121. FLIGHT/SIMULATOR/EVENT TRAINING FOR REFRESHER PILOT AND WSO (FA-18A/C/D)

1. Purpose. To update training for pilots with a 7523 MOS and WSOs with a 7525 MOS who have not flown the FA-18 within the previous 365 days.

2. General. All flights will be conducted in daylight VMC until the pilot or WSO is night and instrument qualified in the FA-18.

a. FA-18 Tactical T&R Refresher

(1) The FA-18 Tactical T&R Refresher syllabus shall be completed in tactical squadrons. Aircrew should fly all R coded events. However, a Refresher need not fly every event within a stage to be re-qualified in that stage. The commanding officer may tailor the Refresher syllabus to fit the experience level of the Refresher per the Aviation T&R Program Manual. When all of the R coded events within a stage are successfully completed, all remaining events in that stage that are proficient or delinquent are updated and respective CRP credited. This assumes that the Refresher aircrew had completed all events in the stage during his previous tour. If the Refresher aircrew did not previously complete events in a stage of training, those events must be completed in addition to R coded events. Experienced aircrew (completed at least one fleet tour in an operational unit) who have not flown for an extended period of time, but not long enough to require FRS Refresher training, shall be assigned to the Refresher POI.

b. FA-18 FRS Refresher Syllabi

(1) Pilots who have not flown the FA-18 in **366 days or greater** but less than 485 days will complete a Safe-for-Solo (CAT V) program at a designated FRS training squadron.

(2) Aircrew who have not flown the FA-18 in **486 days or greater** but less than 730 days will complete a Modified FRS Refresher (CAT IV) program which consists of ground school, simulator training, 10 hours of flight time, and a NATOPS check in the FA-18. This training will be accomplished at a designated FRS training squadron.

(3) Aircrew who have not flown the FA-18 in **731 days or greater** will complete a comprehensive FRS Refresher syllabus (CAT III). Each phase of training in the 100 Level is represented to ensure a comprehensive FRS Refresher syllabus. Completion of appropriate ground, simulator, and FRS Refresher flight training will be accomplished at a designated FRS training squadron.

3. CRP Accounting. Aircrew completing any Refresher syllabi (Refresher, Modified Refresher, Safe-for-Solo) are considered 60 percent CRP.

4. 200 Level Training Stages (Includes Simulator Hours/Sorties)

	A/C Sort	A/C Hrs	D Sort	D Hrs
Air-Air Refueling	2	2.6	2	2.6
Threat Reaction	1	1.3	1	1.3
Low Altitude Tactics	3	3.6	3	3.6
Night Systems (High)	2	2.6	2	2.6
Basic Air-Surface	4	4.9	4	4.9
Basic Fighter Maneuvering	2	2.6	2	2.6
Air Combat Maneuvering	4	4.9	4	4.9
Close Air Support	1	1.3	1	1.3
Armed Reconnaissance	2	2.6	2	2.6
Air Interdiction	2	2.6	2	2.6
Tactical Aerial Recon	0	0	2	2.6
Totals	23	29	25	31.6

5. 300 Level Training Stages (Includes Simulator Hours/Sorties)

	A/C Sort	A/C Hrs	D Sort	D Hrs
Basic Air-Surface	3	3.3	3	3.3
Air Combat Maneuvering	3	3.6	3	3.6
Close Air Support	2	2.6	2	2.6
Armed Reconnaissance	2	2.6	2	2.6
Air Interdiction	1	1.3	1	1.3
Forward Air Controller (A)	*	0	3	3.9
Tactical Air Coordinator (A)	*	0	1	1.3
Totals	11	13.4	15	18.6

6. 400 Level Training Stages (Includes Simulator Hours/Sorties)

	A/C Sort	A/C Hrs	D Sort	D Hrs
Night Systems (Low)	1	1.3	1	1.3
Forward Air Controller (A)	2	2.6	*	*
Air Interdiction	1	1.3	1	1.3
Totals	4	5.2	1	1.3

130. GROUND/FLIGHT/SIMULATOR/EVENT PERFORMANCE REQUIREMENTS FOR 200 LEVEL, 300 LEVEL, 400 LEVEL (FA-18A/C/D)

1. General

a. Mission guidance is generalized to allow for local conditions and to allow this document to remain unclassified. Squadrons are encouraged to use the full range of tactics contained in tactical manuals, USMC FA-18 TACSOP, and to adopt the latest developed and proven tactics.

b. All flights shall terminate with a comprehensive debrief with emphasis on aircrew performance utilizing all evaluation techniques available (e.g., TACTS, VTR/CVRS, participating aircrews, and AIC personnel).

c. An ATF is required for any initial event completed by a Basic, Transition, Conversion of Refresher pilot, or as recommended by the squadron Standardization Board. Standardized ATFs can be downloaded from <http://www.tecom.usmc.mil/mawts1/catalog2.cfm> in Adobe Acrobat format.

d. The T&R manual is the Marine Corps aircrew training document. It relates the training requirements and standards for Marine aircrew. When operational commanders assign FA-18 squadrons to prolonged commitments where specific T&R training is not available (e.g., deployed aboard CV), it is expected that degradation in some mission areas will occur. Commanding officers are authorized and encouraged to employ the FA-18 in specific missions relating to their current situation and avoid those mission areas not relevant to their situation. It is not intended for squadrons to train to specific mission areas and avoid capabilities that the FA-18 is very capable of conducting, but are difficult to coordinate. This type of mission

specific training is granted only to squadron commanding officers deployed in austere conditions that prevent them from employing the T&R manual as written.

e. **The events within a stage should be flown in order.** Aircrew should not be scheduled to fly a higher stage syllabus event before flying the entire lower stage. For example, aircrew should not fly any 300 Level BAS event until all of the 200 Level BAS codes are flown. The commanding officer may waive this requirement based on aircrew experience and operational necessity but waivers should be avoided to the greatest extent possible.

f. In the event that ordnance or dissimilar adversary requirements are not available, the following 500 Level tracking codes shall be logged in addition to the syllabus event code:

(1) TRK-598: Required ordnance not available.

(2) TRK-599: Dissimilar adversary not available.

2. Simulators

a. Flight simulators will be utilized to the maximum extent possible. To enhance flight training and airborne proficiency, simulators shall be flown as a prerequisite for all stages of training that require a simulator event when squadrons are located near mission capable simulators. Where simulators are not available, commanders may authorize the simulator events to be waived or flown in the aircraft as required.

b. During 200, 300, and 400 Level training, simulators can be used to update SSWD sorties in the 500 Level when the mission has first been flown in the aircraft. For example, if an aircrew completes an SSWD 500 Level event in the aircraft and flies a simulator event within the appropriate reflly interval, the simulator will update the SSWD proficiency for that particular 500 Level tracking code.

3. CRP Accountability. Logging multiple training codes on a single sortie shall be avoided. Exceptions should be made for sorties during which multiple unique training events can be completely accomplished. For example, it is appropriate to log three separate training codes if, during the conduct of a sortie, the flight completes all of the specific event requirements for a syllabus event, conducts air-to-air refueling and completes all AR requirements, then completes a third syllabus event prior to landing. If multiple syllabus events are to be accomplished during a single flight evolution, appropriate planning, briefing, and debriefing time must be allotted to ensure that requisite training objectives can be met. Multiple codes shall also be logged for 500 and 600 Level tracking events.

4. Crew Resource Management (CRM). CRM shall be briefed for all flights and/or events.

5. Evaluated (E Coded) Sorties. E coded sorties are used to evaluate whether an aircrew has mastered the skills outlined for that particular stage. Aircrew returning to the fleet as a Refresher shall be evaluated on the E coded events in the Refresher syllabus. Evaluations shall be conducted by the flight lead and ATFs shall be placed in the Aircrew Performance Record. Standardized ATFs can be downloaded from <http://www.tecom.usmc.mil/mawts1/catalog2.cfm> in Adobe Acrobat format.

6. Mission Performance Standards (MPS). MPSs are listed for each T&R event description. These MPSs are training standards for individual aircrew

performance and should be utilized by the evaluator as a guideline to determine the satisfactory completion of each event. If the aircrew did not successfully attain the MPSSs, the training code shall not be logged as a completed flight and CRP credit shall not be granted until proficiency is demonstrated.

131. 200 LEVEL TRAINING (FA-18A/C/D)

1. Air-Air Refueling (AAR)

a. Purpose. To become proficient in aerial refueling operations.

b. General

(1) These sorties may be combined with other syllabus flights.

(2) Aerial refueling sorties should be flown IAW MCCRES Mission Performance Standards.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. None.

e. Flight Training. (2 Flights, 2.6 Hours).

AAR-200 1.3 R FA-18A/C/D A

Goal. Become proficient in day aerial refueling.

Requirement. Five contacts required for completion. If proficient, one contact required for completion.

Mission Performance Standards

- (a) Executes safe rendezvous procedures.
- (b) Uses proper communications procedures.
- (c) From a stabilized position, engages the basket expeditiously.
- (d) Responds quickly and safely to all communications and communications out signals from the tanker aircraft.

Prerequisite. None.

Ordinance. None.

External Syllabus Support. One tanker.

AAR-201 1.3 1 FA-18A/C/D A N (NS)

Goal. Become proficient in night aerial refueling.

Requirement. Five contacts required for completion. If proficient, one contact required for completion.

Mission Performance Standards

- (a) Executes safe rendezvous procedures.

(b) Uses proper communications procedures.

(c) From a stabilized position, successfully engages the basket expeditiously.

(d) Responds quickly and safely to all communications and communications out signals from the tanker aircraft.

Prerequisite. AAR-200.

Ordinance. None.

External Syllabus Support. One tanker.

2. Threat Reaction (TRXN)

a. Purpose. To develop proficiency in medium to high altitude Tactics, Techniques, and Procedures (TTPs) for survival in a surface-to-air threat environment. These TTPs will be utilized in subsequent phases of training where a surface-to-air threat exists.

b. General. The events in this stage of training are designed to be flown on an electronic warfare range with scorable threat flyout simulations. A TACTS range with simulated RWR and missile flyout may be substituted.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. (1 Period, 1.0 Hour).

STRXN-202 1.0 R WTT S

Goal. Practice medium and high altitude TTPs to survive in a surface-to-air threat environment. Emphasize correctly assessing the relative threat level and performing the appropriate preemptive or reactive maneuvers.

Requirement. Conduct a simulated two-ship air interdiction mission in a medium to high threat surface-to-air environment. Conduct preemptive and reactive maneuvers to defeat the simulated IADS. Consult current tactical publications for appropriate maneuvers.

e. Flight Training. (1 Flight, 1.3 Hours).

TRXN-203 1.3 2 FA-18A/C/D A (NS)

Goal. Practice medium and high altitude TTPs to survive in a surface-to-air threat environment. Emphasize correctly assessing the relative threat level and performing the appropriate preemptive or reactive maneuvers.

Requirement. Conduct a two-ship air interdiction mission in a medium to high threat surface-to-air environment. Conduct preemptive and reactive maneuvers to defeat the simulated IADS. Consult current tactical publications for appropriate maneuvers.

Mission Performance Standards

(a) Correctly assesses the threat based upon the briefed scenario and aircraft system cueing (i.e. ALR-67, etc.).

(b) Correctly performs briefed TTPs while maintaining situational awareness on position relative to flight.

(c) Able to survive the simulated threat and continue with mission.

Prerequisite. STRXN-202.

Ordinance. 4 BDU-45 (Mk-83 inert), 20 chaff, and 10 flares.

External Syllabus Support. EW/TACTS range with ground based simulators.

3. Low Altitude Tactics (LAT)

a. Purpose. To develop proficiency in FA-18 low altitude tactics.

b. General

(1) Emphasize LAT procedures, communications, and maneuver techniques. Upon completion of the LAT stage, aircrew should be able to perform low altitude navigation, tactical ingress into a heavily defended target at low altitude, and execute defensive maneuvers against surface-to-air or air-to-air threats.

(2) SLAT-204 is a prerequisite for the corresponding training flight when the sortie has not been previously flown or when the aircrew is returning to the fleet as a Transition or Refresher aircrew. Simulators are not prerequisites for sorties that are being reflown.

(3) Flights shall be flown on a published MTR or approved LAT course.

(4) LAT-205, 206, 207 and 208 require a LATI chase when the aircrew is not LAT qualified. LAT-208 requires a LATI chase when an aircrew loses proficiency.

(5) Currency and altitude restrictions as stated in the T&R Program Manual apply.

(6) Aircraft should be configured with an operable VTR/CVRS, ALQ-126B, ALR-67, CATM-9, KY-58, and chaff and flares.

(7) Upon completion of this stage, aircrew may be designated LAT qualified by their commanding officer.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. (1 Period, 1.0 Hour).

SLAT-204 1.0 R WTT S

Goal. Practice two dimensional and three dimensional LAT. Emphasize LAT procedures, communications, and maneuver techniques.

Requirement. Perform 50% dive recoveries, Nav/Hard/Break turns, speed rush baseline, MAC, vertical jinks, straight ahead oblique jinks, turning oblique jinks, and reverse oblique jinks.

e. Flight Training. (4 Flights, 5.2 Hours).

LAT-205 1.3 2 FA-18A/C/D A

Goal. Develop proficiency in single ship and section conventional LAT. Emphasize LAT procedures, communications, and maneuver techniques.

Requirement. As a single ship, perform descent to comfort level, straight and level, ridgeline crossings, speed rush base line, and Nav/Hard/Break turns. As a section, perform called and uncalled turns, ridgeline crossings, and execute a simulated target attack.

Mission Performance Standards

- (a) Performs maneuvers as briefed.
- (b) Remains above briefed minimum altitude.
- (c) Adheres to dive recovery rules.

Prerequisite. SLAT-204, TRXN-203.

Ordinance. 20 chaff/10 flares.

External Syllabus Support. None.

LAT-206 1.3 2 FA-18A/C/D A

Goal. Practice two dimensional and three dimensional LAT. Emphasize LAT procedures, communications, and maneuver techniques.

Requirement. Perform 50% dive recoveries, level turns, ridgeline crossings, MAC, Nav/Hard/Break turns, vertical jinks, straight ahead oblique jinks, turning oblique jinks, reverse oblique jinks, and a section target attack.

Mission Performance Standards

- (a) Performs maneuvers as briefed.
- (b) Adheres to dive recovery rules.
- (c) Remains above briefed minimum altitude.

Prerequisite. LAT-205.

Ordinance. 20 chaff/10 flares.

External Syllabus Support. None.

LAT-207 1.3 2 FA-18A/C/D A

Goal. Develop proficiency in single ship and section threat reaction drills and introduce low altitude intercepts. Emphasize LAT procedures, communications, and maneuver techniques.

Requirement. As a single ship, perform a level S, SAM break, guns jink, SAM weave, and a simulated target attack. Perform the same maneuvers as a section. Conduct low altitude

intercepts with the fighter at 300-500 ft AGL and the bogey at 600-1000 ft AGL. Two intercepts required for completion.

Mission Performance Standards

- (a) Knows 50% rule, 10 degree rule, dive recovery rules, small descent ROT, and mission cross-check times for straight and level and turning flight.
- (b) Uses standardized communication.
- (c) Able to fly maneuvers in accordance with LAT rules.
- (d) Quickly responds to commands from chase aircraft.
- (e) Adheres to LAT rules of conduct.

Prerequisite. LAT-206.

Ordinance. 20 chaff and 10 flares.

External Syllabus Support. None.

LAT-208

1.3 R E 2 FA-18A/C/D A

Goal. Practice all LAT maneuvers and evaluate LAT procedures, communications, and maneuver techniques.

Requirement. Perform 50% dive recoveries, level turns, ridgeline crossings, MAC, break turns, vertical jinks, straight ahead oblique jinks, turning oblique jinks, reverse oblique jinks, threat reaction drills, and a section target attack.

Mission Performance Standards

- (a) Knows 50% rule, 10 degree rule, dive recovery rules, small descent ROT, and mission cross-check times for straight and level and turning flight.
- (b) Uses standardized communication.
- (c) Able to fly maneuvers in accordance with LAT rules.
- (d) Quickly responds to commands from chase aircraft.
- (e) Adheres to LAT rules of conduct.

Prerequisite. LAT-207.

Ordinance. 20 chaff and 10 flares.

External Syllabus Support. None.

4. Night Systems (NS)

a. Purpose. To develop proficiency using Night Vision Devices (NVDs).

b. General

(1) A MAWTS-1 certified NSI is required to fly with non-NSQ HI aircrew for NS-210 through NS-214.

(2) Upon completion of NS-210 through NS-214 with a designated NSI, an aircrew may be designated NSQ HI.

(3) WSOs that have successfully completed the FRS Night Attack (NATK) syllabus are only required to fly NS-211 and NS-214. Upon successful

completion of NS-211 and NS-214 the WSO aircrew shall be given credit for attaining proficiency in the remaining events in the 200 level NS syllabus.

(4) At the discretion of the commanding officer, NSQ HI aircrew may fly any night or night optional event in the T&R with the aid of NVGs. NSQ HI aircrew are limited to a minimum altitude of 500 ft AGL for all night sorties during HLL conditions (lux of 0.0022 or greater). During LLL conditions, NSQ HI aircrews are limited to a minimum altitude of 1000 ft AGL. In any light level, no lower than local SOPs.

(5) Consult T&R Program Manual for applicable light level and currency restrictions for NS sorties.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. (1 Period, 1.0 Hour).

SNS-209 1.0 WTT S NS

Goal. Practice donning and removing NVDs, formation flight, radar intercepts, and high altitude ordnance delivery using NVDs.

Requirement. Perform formation flight and radar intercepts with the aid of NVDs. Perform medium and high altitude ordnance deliveries. Two radar intercepts and four ordnance deliveries using high and medium angle dives are required for completion.

e. Flight Training. (5 Flights, 6.5 Hours).

NS-210 1.3 R 2 FA-18A/C/D A NS

Goal. Introduce formation flying and intercept procedures with the aid of NVDs.

Requirement. Fly goggle tac wing formation enroute to the area. Practice goggle cruise/tac wing/spread/trail formations above 5,000 ft AGL. Introduce various combinations of light options and range cues. Perform four break up and rendezvous. Conduct one forward quarter radar intercept to an AIM-7 LAR and one stern intercept to an AIM-9 LAR.

Mission Performance Standards

- (a) Maintains sight of lead.
- (b) Conducts safe rendezvous.

Prerequisite. SNS-209.

Ordnance. CATM-9 and CATM-7/120.

External Syllabus Support. None.

NS-211 1.3 2 FA-18A/C/D vs 2 Adversaries A NS

Goal. Conduct section attacks against medium altitude, non-maneuvering forward quarter capable bogies using NVDs. Emphasize section intercept procedures using NVDs, maintaining proper formation, sorting, BVR weapons employment, and

standardized communications. Demonstrate the effect of expendables on NVGs.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. The bogies commence the intercept from 10,000-30,000 ft, any airspeed, non-maneuvering. Fighter weapons control status is tight with PID criteria set by flight lead according to theater of operation. Three runs required for completion. One intercept will be a night ICAO intercept and escort. Expendables should be used by the bogey and fighter on at least one run.

Mission Performance Standards

- (a) Maintains visual mutual support.
- (b) Conduct proper radar usage.

Prerequisite. NS-210.

Ordinance. CATM-9, 10 chaff, 5 flares, and CATM-7/120.

External Syllabus Support. Two adversaries.

NS-212

1.3 2 FA-18A/C/D A NS

Goal. Introduce high and medium angle dive deliveries utilizing NVDs.

Requirement. Conduct high and medium angle dive deliveries on a raked range using NVDs. Minimum recovery altitude should be 5,000 ft AGL. Six deliveries are required for completion.

Mission Performance Standards

- (a) Knows and understands visual illusions associated with NVD usage.
- (b) Adheres to briefed delivery parameters and TACSOP valid delivery criteria.
- (c) Achieves a CEP within the TACSOP valid bomb accuracy parameters.
- (d) Adheres to tactical abort parameters.

Prerequisite. NS-211.

Ordinance. 6 MK-76, 20 chaff.

External Syllabus Support. Raked range.

NS-213

1.3 2 FA-18A/C/D A NS

Goal. Introduce section high and medium angle target attacks.

Requirement. Conduct section high and medium angle dive deliveries on a raked range using NVDs. Minimum recovery altitude should be 5,000 ft. Six deliveries are required for completion.

Mission Performance Standards

- (a) Knows and understands visual illusions associated with NVD usage.
- (b) Adheres to briefed delivery parameters and TACSOP valid delivery criteria.
- (c) Achieves a CEP within the TACSOP valid bomb accuracy parameters.
- (d) Adheres to tactical abort parameters.
- (e) Maintains visual mutual support.

Prerequisite. NS-212.

Ordnance. 6 MK-76, 20 chaff, 10 flares.

External Syllabus Support. Raked range.

NS-214

1.3 E 2 FA-18A/C/D A NS

Goal. Introduce section low level to single ship low altitude pop deliveries.

Requirement. Conduct a section low level and single ship target attack using a low pop delivery maneuver. One low level and six ordnance deliveries on a raked range required for completion.

Mission Performance Standards

- (a) Knows and understands visual illusions associated with NVD usage.
- (b) Adheres to briefed delivery parameters and TACSOP valid delivery criteria.
- (c) Achieves a CEP within the TACSOP valid bomb accuracy parameters.
- (d) Adheres to tactical abort parameters.
- (e) Maintains visual mutual support.

Prerequisite. NS-213.

Ordnance. 6 MK-76, 20 chaff, 10 flares.

External Syllabus Support. Raked range.

5. Basic Air-to-Surface (BAS)

a. Purpose. To develop proficiency in basic air-to-surface ordnance delivery skills.

b. General

(1) Emphasize sensor target acquisition, designation techniques, delivery modes and attack parameters.

(2) BAS-222 through BAS-228E should be flown on a raked range with bomb impact scoring capability.

(3) Aircraft should be configured with an operable VTR/CVRS, ALQ-126B, ALR-67, targeting FLIR, LDT, CATM-9, KY-58, chaff, and flares.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. (1 Period, 1.0 hour)

SBAS-220 1.0 R WTT S

Goal. Practice guiding PGMs with the LTD/R, designating targets with the surface modes of the APG-65/73, and tracking laser energy with the LDT. Emphasize capabilities and limitations, cockpit displays, and employment techniques.

Requirement. Guide PGMs to impact using the LTD/R, four self lasing deliveries, four radar designations to LTD/R guidance, and four runs utilizing the LDT required for completion.

e. Flight Training. (8 Flights, 10.4 Hours).

BAS-221 1.3 2 FA-18A/C/D A (NS)

Goal. Develop aircrew proficiency in planning and executing a low altitude navigation mission using the F/A-18 navigation system. Emphasize accurate navigation, fuel management, timing, sensor usage, update techniques, and recognizing visual checkpoints.

Requirement. Fly a published MTR. Plan a high-low-high profile with fuel figures utilizing a mission planning system. Validate these planning figures during flight. Find three checkpoints with either the radar or FLIR, and identify three visual checkpoints along the route. Perform one sensor update during flight.

Mission Performance Standards. Overfly checkpoints within 15 seconds of planned time.

Prerequisite. None.

Ordnance. As required if combined with a BAS syllabus flight.

External Syllabus Support. Local MTR.

BAS-222 1.3 R 2+ FA-18A/C/D A N (NS)

Goal. Practice low, medium, and high angle visual ordnance delivery skills using INS and visual designations to computed delivery. Emphasize designation techniques, attack parameters and delivery on a raked range.

Requirement. Conduct low, medium, and high angle ordnance delivery on a raked range using Auto Slew and CCIP. Four runs low angle, four runs medium angle, and four runs high angle required for completion. Half of each type delivery will utilize INS designation prior to attack and half will use visual designations during attack.

Mission Performance Standards

(a) Adheres to briefed delivery parameters and TACSOP valid delivery criteria.

(b) Adheres to tactical abort parameters, when applicable.

(c) Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. BAS-221.

Ordinance. 12 MK-76, 20 chaff, and 10 flares.

External Syllabus Support. Raked range with target scoring.

BAS-223

1.3 2+ FA-18A/C/D A

Goal. Practice low and high angle pop up attacks using the computed delivery modes. Emphasize attack parameters, delivery modes, and designation techniques.

Requirement. Conduct low and high angle pop up attacks on a raked range using Auto Slew and CCIP. Minimum of three low angle pop attacks, three high angle pop attacks, and two strafe attacks are required for completion.

Mission Performance Standards

- (a) Adheres to briefed delivery parameters and TACSOP valid delivery criteria.
- (b) Adheres to tactical abort parameters, when applicable.
- (c) Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. BAS-222.

Ordinance. 6 BDU-48, 6 MK-76, 500 20mm, 20 chaff, and 10 flares.

External Syllabus Support. Raked range with target scoring.

BAS-224

1.3 2+ FA-18A/C/D A (NS)

Goal. Practice ordnance delivery using the TFLIR. Emphasize target acquisition and designation, attack parameters, and delivery.

Requirement. Conduct level and medium/high angle ordnance delivery using TFLIR for acquisition and designation. Three Auto or Scene Track attacks and three Nav stabilized attacks required for completion. If on a LASER safe range, use LTD/R for target ranging.

Mission Performance Standards

- (a) Able to acquire and designate targets using the TFLIR.
- (b) Adheres to briefed delivery parameters and TACSOP valid delivery criteria.
- (c) Adheres to tactical abort parameters, when applicable.
- (d) Able to maintain TFLIR designation on target until weapons impact.
- (e) Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. SBAS-220.

Ordnance. 6 MK-76 or 2 LGTR, 20 chaff, and 10 flares.

External Syllabus Support. Raked range with target scoring.

BAS-225

1.3 2+ FA-18A/C/D A (N) (NS)

Goal. Practice ordnance delivery using the LDT. Emphasize target acquisition and designation, attack parameters and delivery.

Requirement. Conduct low, medium or high angle ordnance delivery using LDT for acquisition and designation. Designation will be from an off-board sensor. Three Auto attacks and three CCIP attacks required for completion.

Mission Performance Standards

- (a) Adheres to briefed delivery parameters and TACSOP valid delivery criteria.
- (b) Adheres to tactical abort parameters, when applicable.
- (c) Proper comm brevity in accordance with J-LASER publication.
- (d) Acquire LASER spot on 75% of attempts.
- (e) Achieve a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. SBAS-220.

Ordnance. 6 MK-76 or 2 LGTR, 20 chaff, and 10 flares.

External Syllabus Support. LASER capable raked or tactical range. One laser designation platform.

BAS-226

1.3 R 2+ FA-18A/C/D A NS

Goal. At night, practice section ingress to medium and high angle visual ordnance delivery skills using INS designations to computed delivery modes. Emphasize visual mutual support, attack parameters and delivery modes.

Requirement. Conduct section ingress to medium and high angle ordnance delivery on a raked range using Auto Slew and CCIP. Four runs low angle, four runs medium angle, and four runs high angle required for completion.

Mission Performance Standards

- (a) Adheres to briefed delivery parameters and TACSOP valid delivery criteria.
- (b) Adheres to tactical abort parameters, when applicable.
- (c) Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. BAS-222.

Ordnance. 12 MK-76, 20 chaff, and 10 flares.

External Syllabus Support. Raked range with target scoring.

BAS-227

1.3 2+ FA-18A/C/D A NS

Goal. Practice night high altitude ordnance delivery using the TFLIR. Emphasize target acquisition and designation, attack parameters, and delivery.

Requirement. Conduct level and medium/high angle ordnance delivery using TFLIR for acquisition and designation. Three Auto or Scene Track attacks and three Nav stabilized attacks required for completion. If on a LASER safe range, use LTD/R for target ranging. Minimum recovery altitude no lower than 10,000 to 15,000 feet.

Mission Performance Standards

- (a) Able to acquire and designate targets using the TFLIR.
- (b) Adheres to briefed delivery parameters and TACSOP valid delivery criteria.
- (c) Adheres to tactical abort parameters, when applicable.
- (d) Able to maintain TFLIR designation on target until weapons impact plus 5 seconds for BHA.
- (e) Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. BAS-224.

Ordnance. 6 MK-76 or 2 LGTR, 20 chaff, and 10 flares.

External Syllabus Support. Raked or tactical range.

BAS-228

1.3 R E 2 FA-18A/C/D A (NS)

Goal. Practice section low and high angle pop up attacks on a raked range. Emphasize attack parameters, delivery modes, designation techniques, frag avoidance timing, and deconfliction.

Requirement. Conduct section low and high angle pop up attacks on a raked range. Two section low angle pop up attacks, two lead low pop/wing high pop attacks, one section Hornet high attack, one section Hornet cool pop, and two strafe attacks are required for completion.

Mission Performance Standards

- (a) Able to achieve a CEP within the TACSOP valid bomb accuracy parameters.
- (b) Adheres to tactical abort parameters.
- (c) Maintains mutual support throughout attack.

Prerequisite. AS-223.

Ordnance. 12 MK-76, 500 20mm, 10 chaff, and 10 flares.

External Syllabus Support. Raked range with target scoring.

6. Basic Fighter Maneuvering (BFM)

a. Purpose

(1) To increase aircrew proficiency in employing the FA-18 in BFM.

(2) Knowledge of air-to-air aircraft systems and performance characteristics should be emphasized throughout this phase. Employment envelopes and shot validity for air-to-air weapons will be stressed on every mission.

b. General

(1) BFM-230 through BFM-236 require an ACTI flight lead in the flight when any participating aircrew is not ACM qualified. For FA-18D aircrew, a non-ACM qualified pilot requires an ACTI WSO in the aircraft and an ACTI pilot flight lead. A non-ACM qualified WSO requires an ACTI pilot in the aircraft. If all participating aircrew are ACM qualified there is no requirement for an ACTI in the flight.

(2) After successful completion of the BFM and the ACM stages and successfully completing the ACM-245 evaluation sortie, the aircrew is eligible to be ACM qualified by the commanding officer.

(3) Aircraft should be configured with an operable VTR/CVRS, ALR-67, CATM-9 and chaff and flares.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. None.

e. Flight Training. (7 Flights, 9.1 Hours).

BFM-230 1.3 R 2 FA-18A/C/D A

Goal. Practice guns Snap-Shot-Drill (SSD) and maneuvering the FA-18 in the slow speed high AOA regime. Emphasize energy management and assessment, deck awareness, maintaining sight, expendable usage, and weapons employment recognition.

Requirement. One SSD, two flat scissors, and two rolling scissors.

Mission Performance Standards

(a) Manages FA-18 energy to maximize performance of the aircraft.

(b) Recognizes WEZs and employs the appropriate weapons.

(c) Takes valid shots.

Prerequisite. None.

Ordinance. CATM-9, 5 chaff, 10 flares.

External Syllabus Support. None.

BFM-231

1.3 2 FA-18A/C/D A

Goal. Practice the SSD and the mechanics of offensive BFM. Emphasize energy management and assessment, turn circle theory, deck awareness and weapons employment recognition.

Requirement. One SSD, three offensive perch setups and 1 guns defense (executed from an offensive start) required. Offensive perch setups will be conducted with 3000 ft, 6000 ft, and 9000 ft separation between aircraft. The guns defense start is at the discretion of the flight lead.

Mission Performance Standards

- (a) Maintains offensive position and achieves a valid follow-on shot.
- (b) Recognizes WEZs and employs appropriate weapons.
- (c) Takes valid shots.

Prerequisite. BFM-230.

Ordnance. CATM-9, 5 chaff, 10 flares.

External Syllabus Support. None.

BFM-232

1.3 2 FA-18A/C/D A

Goal. Practice the SSD and the mechanics of defensive BFM. Emphasize energy management and assessment, turn circle theory, deck awareness and weapons employment recognition.

Requirement. One SSD, three defensive perch setups and 1 guns defense required. Defensive perch setups will be conducted with 3000 ft, 6000 ft, and 9000 ft separation between aircraft. The guns defense start is at the discretion of the flight lead.

Mission Performance Standards

- (a) Manages FA-18 energy to deny valid follow-on shot by offensive aircraft.
- (b) Recognizes bandit WEZ and conducts appropriate defense.
- (c) Executes timely expendable usage (defeats IR MSLs).

Prerequisite. BFM-231.

Ordnance. CATM-9, 5 chaff, 10 flares.

External Syllabus Support. None.

BFM-233

1.3 R 2 FA-18A/C/D A

Goal. Practice SSD, FQMD and BFM against a Cat IV adversary. Emphasize energy management and assessment, game plans, offensive and defensive transition recognition, weapons employment, deck awareness and expendable usage.

Requirement. One SSD, two neutral engagements from a known start, and two FQMDs to engagements. The altitude for known

start engagements should be varied to demonstrate the impact of altitude on fighter performance and game plan.

Mission Performance Standards

- (a) Valid FQMD to defeat SAR-1 missile and follow-on IR-3 missile.
- (b) Execute valid game plan.
- (c) Takes valid shots.

Prerequisite. BFM-232.

Ordnance. CATM-9, 5 chaff, 10 flares.

External Syllabus Support. None.

BFM-234

1.3 1 FA-18A/C/D vs 1 Dissimilar Adversary A

Goal. Evaluate BFM skills versus a dissimilar adversary.

Requirement. Three engagements required for completion.

Mission Performance Standards

- (a) Executes appropriate game plan for type adversary.
- (b) Takes valid shots.

Prerequisite. BFM-233.

Ordnance. CATM-9, 10 chaff, 20 flares.

External Syllabus Support. One dissimilar adversary. If FA-18 aircrew is not ACM qualified the adversary must be instructor qualified.

BFM-235

1.3 2 FA-18A/C/D vs 1 Adversary A

Goal. Practice section maneuvering against a single CAT IV adversary with SAR-1 and IR-3 missiles. Emphasize mutual support, engaged communications, expendable usage, and minimizing time to kill.

Requirement. One engagement from a neutral start and two engagements from a defensive start are required for completion.

Mission Performance Standards

- (a) Section able to survive and achieve valid shot.
- (b) Utilizes coordinated section engaged maneuvering.
- (c) Utilizes proper communications brevity.
- (d) Maintains tally.

Prerequisite. BFM-234.

Ordnance. CATM-9, 10 chaff, 20 flares.

External Syllabus Support. One adversary.

BFM-236

1.3

R 2 FA-18A/C/D vs 2 Dissimilar Adversaries A

Goal. Practice section maneuvering against dissimilar adversaries armed with IR-3 missiles from offensive, neutral, and defensive starts.

Requirement. One forward quarter intercept to an engagement, one beam entry (by fighters) to an engagement, and one beam entry (by adversaries) to an engagement are required for completion. No kills should occur prior to the first merge.

Mission Performance Standards

- (a) Performs visual sort.
- (b) Utilizes coordinated section engaged maneuvering to defeat the adversaries.
- (c) Employs proper communications brevity.
- (d) Takes valid shots.
- (e) Maintain tally.

Prerequisite. BFM-235.

Ordnance. CATM-9, 10 chaff, 20 flares.

External Syllabus Support. Two dissimilar adversaries.

7. Air Combat Maneuvering (ACM)

a. Purpose

(1) To increase aircrew proficiency in employing the FA-18 in the BVR to WVR air-to-air arena.

(2) Knowledge of air-to-air weapons and tactics employment should be emphasized throughout this phase. Mission objectives, timeline awareness, mutual support, sensor usage, standardized communication, weapons employment, AIC integration, short-range radar mechanics, defensive reaction and targeting and flow decisions will be stressed on every mission.

(3) AIC and Data Link should be utilized to the maximum extent possible. If co-located with AIC controllers, a face-to-face brief and debrief should be conducted for all engagements that begin from beyond visual range.

(4) The TACTS range shall be utilized to the maximum extent possible. If units are not co-located with an appropriate TACTS facility, every effort should be made to ensure aircrew have the ability to fly on and debrief in a TACTS facility prior to gaining their ACM qualification.

b. General

(1) ACM-242 is not considered ACM by the definitions in OPNAVINST 3710.7 or T&R Program Manual and, therefore, does not require an ACTI for non-ACM qualified aircrew. However, aircrew are limited to a maximum of 180 degrees of turn at the merge. If ACM-242 is flown with the intent of conducting ACM, then these ACTI requirements do apply.

(2) ACM-243 through ACM-245E are considered ACM by the definitions in OPNAVINST 3710.7 and T&R Program Manual. These sorties require an ACTI in the flight when any participating aircrew is not ACM qualified. For FA-18D

aircrew, a non-ACM qualified pilot requires an ACTI WSO in the aircraft and an ACTI pilot flight lead. A non-ACM qualified WSO requires an ACTI pilot in the aircraft.

(3) After successful completion of the BFM and the ACM stages and successfully completing the ACM-245 evaluation sortie, the aircrew is eligible to be ACM qualified by the commanding officer.

(4) Aircraft should be configured with an operable VTR/CVRS, ALQ-126B, ALR-67, CATM-9, CATM-7/120, KY-58, and chaff and flares.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. (2 Periods, 2.0 Hours).

SACM-240 1.0 WTT/TOFT S

Goal. Conduct radar attacks against an unknown number of bandits with SAR-1 missiles. Emphasize section intercept procedures, sorting, RWR tactics, weapons employment, and standardized communications.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. The bogies commence the intercept at any altitude and airspeed, maneuvering. Fighter weapons control status is tight with PID criteria set by flight lead according to theater of operation. On this sortie, PID criteria will be satisfied in time to allow BVR weapons employment. Four intercepts required for completion.

Mission Performance Standards

- (a) Arrives at a valid forward quarter or rear quarter weapons envelope.
- (b) Takes valid shots.
- (c) Appropriate defensive reactions

Prerequisite. None.

SACM-241 1.0 R WTT/TOFT S

Goal. Conduct the appropriate radar mechanics against maneuvering targets post meld/pre-shot, and post shot. Conduct appropriate short-range radar mechanics post notch and post merge.

Requirement. Complete a minimum of 7 radar mechanics runs to include the following:

- (a) 2 post meld pre-shot target maneuvers.
- (b) 2 post shot target maneuvers.
- (c) 2 post notch and in to the merge short-range radar mechanics.
- (d) 1 complete intercept requiring a combination of the above skills.

Mission Performance Standards

- (a) Complete the correct maneuvering targets radar mechanics IAW the USMC FA-18 TACSOP.
- (b) Complete the correct Short-Range Radar (SRR) mechanics IAW the USMC FA-18 TACSOP.

Prerequisite. SACM-240.

e. Flight Training. (4 Flights, 5.2 Hours).

ACM-242 1.3 2 FA-18A/C/D A (NS)

Goal. Conduct radar attacks against a single bandit armed with SAR-1 missiles.

Requirement. With a minimum of 40 NM separation, the fighter commences the intercept at 15,000 ft. The bandit will commence one intercept from 10,000-25,000 ft, one intercept from 30,000-40,000 ft, and one intercept from 1000-5000 ft, any airspeed, maneuvering (+ 45 degrees). Three forward quarter intercepts and one stern intercept required for completion.

Mission Performance Standards

- (a) Arrives at a valid forward quarter or rear quarter weapons envelope.
- (b) Takes valid shots.

Prerequisite. SACM-240, 241.

Ordinance. CATM-9 and CATM-7/120.

External Syllabus Support. None.

ACM_243 1.3 R 2 FA-18A/C/D vs 2 Adversaries A

Goal. Practice section VID intercepts versus a section of non-maneuvering/maneuvering bandits armed with SAR-1 missiles. Focus on radar mechanics, formation, communications, tactical timeline employment, and VID intercept mechanics.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at 15,000 ft. Fighter weapons control status is tight with a PHID criteria that prevents weapons employment until a VID. Bandits weapons control status is unknown. Bandits will commence intercepts from between 1,000 ft and 40,000 ft and are cleared to maneuver. Bandits will maintain sortable formations throughout the intercepts and all bandit tactics will be complete NLT 15 NM prior to the merge. Three intercepts required for completion.

Mission Performance Standards

- (a) Achieve radar sort.
- (b) Maintains mutual support.
- (c) Achieves valid shot at the merge.

Prerequisite. ACM-242.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two adversaries.

ACM-244

1.3 R 2 FA-18A/C/D vs 2 Dissimilar Adversaries A (NS)

Goal. Conduct section attacks against 2 dissimilar adversaries with SAR-1 and IR-3 missiles. Emphasize section intercept procedures, maintaining proper formation, targeting, sorting, weapons employment and standardized communications.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. The maneuvering bogies commence the intercept at any altitude and airspeed,. Bogey presentations will be level 2 or level 3 IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with

PHID criteria. One run with PHID criteria not met until inside 15NM. Three intercepts required for completion.

Mission Performance Standards

- (a) Maintains mutual support.
- (b) Executes proper radar mechanics.
- (c) Targets as directed.
- (d) Recognizes threat tactics.
- (e) Takes valid shots.
- (f) Timeline awareness.

Prerequisite. ACM-243.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two dissimilar adversaries.

ACM-245

1.3 E 4 FA-18A/C/D vs Unknown Adversaries A (NS)

Goal. Conduct a division OCA mission against four adversaries with SAR-1 and IR-3 missiles. Emphasize division intercept procedures, maintaining proper formation, targeting and sorting, BVR weapons employment, and standardized communications.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. Bandits commence the intercept at any altitude and airspeed, maneuvering. Bandits present a level 2 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight, with PHID criteria set by flight lead according to theater of operation. Three intercepts required for completion.

Mission Performance Standards

- (a) Maintains mutual support.
- (b) Executes proper radar mechanics.
- (c) Targets as directed.
- (d) Recognizes threat tactics.
- (e) Takes valid shots.
- (f) Timeline awareness.

Prerequisite. ACM-244.

Ordnance. CATM-9, 20 chaff, 10 flares, CATM-7/120.

External Syllabus Support. Minimum of 3 adversaries.

8. Close Air Support (CAS)

a. Purpose. To develop proficiency in delivering ordnance on a CAS mission.

b. General

(1) Emphasize mission planning, aircraft system management, attack parameters, delivery modes, designation techniques, information flow through the C³ system, and adherence to CAS procedures and all FAC or FAC(A) instructions.

(2) The commanding officer may authorize heavy inert ordnance in lieu of live ordnance when necessary. Ensure required ordnance not available (TRK-598) code is logged.

(3) Aircraft should be configured with operable VTR/CVRS, ALQ-126B, ALR-67, CATM-9, targeting FLIR, LDT, KY-58, and chaff and flares when possible.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. None.

e. Flight Training. (3 Flights, 3.9 Hours).

CAS-250 1.3 2 FA-18A/C/D A

Goal. Conduct day low threat CAS under FAC or FAC(A) control. Emphasize mission planning, aircraft system management, attack parameters, delivery modes, designation techniques, information flow through the C³ system, and adherence to CAS procedures and all FAC or FAC(A) instructions.

Requirement. Conduct day low threat CAS under FAC or FAC(A) control. Two deliveries using talk-on and two deliveries using either a visual or laser mark required for completion.

Mission Performance Standards

- (a) Accurately copies CAS brief from terminal controller.
- (b) Delivers weapons with effect on target within 15 seconds of TOT.
- (c) Delivers weapons only when cleared by the terminal controller.
- (d) Makes an accurate correction from mark or lead's hit.
- (e) Adheres to tactical abort parameters, when applicable.

Prerequisite. BAS-222.

Ordnance. 4 MK-82, 250 rds of 20 mm, 10 chaff, and 20 flares.

External Syllabus Support. FAC or FAC(A), 2 WP/RP/ILLUM/Smoke rds or laser designation platform. Live ordnance range.

CAS- 251 1.3 R 2 F/A-18A/C/D A

Goal. Conduct day medium/high threat CAS under FAC or FAC(A) control and evaluate CAS procedures. Emphasize mission planning, aircraft system management, attack parameters, delivery modes, designation techniques, information flow through the C³ system, and adherence to CAS procedures and all FAC or FAC(A) instructions.

Requirement. Conduct day medium/high threat CAS under FAC or FAC(A) control. Two deliveries using either a visual or laser mark required for completion.

Mission Performance Standards

- (a) Accurately copies CAS brief from terminal controller.
- (b) Delivers weapons with effect on target within 15 seconds of TOT.
- (c) Delivers weapons only when cleared by the terminal controller.
- (d) Makes an accurate correction from mark or lead's hit.
- (e) Adheres to tactical abort parameters, when applicable.

Prerequisite. CAS-250, BAS-228.

Ordinance. 4 MK-82, 250 rds of 20 mm, 10 chaff, and 20 flares.

External Syllabus Support. FAC or FAC(A), 8 HE rds, 2 WP/RP/ILLUM/smoke rds or laser designation platform. Live ordnance range.

CAS-252 1.3 R 2 FA-18A/C/D A NS

Goal. Conduct night low threat CAS under FAC or FAC(A) control. Emphasize mission planning, aircraft system management, attack parameters, delivery modes, designation techniques, information flow through the C³ system, and adherence to CAS procedures and all FAC or FAC(A) instructions.

Requirement. Conduct night low threat CAS under FAC or FAC(A) control. Two deliveries using talk-on and two deliveries using either a visual or laser mark required for completion.

Mission Performance Standards

- (a) Accurately copies CAS brief from terminal controller.
- (b) Delivers weapons with effect on target within 15 seconds of TOT.
- (c) Delivers weapons only when cleared by the terminal controller.
- (d) Makes an accurate correction from mark or lead's hit.
- (e) Adheres to tactical abort parameters, when applicable.

Prerequisite. BAS-226, CAS-250.

Ordinance. 4 MK-82, 250 rds of 20 mm, 10 chaff, and 20 flares.

External Syllabus Support. FAC or FAC(A), 2 WP/RP/ILLUM/Smoke rds or laser designation platform. Live ordnance range.

9. Armed Reconnaissance (AR)

a. Purpose. To develop proficiency in conducting AR missions.

b. General

(1) Emphasize mission planning, mutual support, target acquisition/recognition/identification, target area tactics and information flow through the C³ system.

(2) The commanding officer may authorize inert ordnance in lieu of live ordnance when necessary. Ensure required ordnance not available (TRK-598) code is logged.

(3) Binoculars may be utilized for target acquisition during AR missions.

(4) Aircraft should be configured with an operable VTR/CVRS, ALQ-126B, ALR-67, CATM-9, targeting FLIR, LDT, KY-58, chaff, and flares when possible.

c. Academic Training. Refer to MAWTS-1 Course Catalog

d. Simulator Training. (1 period, 1.0 hour).

SAR-260 1.0 WTT S

Goal. Practice employment of the AGM-65E/F Maverick. Emphasize capabilities and limitations, cockpit displays, and employment techniques.

Requirement. Employ the AGM-65E/F against a surface target. Three launches with a ground based laser and three launches with an onboard laser required for completion.

Prerequisite. AGM-65E/F Maverick lecture from the MAWTS-1 ASP.

e. Flight Training. (2 Flights, 2.6 Hours).

AR-261 1.3 R 2 FA-18A/C/D A

Goal. Conduct day med/high altitude AR. Emphasize mission planning, target precedence, search pattern, attack parameters, delivery modes, designation techniques, and information flow through the C³ system.

Requirement. Conduct med/high altitude AR to locate, plot, and destroy targets of opportunity.

Mission Performance Standards

(a) Able to conduct visual reconnaissance of assigned area and detect targets.

(b) Able to plot targets with an error less than 300 meters.

(a) Performs target attacks appropriate for scenario.

(b) Delivers weapons with effects on target.

(c) Adheres to TACSOP valid delivery parameters.

Prerequisite. SAR-260.

Ordnance. 1 Laser or IR Maverick (live or captive), 4 MK-20 or CBU-99/100, 10 chaff and 20 flares.

External Syllabus Support. Live ordnance range (CBUs authorized).

AR-262

1.3 2 FA-18A/C/D A (NS)

Goal. Conduct night high/med altitude AR. Emphasize mission planning, target precedence, search pattern, attack parameters, delivery modes, designation techniques, and information flow through the C³ system.

Requirement. Conduct high/med altitude AR to locate, plot, and destroy targets of opportunity.

Mission Performance Standards

- (a) Able to conduct visual reconnaissance of assigned area and detect targets.
- (b) Able to plot targets with an error less than 300 meters.
- (c) Performs target attacks appropriate for scenario.
- (d) Deliver weapons with effects on target.
- (e) Adheres to TACSOP valid delivery parameters.

Prerequisite. AR-261.

Ordnance. 1 Maverick (live or captive), 4 MK-82, 10 chaff and 20 flares.

External Syllabus Support. Live ordnance range.

10. Air Interdiction (AI)

a. Purpose. To develop proficiency in conducting AI missions.

b. General

(1) Emphasize mission planning, tactical decision making, mutual support and target acquisition/destruction. Ordnance types may be substituted based on the mission, threat and to vary tactics and training requirements.

(2) The commanding officer may authorize inert ordnance in lieu of live ordnance when necessary. Ensure required ordnance not available (TRK-598) code is logged.

(3) Aircraft should be configured with operable VTR/CVRS, ALQ-126B, ALR-67, CATM-9, targeting FLIR, LDT, KY-58, chaff, and flares when possible.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. None.

e. Flight Training. (3 Flights, 3.9 Hours).

AI-270

1.3 R 2 FA-18A/C/D A 1+ Adversaries

Goal. Conduct a day AI mission against a target with air defenses. Emphasize mission planning, tactical decision making, mutual support and target acquisition/destruction.

Requirement. Attack and destroy a surface target. Plan a strike route using a mission planning system. Use JMEMs to weaponeer a specific target. Perform an INS update using the radar or FLIR. Execute ingress, ordnance delivery and egress tactics consistent with the threat.

Mission Performance Standards

- (a) Maintains briefed tactical formations on ingress/egress.
 - (b) Recognizes and reacts appropriately to threats.
 - (c) Delivers weapons on planned DMPI.
 - (d) Adheres to TACSOP valid delivery parameters.
- Prerequisite. BAS-222.

Ordnance. 4 MK-83, 20 chaff, and 10 flares.

External Syllabus Support. Live ordnance range.

AI-271

1.3 2 FA-18A/C/D A NS

Goal. Conduct a night AI mission against a target with air defenses. Emphasize mission planning, tactical decision making, mutual support and target acquisition/destruction.

Requirement. Attack and destroy a surface target. Plan a strike route using a mission planning system. Use JMEMs to weaponeer a specific target. Perform an INS update using the radar or FLIR. Execute ingress, ordnance delivery and egress tactics consistent with the threat.

Mission Performance Standards

- (a) Maintains briefed tactical formations on ingress/egress.
- (b) Recognizes and reacts appropriately to threats.
- (c) Delivers weapons on planned DMPI.
- (d) Adheres to TACSOP valid delivery parameters.

Prerequisite. BAS-226, AI-270.

Ordnance. 4 MK-83, 20 chaff, and 10 flares.

External Syllabus Support. One tanker (if AAR required).

AI-272

1.3 4 FA-18A/C/D A

Goal. Conduct a division day AI mission against a target with air defenses. Emphasize mission planning, tactical decision making, mutual support and target acquisition/destruction.

Requirement. Attack and destroy a surface target in a division attack formation. Plan a strike route using a mission planning system. Use JMEMs to weaponeer a specific target. Perform an INS update using the radar or FLIR.

Execute ingress, ordnance delivery and egress tactics consistent with the threat.

Mission Performance Standards

- (a) Maintains briefed tactical formations on ingress/egress.
- (b) Recognizes and reacts appropriately to threats.
- (c) Delivers weapons on planned DMPI.
- (d) Adheres to TACSOP valid delivery parameters.

Prerequisite. AI-271.

Ordnance. 2 LGTR, 20 chaff, and 10 flares.

External Syllabus Support. Live ordnance range, one tanker (if AAR required).

11. Tactical Aerial Reconnaissance (TAR)

a. Purpose. Develop proficiency at multi-sensor imagery reconnaissance with the Advanced Tactical Airborne Reconnaissance System (ATARS).

b. General

(1) Emphasize integrated mission planning, search profiles, sensor employment, and information flow through the C3 system. Both pre-planned collection and targets of opportunity techniques will be executed.

(2) After completion of this phase, aircrew may be designated TAR qualified by their commanding officer.

(3) ATARS aircraft must be configured with two operable Digital Tape Recorders, ATARS sensors, and APG-73 RUG 2. TAR-282 also requires an AN/ARQ-56 Data Link Pod and coordination with a Marine Tactical Exploitation Group (TEG) or similarly equipped ground imagery exploitation system.

(4) Aircraft should also be configured with operable CVRS, ALQ-126B, ALR-67, chaff, flares, KY-58, and CATM-9 when possible.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. None.

e. Flight Training. (3 Flights, 3.9 Hours).

TAR-280 1.3 R 2 FA-18D(RC) A (NS)

Goal. Introduce Electro-optical (EO) and Infrared (IR) imagery collection using the Advanced Tactical Airborne Reconnaissance System (ATARS). Emphasize mission planning, target acquisition, and employment of EO and IR sensors while executing a day AR mission.

Requirement. Conduct high and low altitude AR as a section to detect and collect EO/IR imagery of both pre-planned targets and targets of opportunity.

Mission Performance Standards

- (a) Conduct AR of named areas of interest and detect targets.
- (b) Collect preplanned imagery using all EO and IR sensors. A minimum of one vertical, one high oblique, and one low oblique EO image will be collected. Complementary IR imagery will be collected simultaneously when applicable.
- (c) Collect imagery of targets of opportunity with all EO and IR sensors.
- (d) Execute target attacks and collect post-strike imagery for BDA.

Prerequisites. AR-261.

Ordinance. 6 Mk-76, 10 chaff, 10 flares.

External Syllabus Support. None.

TAR-281

1.3 2 FA-18D(RC) A NS

Goal. Introduce Synthetic Aperture Radar (SAR) imagery collection while employing ATARS. Emphasize mission planning, target acquisition, and employment of both SAR and the Infrared Line Scanner (IRLS) in a night AR mission.

Requirement. Conduct night AR as a section to locate targets and collect both SAR and IR imagery of pre-planned targets and targets of opportunity.

Mission Performance Standards

- (a) Conduct AR of named areas of interest and detect targets.
- (b) Collect pre-planned imagery using both SAR and IRLS. A minimum of two SAR strip maps and two SAR spot maps are required. Complementary IR imagery will be collected of the same targets.
- (c) Collect imagery of targets of opportunity using both SAR and IRLS.
- (d) Perform target attacks and collect post-strike imagery for BDA.

Prerequisites. AR-262, TAR-281.

Ordinance. 6 Mk-76, 10 chaff, 10 flares.

External Syllabus Support. None.

TAR-282

1.3 2 FA-18D(RC) A

Goal. Introduce employment of the AN/ARQ-56 ATARS Datalink Pod. Emphasize mission planning, sensor employment, and datalink of time-critical imagery while executing a medium threat AI mission.

Requirement. Execute a medium threat AI mission, collect pre-planned targets and targets of opportunity, and datalink time-critical imagery to the TEG.

Mission Performance Standards

- (a) Collect preplanned imagery enroute using EO, IR, and SAR sensors.
- (b) Collect pre-strike and post-strike imagery of assigned DMPs.
- (c) Conduct imagery review inflight and datalink time-sensitive imagery to the TEG.

Prerequisites. TAR-280, 281.

Ordnance. 6 Mk-76 or LGTR, 10 chaff, 10 flares.

External Syllabus Support. TEG or similarly equipped ground imagery exploitation system required.

132. 300 LEVEL TRAINING (FA-18A/C/D)

1. Basic Air-to-Surface (BAS)

a. Purpose. To develop proficiency in BAS ordnance delivery skills.

b. General

(1) Emphasize sensor target acquisition, designation techniques, delivery modes and attack parameters.

(2) Aircraft should be configured with operable VTR/CVRS, ALQ-126B, ALR-67, targeting FLIR, LDT, CATM-9, KY-58, chaff, and flares.

c. Academic Training. Refer to MAWTS-1 Course Catalog

d. Simulator Training. (2 Periods, 2.0 Hours).

SBAS-320 1.0 R WTT S

Goal. Practice employment of JDAM and JSOW. Emphasize weapon capabilities and limitations, cockpit displays, and employment techniques.

Requirement. Plan and conduct multiple ordnance deliveries. Minimum of three PP and three TOO deliveries for each weapon.

SBAS-321 1.0 R WTT S

Goal. Practice employment of the AGM-88 HARM. Emphasize weapon capabilities and limitations, cockpit displays, and employment techniques.

Requirement. Employ the AGM-88 against a ground based emitter. Three PB shots, three TOO shots, a HARM designation, and a Manually Modified Entry (MME) required for completion.

Prerequisite. HARM Modes of Operation and Displays lecture from the MAWTS-1 ASP.

e. Flight Training. (4 Flights, 5.2 Hours).

BAS-322

1.3 R 2 FA-18A/C/D A (NS)

Goal. Practice section "buddy lase" and "buddy bomb" ordnance deliveries. Emphasize mutual support and target area tactics.

Requirement. Conduct ordnance deliveries using a targeting FLIR and LDT. Conduct three target attacks utilizing "buddy lase" tactics and three target attacks utilizing "buddy bombing" tactics for completion.

Mission Performance Standards

- (a) Able to acquire/illuminate target on sensor.
- (b) Able to maintain proper geometry for target illumination until weapons impact.
- (c) Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. SBAS-220, BAS-224, 225.

Ordnance. 2 LGTR (6 MK-76), 20 chaff, and 10 flares.

External Syllabus Support. LASER capable range.

BAS-323

1.3 2 FA-18A/C/D A (NS)

Goal. Practice level and low angle low drag ordnance delivery and strafe using the FA-18 computed delivery modes. Emphasize target area tactics and attack parameters.

Requirement. Conduct level and low angle low drag ordnance delivery and strafe on a raked range using Auto Slew and CCIP. Six runs level, six runs low angle low drag, and four runs low angle strafe required for completion.

Mission Performance Standards

- (a) Able to perform safe separation maneuvers and achieve suitable stand-off for frag avoidance.
- (b) Achieves a CEP within the TACSOP valid bomb accuracy parameters.
- (c) A minimum of 10% hits for strafe.

Prerequisite. LAT qualified.

Ordnance. 12 MK-76, 250 rds of 20 mm, 10 chaff, and 20 flares.

External Syllabus Support. Raked range with target scoring.

BAS-324

1.3 2+ FA-18A/C/D A (NS)

Goal. Practice ordnance delivery using a radar designation. Emphasize target acquisition and target area tactics.

Requirement. Conduct ordnance delivery using radar expand modes. Three attacks utilizing the OAP method for target acquisition/designation. Six runs required for completion.

Mission Performance Standards

- (a) Able to locate target/OAP using APG-65/73 air-to-ground modes.
- (b) Achieves a CEP within the TACSOP valid bomb accuracy parameters.

Prerequisite. None.

Ordnance. 6 MK-76, 10 chaff, and 20 flares.

External Syllabus Support. Air-to-ground range.

BAS-325

1.3 FA-18A/C/D A (NS)

Goal. Conduct FAC(A)/SCAR escort. Emphasize detection and suppression of surface-to-air and air-to-air threats and mutual support.

Requirement. Fly as a FAC(A)/SCAR escort and suppress any detected threats.

Mission Performance Standards

- (a) Detect surface-to-air and air-to-air threats.
- (b) Suppress/destroy surface-to-air and air-to-air threats.

Prerequisite. None.

Ordnance. CATM-9, captive HARM, 2 MK-82, 10 chaff, 20 flares, and CATM-7/120.

External Syllabus Support. Ground based emitter and/or 1 adversary.

2. Air Combat Maneuvering (ACM)

a. Purpose. To refine skills developed in the 200 Level ACM stage.

b. General

(1) All general notes from the 200 Level ACM stage apply to this stage.

(2) Events in this stage do not require an ACTI unless a non-ACM qualified aircrew participates. If a non-ACM qualified aircrew participates in an event in this stage, the ACTI requirements contained in the T&R Program Manual and 200 Level ACM stage descriptions apply.

(3) Aircraft should be configured with operable VTR/CVRS, ALQ-126B, ALR-67, CATM-9, KY-58, and chaff and flares when possible.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. (2 Periods, 2.0 Hours).

SACM-330

1.0 WTT/TOFT S

Goal. Conduct section attacks against an unknown number of bogies with SAR-1 missiles. Emphasize section intercept

procedures, maintaining proper formation, targeting and sorting, BVR weapons employment, and standardized communications.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. The bogies commence the intercept at any altitude and airspeed, maneuvering. Bogey presentations will be a level 3 simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. Four intercepts required for completion.

Mission Performance Standards

- (a) Arrives at a valid forward quarter or rear quarter weapons envelope.
- (b) Takes valid shots.

Prerequisite. ACM-245.

SACM-331

1.0 R WTT/TOFT S

Goal. Conduct intercept against bogies with SAR-1 and IR-3 missiles in an EA environment.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. The bogies commence the intercept at any altitude and airspeed, maneuvering. Bogies should use self-protect jamming techniques or be screened by a stand-off jammer. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. Three intercepts required for completion.

Mission Performance Standards

- (a) Executes proper radar mechanics in a EA environment.
- (b) Recognizes threat tactics and different jamming techniques.
- (c) Takes valid shots.
- (d) Timeline awareness.

Prerequisite. ACM-242.

e. Flight Training. (7 Flights, 9.1 Hours).

ACM-332

1.3 2 FA-18A/C vs Unknown Adversaries (NS)

Goal. Conduct an OCA (Sweep) mission against an unknown number of bogies with SAR-1 and IR-3 missiles. Emphasize section intercept procedures, maintaining proper formation, targeting and sorting, valid weapons employment, and standardized communication.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. Bandits commence the intercept at any altitude and airspeed, maneuvering. Bandits present a level 3 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID

criteria set by flight lead according to theater of operation.
Three runs required for completion.

Mission Performance Standards

- (a) Maintains mutual support.
- (b) Executes proper radar mechanics.
- (c) Targets as directed.
- (d) Recognizes threat tactics.
- (e) Takes valid shots.
- (f) Timeline awareness.

Prerequisite. SACM-330.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two or more adversaries.

ACM-333

1.3 R 2 FA-18A/C/D vs 2+ Dissimilar Adversaries A

Goal. Conduct section OCA (Escort) attacks against an unknown number of bogies with SAR-1 and IR-3 missiles. Emphasize section intercept procedures, maintaining proper formation, targeting and sorting, VID weapons employment, and standardized communications.

Requirement. With a minimum of 40 NM separation, the fighters commence the OCA (Escort) intercept at medium altitude. The bogies commence the intercept at any altitude and airspeed, maneuvering. Bogies present a level 3 simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with a PHID criteria set by flight lead according to theater of operation. Three intercepts required for completion. Two of the three must be VID.

Mission Performance Standards

- (a) Maintains mutual support.
- (b) Executes proper radar mechanics.
- (c) Targets as directed.
- (d) Recognizes threat tactics.
- (e) Takes valid shots.
- (f) Timeline awareness.

Prerequisite. ACM-245, SACM-330.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two or more dissimilar adversaries.

ACM-334

1.3 R 4/2 FA-18A/C/D vs Unknown Adversaries A (NS)

Goal. Conduct a DCA (Point Defense) mission against an unknown number of adversaries with SAR-1 and/or IR-3 missiles. Emphasize commit criteria, reset criteria, desired engagement zone, targeting/sorting, valid weapons employment, and standardized communications.

Requirement. One defined vulnerability period required for completion. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. On one run, PID criteria will not be satisfied until after planned weapons employment range.

Mission Performance Standards

- (a) Maintains mutual support.
- (b) Executes proper radar mechanics.
- (c) Targets as directed.
- (d) Recognizes threat tactics.
- (e) Takes valid shots.
- (f) Timeline awareness.
- (g) Tactical decision making IAW mission objectives.

Prerequisite. ACM-245, SACM-330.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two or more adversaries.

ACM-335

1.3 4/2 FA-18A/C vs 2+ Dissimilar Adversaries A

Goal. Conduct an OCA (Screen) mission against an unknown number of bogies with SAR-1 and/or IR-3 missiles. Emphasize section intercept procedures, maintaining proper formation, targeting and sorting, VID weapons employment, and standardized communications.

Requirement. With a minimum of 40 NM separation, the fighters commence the OCA (Screen) intercept at medium altitude. The bogies commence the intercept at any altitude and airspeed, maneuvering. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria that prevent weapons employment until a VID. Three intercepts required for completion. Two of the three must be VID.

Mission Performance Standards

- (a) Maintains mutual support.
- (b) Executes proper radar mechanics.
- (c) Targets as directed.
- (d) Recognizes threat tactics.
- (e) Takes valid shots.
- (f) Timeline awareness.
- (g) Tactical decision making IAW mission objectives.

Prerequisite. ACM-245, SACM-330.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two or more adversaries.

ACM-336

1.3 4/2 FA-18A/C vs 2+ Adversaries A (NS)

Goal. Conduct a DCA (HVAAP) mission against an unknown number of bogies with SAR-1 and/or IR-3 missiles. Emphasize commit

criteria, reset criteria, desired engagement zone, targeting/sorting, valid weapons employment, and standardized communications.

Requirement. One defined vulnerability period required for completion. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. On one run, PID criteria will not be satisfied until after planned weapons employment range.

Mission Performance Standards

- (a) Maintains mutual support.
- (b) Executes proper radar mechanics.
- (c) Targets as directed.
- (d) Recognizes threat tactics.
- (e) Takes valid shots.
- (f) Timeline awareness.
- (g) Tactical decision making IAW mission objectives.

Prerequisite. ACM-245, SACM-330.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two or more adversaries.

ACM-337

1.3 4/2 FA-18A/C vs 2+ Adversaries A (NS)

Goal. Conduct section or division attacks against an unknown number of adversaries with SAR-1 and/or IR-3 missiles in an EA environment.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. The adversaries commence the intercept at any altitude and airspeed, maneuvering. Adversaries should use self-protect jamming techniques or be screened by a stand-off jammer. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. Three intercepts required for completion.

Mission Performance Standards

- (a) Executes proper radar mechanics in a EA environment.
- (b) Recognizes threat tactics and different jamming techniques.
- (c) Maintains mutual support.
- (d) Executes proper radar mechanics.
- (e) Targets as directed.
- (f) Recognizes threat tactics.
- (g) Takes valid shots.
- (h) Timeline awareness.
- (i) Tactical decision making IAW mission objectives.

Prerequisite. ACM-245, SACM-330, 331.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two adversaries with self-protect jamming equipment or two adversaries and one stand-off jammer.

ACM-338 1.3 4 FA-18A/C/D vs 2+ Dissimilar Adversaries A (NS)

Goal. Introduce division OCA (Self Escort Strike) attacks against an unknown number of adversaries with SAR-1 and/or IR-3 missiles. Emphasize division intercept procedures, maintaining proper formation, targeting and sorting, VID weapons employment, and standardized communications.

Requirement. With a minimum of 40 NM separation, the fighters commence the intercept at medium altitude. The bogies commence the intercept at any altitude and airspeed, maneuvering. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. Three intercepts required for completion, with at least one requiring a VID.

Mission Performance Standards

- (a) Maintains mutual support.
- (b) Executes proper radar mechanics.
- (c) Targets as directed.
- (d) Recognizes threat tactics.
- (e) Takes valid shots.
- (f) Timeline awareness.
- (g) Tactical decision making IAW mission objectives.

Prerequisite. ACM-245, SACM-330.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two or more dissimilar adversaries.

3. Close Air Support (CAS)

- a. Purpose. To develop proficiency in performing CAS missions.
- b. General

(1) Emphasize mission planning, aircraft system management, attack parameters, delivery modes, designation techniques, information flow through the C³ system, and adherence to CAS procedures and all FAC or FAC(A) instructions.

(2) The commanding officer may authorize heavy inert ordnance in lieu of live ordnance when necessary. Ensure required ordnance not available (TRK-598) code is logged.

(3) Aircraft should be configured with operable VTR/CVRS, ALQ-126B, ALR-67, CATM-9, targeting FLIR, LDT, KY-58, and chaff and flares when possible.

- c. Academic Training. Refer to MAWTS-1 Course Catalog.
- d. Simulator Training. (1 period, 1.0 hour).

SCAS-350 1.0 WTT/TOFT S

Goal. Type 2 CAS procedures and use of the CAS page.

Requirement. Conduct Type 2 CAS. Emphasize systems management and communications. Three attacks utilizing JDAM, three attacks utilizing LGBs and three attacks utilizing Laser Maverick for completion.

e. Flight Training. (3 Flights, 3.9 Hours).

CAS-351 1.3 2 FA-18A/C/D A NS

Goal. Conduct night low threat CAS under FAC(A) control. Emphasize mission planning, aircraft system management, attack parameters, delivery modes, designation techniques, information flow through the C³ system, and adherence to CAS procedures and all FAC(A) instructions.

Requirement. Conduct night low threat CAS under FAC(A) control. Two deliveries using talk-on and two deliveries using either a visual or laser mark required for completion.

Mission Performance Standards

- (a) Accurately copies CAS brief from terminal controller.
- (b) Delivers weapons with effects on target within 15 seconds of TOT.
- (c) Delivers weapons only when cleared by the terminal controller.
- (d) Makes an accurate correction from mark or lead's hit.
- (e) Adheres to tactical abort parameters, when applicable.

Prerequisite. None.

Ordnance. 4 BDU-45, 250 rds of 20 mm, 4 LUU-2, 10 chaff, and 20 flares.

External Syllabus Support. FAC(A), 2 WP marks or laser designation platform, and 4 Illum rds. Inert/live ordnance range.

CAS-352 1.3 R 2 FA-18A/C/D A NS

Goal. Conduct night medium/high threat CAS under FAC or FAC(A) control and evaluate CAS procedures. Emphasize mission planning, aircraft system management, attack parameters, delivery modes, designation techniques, information flow through the C³ system, and adherence to CAS procedures and all FAC or FAC(A) instructions.

Requirement. Conduct night medium/high threat CAS under FAC or FAC(A) control. Two deliveries using either a visual or laser mark required for completion.

Mission Performance Standards

- (a) Accurately copies CAS brief from terminal controller.
- (b) Delivers weapons with effects on target within 15 seconds of TOT.

- (c) Delivers weapons only when cleared by the terminal controller.
- (d) Makes an accurate correction from mark or lead's hit.
- (e) Adheres to tactical abort parameters, when applicable.

Prerequisite. CAS-252.

Ordnance. 4 MK-82, 250 rds of 20 mm, 4xLUU-2, 10 chaff, and 20 flares.

External Syllabus Support. FAC or FAC(A), 8 HE rds, 2 WP/RP/ILLUM/Smoke marks or laser designation platform, and 4 Illum rds. Live ordnance range.

CAS-353

1.3 2 FA-18A/C/D A (NS)

Goal. Conduct low threat Urban CAS under FAC or FAC(A) control. Emphasize CAS procedures, mission planning, attack parameters, delivery modes, designation techniques, and information flow through the C³ system.

Requirement. Conduct low threat Urban CAS under FAC or FAC(A) control. Two deliveries using either a visual/laser mark or talk-on required for completion.

Mission Performance Standards

- (a) Accurately copies CAS brief from terminal controller.
- (b) Delivers weapons with effects on target within 15 seconds of TOT.
- (c) Delivers weapons only when cleared by the terminal controller.
- (d) Makes an accurate correction from mark or lead's hit.
- (e) Adheres to tactical abort parameters, when applicable.

Prerequisite. CAS-351.

Ordnance. 6 MK-76, 2 LGTR, 250 rds of 20 mm, 4xLUU-2, 10 chaff, and 20 flares.

External Syllabus Support. FAC or FAC(A), 8 HE rds, 2 WP/RP/ILLUM/Smoke marks or laser designation platform, and 4 Illum rds.

4. Armed Reconnaissance (AR)

a. Purpose. To develop proficiency in conducting AR missions.

b. General

(1) Emphasize mission planning, mutual support, target acquisition/recognition/identification, target area tactics and information flow through the C³ system.

(2) The commanding officer may authorize inert ordnance in lieu of live ordnance when necessary. Ensure required ordnance not available (TRK-598) code is logged.

(3) Binoculars may be utilized for target acquisition during AR missions.

(4) Aircraft should be configured with operable VTR/CVRS, ALQ-126B, ALR-67, CATM-9, targeting FLIR, LDT, KY-58, chaff, and flares when possible.

- c. Academic Training. Refer to MAWTS-1 Course Catalog.
- d. Simulator Training. None.
- e. Flight Training. (4 Flights, 5.2 Hours).

AR-360 1.3 R 2 FA-18A/C/D A

Goal. Conduct day med/high altitude PGM AR. Emphasize mission planning, target precedence, search pattern, attack parameters, delivery modes, designation techniques, and information flow through the C³ system.

Requirement. Conduct day med/high altitude PGM AR to locate, plot, and destroy targets of opportunity.

Mission Performance Standards

- (a) Able to conduct visual reconnaissance of assigned area and detect targets.
- (b) Able to plot targets with an error less than 300 meters.
- (c) Performs target attacks appropriate for scenario.
- (d) Delivers weapons with effects on target.

Prerequisite. AR-261.

Ordnance. 1 Laser or IR Maverick (live or captive), 1 GBU-10/12 or 16, 10 chaff and 20 flares.

External Syllabus Support. Live ordnance range (laser authorized).

AR-361 1.3 E 2 or 4 FA-18A/C/D A NS

Goal. Conduct night med/high altitude PGM AR. Emphasize mission planning, target precedence, search pattern, attack parameters, delivery modes, designation techniques, and information flow through the C³ system.

Requirement. Conduct night med/high altitude PGM AR to locate, plot, and destroy targets of opportunity.

Mission Performance Standards

- (a) Able to conduct visual reconnaissance of assigned area and detect targets.
- (b) Able to plot targets with an error less than 300 meters.
- (c) Performs target attacks appropriate for scenario.
- (d) Delivers weapons with effects on target.

Prerequisite. AR-262, 360.

Ordnance. 1 Laser or IR Maverick (live or captive), 1 GBU-10/12/ or 16, 10 chaff and 20 flares.

External Syllabus Support. Inert/live ordnance range (laser authorized).

AR-362

1.3 2+ FA-18A/C/D A (NS)

Goal. Conduct day or night Strike Coordination And Reconnaissance (SCAR). Emphasize locating targets in accordance with a target precedence list, notifying AR assets of target locations and current threat, and proper information flow through the C³ system.

Requirement. Coordination of one element of AR required for completion.

Mission Performance Standards

- (a) Locates targets with an error less than 300 meters.
- (b) Prioritizes targets according to target precedence list.
- (c) Assists AR assets in locating targets and coordinates target attacks.

Prerequisite. AR-261.

Ordnance. 7 2.75-inch WP rockets, 2 MK-82, 10 chaff, and 20 flares.

External Syllabus Support. One element of armed reconnaissance aircraft. Live ordnance range.

AR-363

1.3 2 FA-18A/C/D A (NS)

Goal. Conduct assault support escort. Emphasize mission planning, target precedence, search pattern, attack parameters, delivery modes, designation techniques, and information flow through the C³ system.

Requirement. Conduct assault support along a route to locate and destroy targets of opportunity in a low or medium threat environment.

Mission Performance Standards

- (a) Locates and attacks targets.
- (b) Informs assault support flight of threat.

Prerequisite. LAT qualified.

Ordnance. CATM-9, 4 BDU-45, 10 chaff, and 20 flares.

External Syllabus Support. Minimum 1 Helicopter/Assault support package.

5. Air Interdiction (AI)

a. Purpose. To develop proficiency in conducting AI missions.

b. General

(1) Emphasize mission planning, tactical decision making, mutual support and target acquisition/destruction. Ordnance types may be

substituted based on the mission, threat and to vary tactics and training requirements.

(2) The commanding officer may authorize inert ordnance in lieu of live ordnance when necessary. Ensure required ordnance not available (TRK-598) code is logged.

(3) Aircraft should be configured with operable VTR/CVRS, ALQ-126B, ALR-67, CATM-9, targeting FLIR, LDT, KY-58, chaff, and flares when possible.

- c. Academic Training. Refer to MAWTS-1 Course Catalog.
- d. Simulator Training. None
- e. Flight Training. (3 flights, 3.9 hours).

AI-370 1.3 2 FA-18A/C/D vs 2+ Adversaries A NS

Goal. Conduct a section, night AI mission against a target with air defenses. Emphasize air-to-surface and air-to-air mission planning, tactical decision making, mutual support and target acquisition/destruction.

Requirement. Attack and destroy a surface target. Plan a strike route using a mission planning system. Use JMEMs to weaponize a specific target. Perform an INS update using the radar or FLIR. Execute ingress, ordnance delivery and egress tactics consistent with the threat.

Mission Performance Standards

- (a) Maintains briefed tactical formations on ingress/egress.
- (b) Recognizes and reacts appropriately to threats.
- (c) Delivers weapons on planned DMPI.
- (d) Adheres to TACSOP valid delivery parameters.

Prerequisite. AI-271 and NSQ.

Ordnance. 1 GBU-10/12 or 16, 20 chaff, and 10 flares.

External Syllabus Support. One or more adversaries and one tanker (if AAR required). Live ordnance and laser safe range.

AI-371 1.3 4 FA-18A/C/D A NS

Goal. Conduct a division, night AI mission against a target with air defenses. Emphasize air-to-surface mission planning, tactical decision making, mutual support and target acquisition/destruction.

Requirement. Attack and destroy a surface target. Plan a strike route using a mission planning system. Use JMEMs to weaponize a specific target. Perform an INS update using the radar or FLIR. Execute ingress, ordnance delivery and egress tactics consistent with the threat.

Mission Performance Standards

- (a) Maintains briefed tactical formations on ingress/egress.
- (b) Recognizes and reacts appropriately to threats.

- (c) Delivers weapons on planned DMPI.
- (d) Adheres to TACSOP valid delivery parameters.

Prerequisite. AI-271, 370, and NSQ.

Ordinance. 4 MK-83 inert, 20 chaff, and 10 flares.

External Syllabus Support. One tanker (if AAR required).

AI-372

1.3 R 4 FA-18A/C/D vs 2+ Adversaries A

Goal. Conduct a division, day AI mission against a target with air defenses. Emphasize air-to-surface and air-to-air mission planning, tactical decision making, mutual support and target acquisition/destruction.

Requirement. Attack and destroy a surface target. Plan a strike route using mission planning systems. Use JMEmS to weaponize a specific target. Perform an INS update using the radar or FLIR. Execute ingress, ordnance delivery and egress tactics consistent with the threat.

Mission Performance Standards

- (a) Maintains briefed tactical formations on ingress/egress.
- (b) Recognizes and reacts appropriately to threats.
- (c) Delivers weapons on planned DMPI.
- (d) Adheres to TACSOP valid delivery parameters.

Prerequisite. AI-272.

Ordinance. 4 MK-83, CATM-9, 20 chaff, and 10 flares.

External Syllabus Support. One or more adversaries and one tanker (if AAR required). Live ordnance range.

6. Forward Air Controller (Airborne) FAC(A)

- a. Purpose. To develop proficiency in FAC(A).
- b. General

(1) Prior to beginning this stage, pilots shall be designated as a section leader by the commanding officer and WSOs shall be complete with all 200 level events.

(2) Nonqualified aircrew will fly FAC(A)-380 through FAC(A)-387 with a MAWTS-1 certified FAC(A)I designated by the commanding officer. The FAC(A)I may be in the FAC(A) or escort aircraft. The FAC(A)I may simulate the ground FAC if one is not available.

(3) The commanding officer may designate aircrew as FAC(A) qualified upon successful completion of this stage of training through FAC(A)-387.

(4) A non-qualified FAC(A) aircrew must have a FAC(A)I in the section and may not control CAS closer than the most conservative of minimum safe distance, 1000 meters, or range regulations. A FAC(A) qualified aircrew (pilot and WSO) may not employ CAS closer than the most conservative of minimum safe distance or range regulations.

- c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. None.

e. Flight Training. (8 Flights, 10.4 Hours).

FAC(A)-380 1.3 FA-18D and 1 Escort A (NS)

Goal. Introduce FAC(A) procedures in a low threat environment.

Requirement. Perform visual reconnaissance of three separate targets on a tactical range. Plot targets on a 1:50,000 map and prepare target briefs. Control four separate attacks by attack aircraft utilizing low threat tactics. Use appropriate CAS briefing and control procedures. Perform authentication procedures. Deliver or coordinate marking rounds on target. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft, and the ability to provide talk-ons. Provide BHA. Four controls required for completion.

Mission Performance Standards

- (a) Locates targets and plots with an error less than 100 meters.
- (b) Provides accurate verbal description during talk-on attacks.
- (c) If required, marks the target with a CEP less than 100 meters.
- (d) Visually acquires CAS assets and provides timely control and corrections.

Prerequisite. Academic requirements complete.

Ordinance. 7 2.75-inch WP rockets, 10 chaff, and 10 flares.

External Syllabus Support. One or two FW CAS elements and a ground FAC. Indirect Fire Support (IDFS) asset with 4 WP rds if IDFS is to be used for marking or suppression.

FAC(A)-381 1.3 R FA-18D and 1 Escort A (NS)

Goal. Introduce FAC(A) procedures in an medium to high threat environment.

Requirement. Perform reconnaissance of three separate targets on a tactical range. Plot targets on a 1:50,000 map and prepare target briefs. Control at least four separate attacks by CAS aircraft. Deliver or coordinate marking rounds on target 30 seconds prior to TOT using appropriate medium threat tactics. Demonstrate ability to provide timely, accurate corrections for CAS aircraft. Provide BDA. Four controls required for completion.

Mission Performance Standards

- (a) Locates targets and plots with an error less than 100 meters.
- (b) Marks the target with a CEP less than 100 meters.
- (c) Employs TTPs commensurate with the briefed threat.
- (d) Visually acquires CAS assets and provides timely control and corrections.

Prerequisite. FAC(A)-380. If artillery or mortars are used for marking, completion of FAC(A)-382 is required prior to the conduct of this sortie.

Ordnance. 7 2.75-inch WP rockets, 10 chaff, and 10 flares.

External Syllabus Support. One to two FW CAS elements and a ground FAC. IDFS asset with 4 WP rds and 8 HE rds if IDFS is to be used for marking or suppression.

FAC(A)-382

1.3 R FA-18D and 1 Escort A

Goal. Introduce day naval gunfire/mortar/artillery airspot.

Requirement. Perform visual reconnaissance on tactical targets, plot on a 1:50,000 map and deliver a call-for-fire brief. Emphasize accurate call-for-fire communications and adjustment procedures and appropriate TTPs for the threat scenario. One low threat adjust fire, one immediate suppression, one mark and SEAD mission, and one high threat mark and SEAD mission are required for completion.

Mission Performance Standards

- (a) Locates targets and plots with an error less than 100 meters.
- (b) Employs proper communications format with the firing unit.
- (c) Provides timely and accurate corrections to the firing unit. Requires four rounds or less to achieve a bracket sufficient for a Fire For Effect (FFE). Completes an immediate suppression CFF within 60 seconds of receiving the mission from the FAC/FO.

Prerequisite. None.

Ordnance. 10 chaff and 10 flares.

External Syllabus Support. Naval gunfire/mortar/artillery unit and a minimum of 10 HE rds and 2 WP rds. A ground FAC or FO.

FAC(A)-383

1.3 FA-18D and 1 Escort A NS

Goal. Practice night naval gunfire/mortar/artillery airspot.

Requirement. Perform visual reconnaissance on tactical targets, plot on a 1:50,000 map and prepare a call-for-fire brief. Emphasize accurate call-for-fire communications and adjustment procedures and appropriate TTPs for the threat scenario. One low threat adjust fire, one immediate suppression, one mark and SEAD mission, and one high threat mark and SEAD mission. At least one mission must include coordinated illumination.

Mission Performance Standards

- (a) Locates targets and plots with an error less than 100 meters.
- (b) Employs proper communications format with the firing unit.
- (c) Provides timely and accurate corrections to the firing

unit. Requires four rounds or less to achieve a bracket sufficient for a FFE. Completes an immediate suppression CFF within 60 seconds of receiving the mission from the FAC/FO.
(d) Employs TTPs appropriate for the threat.

Prerequisite. FAC(A)-382.

Ordnance. 4 LUU-2/19, 10 chaff and 10 flares.

External Syllabus Support. Naval gunfire/mortar/artillery unit and a minimum of 10 HE rds, 2 WP rds, and 8 Illum rds. A FAC or FO.

FAC(A)-384

1.3 FA-18D and 1 Escort A (NS)

Goal. Introduce FAC(A) procedures for controlling RW CAS in all threat environments.

Requirement. Perform visual reconnaissance of three targets on a tactical range. Plot the targets and prepare target briefs. Control four separate attacks by attack helicopters using low threat tactics. Use appropriate RW CAS control procedures, and authentication as required. Deliver or coordinate marking rounds and provide accurate, timely corrections. Demonstrate the ability to use talk-ons in lieu of ordnance marks. If conducted at night, use appropriate flare tactics for target illumination.

Mission Performance Standards

- (a) Locates targets and plots with an error less than 100 meters.
- (b) Employs proper communications format with the firing unit.
- (c) Provides timely and accurate corrections to the firing unit. Requires four rounds or less to achieve a bracket sufficient for a FFE. Completes an immediate suppression CFF within 60 seconds of receiving the mission from the FAC/FO.
- (d) Employs TTPs appropriate for the threat.

Prerequisite. FAC(A)-383.

Ordnance. 7 2.75-inch WP rockets, 10 chaff, and 10 flares. 4 LUU-2/19 (if conducted at night).

External Syllabus Support. Two RW CAS aircraft and a ground FAC. IDFS asset with 8 HE rds and 4 WP rds if IDFS is to be used for marking.

FAC(A)-385

1.3 R FA-18D and 1 Escort A NS

Goal. Practice night FAC(A) procedures in a low threat environment.

Requirement. Perform reconnaissance of three separate targets on a tactical range. Plot targets on a 1:50,000 map and prepare target briefs. Control at least four separate attacks by CAS aircraft. Deliver or coordinate marking rounds on target 30 seconds prior to TOT using appropriate threat tactics. Demonstrate ability to provide timely, accurate corrections for CAS aircraft. Provide BDA. Four controls

required for completion. Use flare tactics for target illumination.

Mission Performance Standards

- (a) Locates targets and plots with an error less than 100 meters.
- (b) Provides accurate verbal description during talk-on attacks.
- (c) If required, marks the target with a CEP less than 100 meters.
- (d) Visually acquires CAS assets and provides timely control and corrections.

Prerequisites. FAC(A)-380. If RW CAS assets are used, completion of FAC(A)-384 is required. If artillery or mortars are used for target marking or threat suppression, FAC(A)-382 is required.

Ordnance. 7 2.75-inch WP rockets, 10 chaff, and 10 flares.
4 LUU-2/19.

External Syllabus Support. One to two CAS elements and a ground FAC. IDFS asset with 4 WP rds and 8 Illum rds if IDFS is to be used for marking or suppression.

FAC(A)-386

1.3 FA-18D and 1 Escort A NS

Goal. Practice night FAC(A) procedures in a medium to high threat environment.

Requirement. Perform reconnaissance of three separate targets on a tactical range. Plot targets on a 1:50,000 map and prepare target briefs. Control at least four separate attacks by RW and/or FW CAS aircraft. Deliver or coordinate marking rounds on target 30 seconds prior to TOT using appropriate threat tactics. Use flare tactics for target illumination if threat allows. Demonstrate ability to provide timely, accurate corrections for CAS aircraft. Provide BDA. Four controls required for completion.

Mission Performance Standards

- (a) Locate and plot targets with an error less than 100 meters.
- (b) Mark the target with a CEP less than 100 meters.
- (c) Visually acquire CAS assets and provide timely control and corrections.
- (d) Employ appropriate TTPs commensurate with threat scenario.

Prerequisite. FAC(A)-381, 385. If RW CAS assets are utilized, completion of FAC(A)-384 is required. If artillery or mortars are used for marking or suppression, completion of FAC(A)-383 is required.

Ordnance. 7 2.75-inch WP rockets, 20 chaff, and 10 flares.
4 LUU-2/19.

External Syllabus Support. One to two CAS elements and a ground FAC. IDFS asset with 8 HE rds, 4 WP rds, and 8 Illum rds if IDFS is to be used for marking or suppression.

FAC(A)-387 1.3 E FA-18D and 1 Escort A (NS)

Goal. Practice supporting arms integration in any threat environment.

Requirement. Perform visual reconnaissance and plot three targets on a 1:50,000 map. Prepare CAS briefs. Employ appropriate TTPs to control coordinated attacks on the targets, managing air space as required to achieve maximum effect on target, aircraft deconfliction, and deconfliction of ordnance effects (i.e. fragmentation, forward firing ordnance, etc). At least one target attack should incorporate simultaneous target attacks by two or more dissimilar assets. This evaluation sortie should be flown in a MAGTF level exercise if possible.

Mission Performance Standards

- (a) Locate targets and plots with an error less than 100 meters.
- (b) Coordinate target attacks using appropriate TTPs.
- (c) If required, mark the target with a CEP less than 100 meters.
- (d) Visually acquire CAS assets and provides timely control and corrections.

Prerequisite. Completion of all previous FAC(A) sorties.

Ordnance. 7 2.75-inch WP rockets, 10 chaff, and 10 flares.
4 LUU-2/19 (if conducted at night).

External Syllabus Support. Two or more dissimilar supporting arms assets with a minimum of 8 HE rds and 4 WP rds, either FW or RW CAS aircraft and artillery and/or mortars.

7. Tactical Air Coordinator (Airborne) TAC(A)

- a. Purpose. To develop proficiency in TAC(A).
- b. General

(1) This phase of training is designed for experienced aircrew.

(2) Prior to commencing the TAC(A) syllabus, aircrew must be FAC(A) qualified. Non-qualified aircrew will fly TAC(A)-390 and TAC(A)-391 with a MAWTS-1 certified TAC(A)I designated by the commanding officer. The TAC(A)I may be in the escort aircraft.

(3) The commanding officer may designate aircrew as TAC(A) qualified upon successful completion of this phase of training through TAC(A)-391.

- c. Academic Training. Refer to MAWTS-1 Course Catalog.
- d. Simulator Training. None.
- e. Flight Training. (2 Flights, 2.6 Hours).

TAC(A)-390 1.3 R FA-18D and 1 Escort A (NS)

Goal. Introduce TAC(A) procedures.

Requirement. Integrate CAS with a single terminal controller [FAC/FAC(A)]. Manage airspace and multiple ingressing/egressing aircraft. Conduct airborne relay of target briefs. Minimum of two CAS elements required for completion.

Mission Performance Standards

- (a) Able to accurately copy immediate JTAR.
- (b) Able to coordinate timely CAS in response to immediate request.
- (c) Able to pass CAS aircraft BDA via the C³ system.

Prerequisite. FAC(A)-387, FAC(A) qualified.

Ordinance. None.

External Syllabus Support. Two CAS elements and one terminal controller [FAC/FAC(A)].

TAC(A)-391 1.3 E FA-18D and 1 Escort A (NS)

Goal. Practice TAC(A) procedures with multiple terminal controllers.

Requirement. Perform coordination of attack aircraft and multiple terminal controllers. Receive attack briefings from the FAC/FAC(A) and assign appropriate CAS aircraft. Coordinate target mark and control with the FAC/FAC(A). Manage assigned airspace and provide command and control system with essential elements of information. Perform authentication procedures (as required).

Mission Performance Standards

- (a) Able to accurately copy immediate JTAR.
- (b) Able to coordinate timely CAS in response to immediate request.
- (c) Able to pass CAS aircraft BDA via the C³ system.

Prerequisite. TAC(A)-390.

Ordinance. None.

External Syllabus Support. FAC, FAC(A), and one to four CAS elements.

133. 400 LEVEL TRAINING (FA-18A/C/D)

1. Night Systems (NS)

a. Purpose. To develop proficiency using Night Vision Devices (NVDs) in the low altitude environment.

b. General

(1) A MAWTS-1 certified NSI pilot flight lead is required to fly with non-NSQ Low pilots for NS-410 through NS-412 in FA-18C aircraft. A MAWTS-1 certified NSI pilot flight lead and an NSI Pilot/WSO crewed with the non-NSQ Low aircrew are required for FA-18Ds.

(2) At the discretion of the commanding officer, NSQ Low aircrew may fly any night or night optional event in the T&R with the aid of NVGs. NSQ Low aircrew may fly to a minimum altitude of 1000 ft AGL in LLL conditions (lux less than 0.0022) and down to 300 ft AGL in HLL conditions (lux greater than 0.0022).

(3) After successful completion of NS-412, the aircrew is eligible to be designated NSQ Low qualified by the commanding officer.

(4) NS-411 and NS-412 require that all members of the flight are LAT qualified. Consult T&R Program Manual for night LAT currency and altitude restrictions.

(5) Consult T&R Program Manual for applicable light level and currency restrictions for NS sorties.

- c. Academic Training. Refer to MAWTS-1 Course Catalog.
- d. Simulator Training. None.
- e. Flight Training. (3 flights, 3.9 hours).

NS-410 1.3 2 FA-18A/C/D A NS

Goal. Practice low altitude ingress, target acquisition and target attacks at night in the LAT environment.

Requirement. Conduct a section low level and section attacks. One low level and four section attacks on a raked range required for completion.

Mission Performance Standards

- (a) Knows and understands visual illusions associated with NVD usage.
- (b) Achieves a CEP within the TACSOP valid bomb accuracy parameters.
- (c) Adheres to tactical abort parameters.

Prerequisite. NS-214, NSQ Hi and LAT Qualified.

Ordnance. 6 MK-76, 10 chaff.

External Syllabus Support. Approved MTR, scored raked range.

NS-411 1.3 2 FA-18A/C/D A NS

Goal. Introduce night single ship conventional LAT using NVDs. Emphasize LAT procedures using NVDs, communications, and maneuver techniques.

Requirement. As a single ship, perform descent to CL, straight and level, ridgeline crossings, and Nav/Hard/Break turns. Two circuits required for completion, the first circuit at CL no lower than 500 ft AGL and the remaining circuits at CL no lower than 300 ft AGL.

Mission Performance Standards

- (a) Knows and understands visual illusions associated with NVD usage.
- (b) Knows and understands mission cross check times.

Prerequisite. NS-410, NSQ Hi and LAT Qualified.

Ordinance. None.

External Syllabus Support. Certified LAT course.

NS-412

1.3 R E 2 FA-18A/C/D A NS

Goal. Introduce night section 2 dimensional LAT using NVDs and evaluate Night Systems procedures.

Requirement. As a wingman, perform descent to CL, straight and level, turns, ridgeline crossings, night formations, and section attacks. Two circuits required for completion, the first circuit at CL no lower than 500 ft AGL and the remaining circuits at CL no lower than 300 ft AGL.

Mission Performance Standards

- (a) Able to maintain formation in the LAT environment.
- (b) Knows guidelines for NVD use outlined in T&R Program Manual.
- (c) Executes successful target attack and maintains mutual support.
- (d) Achieves a CEP within the TACSOP valid bomb accuracy parameters.
- (e) Adheres to tactical abort parameters.

Prerequisite. NS-411, NSQ Hi and LAT Qualified.

Ordinance. 6 MK-76, 10 chaff, 10 flares.

External Syllabus Support. Certified LAT course.

2. Air Combat Maneuvering (ACM)

a. Purpose. To conduct advanced air-to-air missions.

b. General

(1) All general notes from the 200 and 300 Level ACM stages apply to this stage.

(2) These sorties are designed to be flown by experienced and qualified aircrew.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. None.

e. Flight Training. (6 Flights, 7.8 Hours).

ACM-430

1.3 1+ FA-18A/C/D A

Goal. Introduce the aerial gunnery pattern. Emphasize pattern procedures, pipper control, firing technique, and postflight analysis.

Requirement. Conduct a dry or live fire aerial gunnery pattern. Eight runs on a maneuvering or non-maneuvering banner/dart required for completion.

Mission Performance Standards

- (a) Able to achieve 10% hits.
- (b) Flies a safe consistent pattern.
- (c) Responds to range safety officer commands.

Prerequisite. ACM-245.

Ordnance. 500 rds of 20 mm.

External Syllabus Support. One banner/dart tow aircraft.

ACM-431

1.3 2 FA-18A/C/D vs 2+ Adversaries A (NS)

Goal. Introduce aircrew to peacetime intercept and escort procedures. Emphasize adherence to ICAO procedures, standing ROE, and appropriate tactics, techniques, and procedures.

Requirement. With a minimum of 40 NM separation, fighters commence intercept of bogies. Fighters perform a point defense/HVAA mission in a peacetime scenario with a weapons control status of tight. Bogies simulate fighter aircraft armed with SAR-1 and/or IR-3 missiles and having unknown ROE and intentions. Bogies commence intercepts at any altitude, subsonic, and non-maneuvering. Fighters intercept and escort bogies according to briefed procedures. On at least one intercept bogies demonstrate hostile intent. Two intercept and escorts required for completion.

Mission Performance Standards

- (a) Intercepts bogies and arrives in an offensive position.
- (b) Adheres to ICAO procedures and standing ROE.
- (c) Recognizes display of hostile intentions by bogies and reacts appropriately.

Prerequisite. ACM-245.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two or more adversaries.

ACM-432

1.3 2 FA-18A/C/D vs 1-2 Rotary Wing/Prop Aircraft A (NS)

Goal. Introduce aircrew to helicopter/prop aircraft attack. Emphasize optimum weapons employment.

Requirement. Conduct visual attacks against helicopters/prop aircraft using appropriate captive air-to-air and simulated air-to-ground ordnance. One attack with a radar missile, one

attack with the CATM-9, one attack with the air-to-air gun, one attack with the air-to-ground gun, and one attack with a GP bomb required for completion.

Mission Performance Standards

- (a) Maintains offensive position on adversary aircraft.
- (b) Valid air-to-air and air-to-ground weapons employment.

Prerequisite. ACM and LAT qualified.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. One or more helicopters/prop aircraft.

ACM-433

1.3 4 FA-18A/C/D vs 2+ Dissimilar Adversaries A (NS)

Goal. Conduct division OCA (Screen) attacks against an unknown number of bogies with SAR-1 and/or IR-3 missiles. Emphasize division intercept procedures, maintaining proper formation, targeting and sorting, VID weapons employment, and standardized communications.

Requirement. With a minimum of 40 NM separation, the fighters commence the OCA (Screen) intercept at medium altitude. The adversaries commence the intercept at any altitude and airspeed, maneuvering. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with a PHID criteria that prevents weapons employment until a VID. Three intercepts required for completion.

Mission Performance Standards

- (a) Maintains mutual support.
- (b) Executes proper radar mechanics.
- (c) Targets as directed.
- (d) Recognizes threat tactics.
- (e) Takes valid shots.
- (f) Timeline awareness.
- (g) Tactical decision making IAW mission objectives.

Prerequisite. ACM-245.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two or more adversaries, TACTS range.

ACM-434

1.3 4 FA-18A/C/D vs 2+ Dissimilar Adversaries A NS

Goal. Conduct a night division OCA (Sweep) mission against an unknown number of bogies with SAR-2 or AR-1 missiles. Emphasize division intercept procedures, maintaining proper formation, targeting and sorting, valid weapons employment, and standardized communications.

Requirement. Three runs required for completion. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18

TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation.

Mission Performance Standards

- (a) Maintains mutual support.
- (b) Executes proper radar mechanics.
- (c) Targets as directed.
- (d) Recognizes threat tactics.
- (e) Takes valid shots.
- (f) Timeline awareness.
- (g) Tactical decision making IAW mission objectives.

Prerequisite. ACM-245.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two or more dissimilar adversaries, TACTS range.

ACM-435

1.3 4 F-18A/C/D vs 2+ Adversaries A NS

Goal. Conduct a night division Area Defense or HVAA escort mission against an unknown number of adversaries with SAR-2 or AR-1 missiles. Emphasize commit criteria, reset criteria, desired engagement zone, targeting/sorting, valid weapons employment, and standardized communications.

Requirement. One defined vulnerability period required for completion. Adversaries present a level 3 or 4 bandit simulation IAW the USMC FA-18 TACSOP. Fighter weapons control status is tight with PHID criteria set by flight lead according to theater of operation. On one run, PHID criteria will not be satisfied until after planned weapons employment range.

Mission Performance Standards

- (a) Maintains mutual support.
- (b) Executes proper radar mechanics.
- (c) Targets as directed.
- (d) Recognizes threat tactics.
- (e) Takes valid shots.
- (f) Timeline awareness.
- (g) Tactical decision making IAW mission objectives.

Prerequisite. ACM-338.

Ordnance. CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two or more adversaries, TACTS range.

3. Armed Reconnaissance (AR)

- a. Purpose. To conduct advanced AR missions.
- b. General. All general notes applicable to the 200 and 300 Level AR stages apply here.

- c. Academic Training. Refer to MAWTS-1 Course Catalog.
- d. Simulator Training. None.
- e. Flight Training. (2 Flights, 2.6 Hours).

AR-460 1.3 4 FA-18A/C/D A (NS)

Goal. Conduct division med/high altitude AR with the aid of a SCAR platform. Emphasize mission planning, target precedence, search pattern, attack parameters, delivery modes, designation techniques, and information flow through the C³ system.

Requirement. Conduct division med/high altitude PGM AR to locate, plot, and destroy targets of opportunity. Conduct battlefield handover with the SCAR platform.

Mission Performance Standards

- (a) Able to conduct visual reconnaissance of assigned area and detect targets.
- (b) Able to plot targets with an error less than 300 meters.
- (c) Performs target attacks appropriate for scenario.
- (d) Delivers weapons with effects on target.

Prerequisite. AR-261, 360.

Ordnance. 1 Laser or IR Maverick (live or captive), 4 MK-20, 10 chaff and 20 flares.

External Syllabus Support. Live ordnance range.

AR-461 1.3 4 F/A-18A/C/D A NS

Goal. Conduct night division med/high altitude AR. Emphasize mission planning, target precedence, search pattern, attack parameters, delivery modes, designation techniques, and information flow through the C³ system.

Requirement. Conduct night division med/high altitude AR to locate, plot, and destroy targets of opportunity.

Mission Performance Standards

- (a) Able to conduct visual reconnaissance of assigned area and detect targets.
- (b) Able to plot targets with an error less than 300 meters.
- (c) Performs target attacks appropriate for scenario.
- (d) Delivers weapons with effects on target.

Prerequisite. AR-460.

Ordnance. 1 Laser or IR Maverick (live or captive), 4 MK-82, 10 chaff and 20 flares.

External Syllabus Support. None.

4. Air Interdiction (AI)

- a. Purpose. To conduct advanced AI missions.

b. General. All general notes applicable to the 200 and 300 Level AI stages apply to this stage of training.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. None.

e. Flight Training. (3 Flights, 3.9 Hours).

AI-470 1.3 4 FA-18A/C/D vs 2+ Adversaries A NS

Goal. Conduct a night AI mission against a target with integrated air defenses. Emphasize air-to-surface and air-to-air mission planning, tactical decision making, mutual support and target acquisition/destruction.

Requirement. Attack and destroy a surface target. Plan a strike route using mission planning systems. Use JMEmS to weaponeer a specific target. Perform an INS update using the radar or FLIR. Execute ingress, ordnance delivery and egress tactics consistent with the threat.

Mission Performance Standards

- (a) Maintains briefed tactical formations on ingress/egress.
- (b) Recognizes and reacts appropriately to threats.
- (c) Delivers weapons on planned DMPI.

Prerequisite. AI-372.

Ordnance. 2 LGTR, 20 chaff, and 10 flares.

External Syllabus Support. One tanker (if AAR required), 2 or more adversaries, EW range.

AI-471 1.3 4+ FA-18A/C/D vs 2+ Adversaries A

Goal. Conduct a day AI mission against a target with integrated air defenses on an EW range simulating a high threat environment that includes bogies with SAR-1 and IR-3 missiles. Emphasize air-to-surface and air-to-air mission planning, tactical decision making, mutual support and target acquisition/destruction.

Requirement. Attack and destroy a surface target. Plan a strike route using a mission planning system. Use JMEmS to weaponeer a specific target. Perform an INS update using the radar or FLIR. Execute ingress, ordnance delivery and egress tactics consistent with the threat.

Mission Performance Standards

- (a) Maintains briefed tactical formations on ingress/egress.
- (b) Recognizes and reacts appropriately to threats.
- (c) Delivers weapons on planned DMPI.
- (d) Adheres to TACSOP valid delivery parameters.

Prerequisite. AI-372.

Ordnance. Minimum of 2 LGTR, CAGM-88, CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two or more adversaries, EW Range and a tanker (if AAR required).

AI-472

1.3 4+ FA-18A/C/D vs 2+ Adversaries A NS

Goal. Conduct a night AI mission against a target with integrated air defenses on an EW range simulating a high threat environment that includes bogies with SAR-1 and IR-3 missiles. Emphasize air-to-surface and air-to-air mission planning, tactical decision making, mutual support and target acquisition/destruction.

Requirement. Attack and destroy a surface target. Plan a strike route using a mission planning system. Use JMEMs to weaponize a specific target. Perform an INS update using the radar or FLIR. Execute ingress, ordnance delivery and egress tactics consistent with the threat.

Mission Performance Standards

- (a) Maintains briefed tactical formations on ingress/egress.
- (b) Recognizes and reacts appropriately to threats.
- (c) Delivers weapons on planned DMPI.
- (d) Adheres to TACSOP valid delivery parameters.

Prerequisite. AI-471.

Ordnance. Minimum of 2 LGTR, CAGM-88, CATM-9, 20 chaff, 10 flares, and CATM-7/120.

External Syllabus Support. Two or more adversaries, EW Range and a tanker (if AAR required).

5. Forward Air Controller (Airborne) FAC(A)

a. Purpose. To expose FA-18A/C pilots to low threat, day and night FAC(A).

b. General

(1) This stage is designed for a designated division lead.

(2) Aircrew shall fly FAC(A)-480 and 481 with a MAWTS-1 certified FA-18D FAC(A)I in the flight who is proficient in all aspects of FAC(A). The FAC(A)I may simulate the ground FAC if one is not available.

(3) Upon completion of this stage, FA-18A/C pilots shall not receive a FAC(A) qualification. This stage is intended to only offer an exposure to low threat FAC(A) procedures.

(4) Aircraft should be configured with operable CVRS, TFLIR, LDT, ALQ-126B, ALR-67, chaff, flares, KY-58, and CATM-9 when possible.

c. Academic Training. Refer to MAWTS-1 Course Catalog.

d. Simulator Training. None.

e. Flight Training. (2 Flights, 2.6 Hours).

FAC(A)-480 1.3 1 FA-18A/C and 1 FA-18D Escort A

Goal. Expose FA-18A/C pilots to day FAC(A) procedures in a low threat environment.

Requirement. Perform visual reconnaissance of three separate targets on a tactical range. Plot targets on a 1:50,000 map and prepare target briefs. Control four separate attacks by attack aircraft utilizing low threat tactics. Use appropriate CAS briefing and control procedures. Perform authentication procedures. Deliver or coordinate marking rounds on target. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft, and the ability to provide talk-ons. Provide BDA. Four controls required for completion.

Mission Performance Standards

- (a) Locates targets and plots with an error less than 300 meters.
- (b) Provides accurate verbal description during talk-on attacks.
- (c) Marks the target with a CEP less than 300 meters.
- (d) Visually acquires CAS assets and provides timely control and corrections.
- (e) Acquire target on FLIR and maintain laser illumination until CAS weapon impact plus 5 seconds.

Prerequisite. Designated division leader, academic requirements complete.

Ordnance. 7 2.75-inch WP rockets, 20 chaff, and 10 flares.

External Syllabus Support. Designated FA-18D FAC(A)I escort required. Two FW LDT capable CAS sections. Ground FAC.

FAC(A)-481 1.3 1 FA-18A/C and 1 FA-18D Escort A NS

Goal. Expose FA-18A/C pilots to night FAC(A) procedures in a low threat environment.

Requirement. Perform visual reconnaissance of three separate targets on a tactical range. Plot targets on a 1:50,000 map and prepare target briefs. Control four separate attacks by attack aircraft utilizing low threat tactics. Use appropriate CAS briefing and control procedures. Perform authentication procedures. Deliver or coordinate marking rounds on target. Demonstrate the ability to provide timely, accurate corrections for CAS aircraft, and the ability to provide talk-ons. Provide BDA. Four controls required for completion.

Mission Performance Standards

- (a) Locates targets and plots with an error less than 300 meters.
- (b) Provides accurate verbal description during talk-on attacks.
- (c) Marks the target with a CEP less than 300 meters.

- (d) Visually acquires CAS assets and provides timely control and corrections.
- (e) Acquire target on FLIR and maintain laser illumination until CAS weapon impact plus 5 seconds.
- (f) Correctly coordinates timing and location of battlefield illumination.

Prerequisite. FAC(A)-480.

Ordnance. 7 2.75-inch WP rockets, 20 chaff, and 10 flares, 4 LUU-2/19.

External Syllabus Support. Designated FA-18D FAC(A)I escort required. Two fixed wing LDT capable CAS sections. Ground FAC.

6. Field Carrier Landing Practice/Expeditionary Qualification (FCLP/EQ)

- a. Purpose. To practice for carrier operations or qualify for EAF operations.
- b. General. Each FCLP simulator is a prerequisite for the corresponding training flight when qualification is aboard a CV. Each FCLP flight is a training flight for CV qualification in the 600 Level.
- c. Ground Training. IAW LSO NATOPS.
- d. Simulator Training. (1 Period, 1.0 Hour).

SFCLP/SEQ-490 1.0 R WTT S

Goal. Conduct simulated carrier landings using Case I and Case III procedures. Emphasize pattern procedures, landing technique, deck procedures, and emergency procedures.

Requirement. Perform Case I and two Case III recoveries to multiple carrier landings. Four passes required for completion. Simulator must be monitored by an LSO.

External Syllabus Support. LSO.

- e. Flight Training. (2 Flights, 2.6 Hours).

FCLP/EQ-491 1.3 R 1 FA-18A/C/D A

Goal. Practice day FCLP procedures or qualify for day expeditionary landing operations.

Requirement. For FCLPs perform touch and go's under the control of an LSO. Six touch and go's required for completion. For EQ, perform four touch and go's, an arrested landing, and a launch from an expeditionary airfield.

Mission Performance Standards

- (a) Fly five Fair [(OK)] passes IAW LSO NATOPS Criteria.
- (b) Responds quickly and safely to all communications and communications out signals from LSO if required.

Prerequisite. SFCLP/SEQ-490.

Ordinance. None.

External Syllabus Support. LSO.

FCLP/EQ-492 1.3 R 1 FA-18A/C/D A N

Goal. Practice night FCLP procedures or qualify for night expeditionary landing operations.

Requirement. For FCLPs perform touch and go's under the control of an LSO. Six touch and go's required for completion. For EQ, perform four touch and go's, an arrested landing, and a launch from an expeditionary airfield.

Mission Performance Standards

- (a) Fly five Fair [(OK)] passes IAW LSO NATOPS Criteria.
 - (b) Responds quickly and safely to all communications and communications out signals from LSO if required.
- Prerequisite. FCLP/EQ-491.

Ordinance. None.

External Syllabus Support. LSO.

140. 500 LEVEL INSTRUCTOR UNDER TRAINING (IUT)/SPECIFIC WEAPON DELIVERY (SWD) (FA-18A/C/D)

1. Instructor Under Training (IUT). IUT training shall be conducted in the FA-18 FRS using the CNO approved IUT syllabus.

2. Low Altitude Tactics Instructor (LATI)

a. Purpose. To certify an FA-18 Pilot as an instructor capable of safely conducting ground and airborne instruction of the FA-18 LAT flight syllabus.

b. General. Aircrew shall be LAT qualified and current prior to beginning this stage of training.

c. Academic Training. Refer to the MAWTS-1 Course Catalog.

d. Simulator Training. (1 Period, 1.0 Hour).

SLATI-510 1.0 E WTT S

Goal. Develop proficiency in briefing, performing, chasing basic LAT procedures from the WTT console, and debriefing LAT tactics, techniques, and procedures.

Requirement. Reference the MAWTS-1 Course Catalog for the LATI POI.

e. Flight Training. (3 Flights, 3.9 Hours)

LATI-511 1.3 E 2 FA-18A/C/D A

Goal. Develop proficiency in briefing, performing, chasing, and debriefing advanced LAT procedures.

Requirement. Reference the MAWTS-1 Course Catalog for the LATI POI.

LATI-512 1.3 E 2 FA-18A/C/D A

Goal. Develop proficiency in briefing, performing, chasing, and debriefing advanced LAT procedures completed on a tactical LAT circuit.

Requirement. Reference the MAWTS-1 Course Catalog for the LATI POI.

LATI-513 1.3 E 2 FA-18A/C/D A

Goal. Develop proficiency in briefing, performing, chasing, and debriefing advanced LAT procedures completed as a section on a tactical LAT circuit.

Requirement. Reference the MAWTS-1 Course Catalog for the LATI POI.

3. Air Combat Tactics Instructor (ACTI)

a. Purpose. To certify FA-18 aircrew as instructors capable of safely conducting ground and airborne instruction of the FA-18 BFM and ACM flight syllabus.

b. General. Aircrew shall be ACM qualified. Pilots shall be a designated section lead and WSOs shall be of equivalent experience level.

c. Academic Training. Refer to the MAWTS-1 Course Catalog.

d. Simulator Training. None.

e. Flight Training. (3 Flights, 3.9 hours).

ACTI-520 1.3 E 2 FA-18A/C/D A

Goal. Demonstrate proficiency in briefing, executing, and debriefing BFM at an instructor level. Emphasize flight leadership, execution, and instructional techniques.

Requirement. Reference the MAWTS-1 Course Catalog for the ACTI POI.

ACTI-521 1.3 E 2 FA-18A/C/D A

Goal. Demonstrate proficiency in briefing, executing, and debriefing section engaged maneuvering at an instructor level. Emphasize flight leadership, execution, and instructional techniques.

Requirement. Reference the MAWTS-1 Course Catalog for the ACTI POI.

ACTI-522 1.3 E 2 FA-18A/C/D A

Goal. Demonstrate proficiency in briefing, executing, and debriefing section tactics at an instructor level. Emphasize flight leadership, execution, and instructional techniques.

Requirement. Reference the MAWTS-1 Course Catalog for the ACTI POI.

4. Night System Instructor (NSI)

a. Purpose. To certify an FA-18 aircrew as an instructor capable of safely conducting ground and airborne instruction of the FA-18 night systems flight syllabus.

b. General. Aircrew shall be NS Low qualified. Pilots shall be a designated division lead and WSOs shall be of equivalent experience level.

c. Academic Training. Refer to the MAWTS-1 Course Catalog.

d. Simulator Training. None.

e. Flight Training. (3 flights, 3.9 hours).

NSI-530 1.3 E 2 FA-18A/C/D A NS

Goal. Demonstrate proficiency in briefing, instructing, executing, and debriefing a formation and air-to-air intercept mission emphasizing night systems management and section operations with NVDs.

Requirement. Reference the MAWTS-1 Course Catalog for the NSI POI.

NSI-531 1.3 E 2 FA-18A/C/D A NS

Goal. Demonstrate tactical proficiency in planning, briefing, instructing, executing, and debriefing a night Air Interdiction mission in a medium to high threat environment that includes an air-to-air threat. Emphasize mission planning, attack parameters, self-escort fighter game plan, delivery modes, formation considerations, and target acquisition methods using NVDs.

Requirement. Reference the MAWTS-1 Course Catalog for the NSI POI.

NSI-532 1.3 E 2 FA-18A/C/D A NS

Goal. Demonstrate proficiency in briefing, instructing, chasing, and debriefing basic night LAT maneuvers and section LAT target attacks.

Requirement. Reference the MAWTS-1 Course Catalog for the NSI POI.

5. Forward Air Controller (Airborne) Instructor [FAC(A)I]

a. Purpose. To certify FA-18 aircrew as a FAC(A)I capable of conducting ground and airborne instruction of the FAC(A) mission and capable of safely controlling CAS in close proximity to friendly troops. Emphasize demonstration of ability to coordinate simultaneous FW and RW CAS, artillery, or NSFS, while working for a TACP and operating with a MACCS.

b. General. Pilots shall be a designated division lead and WSOs shall be of equivalent experience level.

- c. Academic Training. Refer to the MAWTS-1 Course Catalog.
- d. Simulator Training. None.
- e. Flight Training. (3 flights, 3.9 hours).

FAC(A)I-540 1.3 E 2 FA-18D A (NS)

Goal. Demonstrate proficiency in briefing, instructing, executing, and debriefing FAC(A) procedures in a low threat environment.

Requirement. Reference the MAWTS-1 Course Catalog for the FAC(A)I POI.

FAC(A)I-541 1.3 E 2 FA-18D A (NS)

Goal. Demonstrate proficiency in briefing, instructing, executing, and debriefing FAC(A) procedures in a med/high threat environment.

Requirement. Reference the MAWTS-1 Course Catalog for the FAC(A)I POI.

FAC(A)I-542 1.3 E 2 FA-18D A NS

Goal. Demonstrate proficiency in briefing, instructing, executing, and debriefing night FAC(A) procedures in a low or med/high threat environment.

Requirement. Reference the MAWTS-1 Course Catalog for the FAC(A)I POI.

6. Tactical Air Coordinator (Airborne) Instructor [TAC(A)I]

a. Purpose. To certify an FA-18D aircrew as a TAC(A)I capable of conducting ground and airborne instruction of the TAC(A) mission. Emphasize ability to coordinate with the GCE, coordinate mission assignments with the DASC and TACPs, and airspace management.

b. General. Pilots shall be a designated division lead and WSOs shall be of equivalent experience level.

- c. Academic Training. Refer to the MAWTS-1 Course Catalog.
- d. Simulator Training. None.
- e. Flight Training. (1 flight, 1.3 hours).

TAC(A)I-550 1.3 E 2 FA-18D A (NS)

Goal. Demonstrate proficiency in briefing, instructing, executing, and debriefing TAC(A) in a MAGTF/combined operations scenario in a med/high threat environment.

Requirement. Reference the MAWTS-1 Course Catalog for the TAC(A)I POI.

7. Aerial Specific Weapons Delivery (ASWD)

a. Purpose. To track proficiency in air-to-air gunnery and air-to-air missile employment.

b. General

(1) Emphasize safe and effective employment of air-to-air weapons system.

(2) Since air-to-air weapons employment involves live firing, flight leads, lead safes, and tractor aircrew will closely monitor aircrew for any unsafe tendencies.

(3) Due to the dynamic nature of employing air-to-air weapons systems, commanding officers will ensure each ASWD brief includes detailed discussion of avoiding airborne debris and towed targets after air-to-air weapons employment.

(4) In order to perform proper post flight analysis, all aircraft participating in ASWD sorties require operable VTR/CVRS.

c. Academic Training. None.

d. Simulator Training. None.

e. Flight Training. (2 Flights, 2.6 Hours).

ASWD-560 1.3 1+ FA-18A/C/D A

Goal. Introduce aerial gunnery (circular pattern). Emphasize pattern procedures, pipper control, firing technique, and postflight analysis.

Requirement. Conduct a dry or live fire aerial gunnery pattern. Eight runs on a maneuvering or non-maneuvering banner/dart required for completion.

Prerequisite. None.

Mission Performance Standards

- (a) Able to achieve 10% hits.
- (b) Flies a consistent pattern.
- (c) Responds to range safety officer commands.

Ordinance. 500 rds of 20 mm.

External Syllabus Support. One banner/dart tow aircraft, live aerial gunnery range.

ASWD-561 1.3 2 FA-18A/C/D A

Goal. Practice aerial gunnery (forward quarter pattern) and evaluate firing technique.

Requirement. Conduct live fire aerial gunnery (forward quarter pattern). Eight runs on a maneuvering or non-maneuvering banner/dart required for completion.

Mission Performance Standards

- (a) Able to achieve 10% hits.
- (b) Flies a consistent pattern.
- (c) Responds to range safety officer commands.

Prerequisite. ASWD-560 completed.

Ordnance. 500 rds of 20 mm.

External Syllabus Support. One banner/dart tow aircraft, live aerial gunnery range.

ASWD-562

1.3 2 FA-18A/C/D A

Goal. Track proficiency in employment of an AIM-9.

Requirement. Fire an AIM-9 against an airborne target.

Prerequisite. None.

Ordnance. 1 AIM-9M.

External Syllabus Support. Missile test range and airspace control agency. Surface search and aerial search radar platform, (EP-3, E-2C, etc). One BQM, AQM, or TALD with IR augmentation package.

ASWD-563

1.3 2 FA-18A/C/D A

Goal. Track proficiency in employment of an AIM-7.

Requirement. Fire an AIM-7 against an airborne target.

Prerequisite. None.

Ordnance. 1 AIM-7M/H.

External Syllabus Support. Missile test range and airspace control agency. Surface search and aerial search radar platform, (EP-3, E-2C, etc). One BQM, AQM, or TALD with radar augmentation package.

ASWD-564

1.3 2 FA-18A/C/D A

Goal. Track proficiency in employment of an AIM-120.

Requirement. Fire an AIM-120 against an airborne target.

Prerequisite. None.

Ordnance. 1 AIM-120A/B/C.

External Syllabus Support. Missile test range and airspace control agency. Surface search and aerial search radar platform, (EP-3, E-2C, etc). One BQM, AQM, or TALD with radar augmentation package.

8. Surface Specific Weapons Delivery (SSWD)

- a. Purpose. To track SSWD.

b. General

(1) These events are to be used for tracking purposes only.

(2) No CRP is assigned to these sorties.

(3) Other training codes in the 200, 300, and 400 levels should be logged, in addition to the 500 level code, for core skill proficiency or CRP increase.

c. Academic Training. None.

d. Simulator Training. None.

e. Flight Training. (19 Flights, 22.7 Hours).

SSWD-570 1.3 2 FA-18A/C/D A (N)

Goal. Track proficiency in dropping live MK-82, 83, or 84 bombs.

Requirement. Must drop one bomb for completion.

Prerequisite. None.

Ordnance. At least one MK-82, 83, or 84 bomb.

External Syllabus Support. Live ordnance range.

SSWD-571 1.3 2 FA-18A/C/D A (NS)

Goal. Track proficiency in firing the M61A1 20mm Gun at a surface target.

Requirement. Must successfully employ the gun on two separate runs against a surface target for completion.

Prerequisite. None.

Ordnance. At least 250 rnds 20mm.

External Syllabus Support. Live strafing range.

SSWD-572 1.3 2 FA-18A/C/D A (NS)

Goal. Track proficiency in dropping live or inert CBU-99/100 Rockeye.

Requirement. Drop one Rockeye for completion.

Prerequisite. None.

Ordnance. At least one Rockeye.

External Syllabus Support. Live CBU range.

SSWD-573 1.3 2 FA-18A/C/D A (NS)

Goal. Track proficiency in dropping MK-77 Napalm Canister munition.

Requirement. Drop one MK-77 Napalm Canister for completion.

Prerequisite. None.

Ordnance. At least one MK-77 Napalm Canister.

External Syllabus Support. Live ordnance range.

SSWD-574

1.3 2 FA-18A/C/D A (NS)

Goal. Track proficiency in shooting live or inert 5.0" or 2.75" rockets.

Requirement. Shoot one pod of rockets for completion.

Prerequisite. None.

Ordnance. At least four 5" or seven 2.75" rocket.

External Syllabus Support. Live or inert ordnance range.

SSWD-575

1.3 2 FA-18A/C/D A N (NS)

Goal. Track proficiency in employing battlefield illumination.

Requirement. Shoot two illumination rockets or drop two LUU-2/19 flares for completion.

Prerequisite. None.

Ordnance. At least four 5" or seven 2.75" illumination rockets and/or 4 LUU-2/19.

External Syllabus Support. Inert ordnance range.

SSWD-576

1.3 2 FA-18C/D A (NS)

Goal. Track proficiency in captive carry AGM-65F IR Maverick employment.

Requirement. Functional captive AGM-65F IR Maverick.

Prerequisite. None.

Ordnance. At least one captive AGM-65F IR Maverick.

External Syllabus Support. None.

SSWD-577

1.3 2 FA-18C/D A (NS)

Goal. Track proficiency in captive carry AGM-65E LASER Maverick employment.

Requirement. Functional captive AGM-65E LASER Maverick.

Prerequisite. None.

Ordnance. At least one captive AGM-65E LASER Maverick.

External Syllabus Support. None.

SSWD-578

1.3 2 FA-18C/D A (NS)

Goal. Track proficiency in shooting the AGM-65F IR Maverick.

Requirement. Must shoot one AGM-65F IR Maverick.

Prerequisite. None.

Ordnance. At least one AGM-65F IR Maverick.

External Syllabus Support. Live Surface-to-Air missile range.

SSWD-579

1.3 2 FA-18C/D A (NS)

Goal. Track proficiency in shooting AGM-65E LASER Maverick.

Requirement. Must shoot one AGM-65E LASER Maverick.

Prerequisite. None.

Ordnance. At least one AGM-65E LASER Maverick.

External Syllabus Support. Live Surface-to-Air missile range that is laser safe.

SSWD-580

1.3 2 FA-18C/D A (NS)

Goal. Track proficiency in dropping laser guided bombs.

Requirement. Must drop one GBU-10, 12, 16 or 24, or an LGTR for completion.

Prerequisite. None.

Ordnance. At least one GBU-10, 12, 16, 24 or an LGTR.

External Syllabus Support. Live or inert ordnance range, laser safe range.

SSWD-581

1.3 2 FA-18C/D A (NS)

Goal. Track proficiency in captive carry of a JDAM.

Requirement. Captive carry one JDAM.

Prerequisite. None.

Ordnance. One captive JDAM.

External Syllabus Support. None.

SSWD-582

1.3 2 FA-18C/D A (NS)

Goal. Track proficiency in delivering JDAM.

Requirement. Deliver one JDAM.

Prerequisite. None.

Ordnance. One JDAM.

External Syllabus Support. Live ordnance range.

SSWD-583

1.3 2 FA-18C/D A (NS)

Goal. Track proficiency in captive carry of a JSOW.

Requirement. Captive carry one JSOW.

Prerequisite. None.

Ordnance. One captive JSOW.

External Syllabus Support. None.

SSWD-584

1.3 2 FA-18C/D A (NS)

Goal. Track proficiency in delivering JSOW.

Requirement. Deliver one JSOW.

Prerequisite. None.

Ordnance. One JSOW.

External Syllabus Support. Live ordnance range.

SSWD-585

1.3 2 FA-18C/D A (NS)

Goal. Track proficiency in captive carry of AGM-88 HARM.

Requirement. Functional captive AGM-88 HARM.

Prerequisite. None.

Ordnance. At least one captive AGM-88 HARM.

External Syllabus Support. None.

SSWD-586

1.3 2 FA-18C/D A (NS)

Goal. Track proficiency in shooting the AGM-88 HARM.

Requirement. Shoot one AGM-88 HARM.

Prerequisite. None.

Ordnance. At least one AGM-88 HARM.

External Syllabus Support. Live Air-to-Surface missile range with a range safety officer, emitter on the range.

SSWD-587

1.3 2 FA-18C/D A (NS)

Goal. Track proficiency in shooting the SLAM(ER).

Requirement. Shoot one SLAM(ER).

Prerequisite. None.

Ordnance. At least one SLAM(ER).

External Syllabus Support. Live Air-to-Surface missile range with a range safety officer.

SSWD-588 1.3 2 FA-18A/C/D A (NS)

Goal. Track proficiency in dropping a TALD.

Requirement. Drop one TALD.

Prerequisite. None.

Ordnance. At least one TALD

External Syllabus Support. Inert or live ordnance range.

9. External Syllabus Support Non-Availability Tracking (TRK)

a. Purpose. To track non-availability of external syllabus support requirements.

b. General. In the event that ordnance or dissimilar adversary support (as required in the external syllabus support specific sortie description) is not available, the following tracking (TRK) codes shall be logged in addition to the syllabus event code.

TRK-598 NA FA-18A/C/D A

Goal. To track the non-availability of ordnance (as required in the external syllabus support specific sortie description).

Requirement. Every attempt shall be made to comply with the specific sortie descriptions and ordnance requirements. Upon successful completion of the training event, log the specific sortie training code in addition to TRK-598.

Prerequisite. Required ordnance is not available.

TRK-599 NA FA-18A/C/D A

Goal. To track the non-availability of dissimilar adversaries (as required in the external syllabus support specific sortie description).

Requirement. Every attempt shall be made to comply with the specific sortie descriptions and dissimilar adversary requirements. Upon successful completion of the training event, log the specific sortie training code in addition to TRK-599.

Prerequisite. Required dissimilar adversary support is not available.

150. 600 LEVEL REQUIRED EVENTS (RQD)/QUALIFICATIONS (QUAL)/DESIGNATIONS (DESG) (FA-18A/C/D)

1. Required Events (RQD)

a. Purpose. To track training codes associated with required evaluations and flight leadership proficiency.

b. General

(1) E-coded sorties are evaluation sorties. CRP is not awarded for these 600-level sorties. However, CRP credit may be obtained by logging the appropriate training code(s) in the 200-400 level syllabus.

(2) Flight Leadership proficiency tracking codes (RQD-505-507) shall be logged in conjunction with the appropriate 200-400 level event training code every time an aircrew flies an event as a designated section lead, division lead, or mission commander.

c. Academic Training. None.

d. Simulator Training. (2 Periods, 2.0 Hours).

e. Flight Training. (6 Flights, 7.8 Hours).

RQD-600 1.3 E 1 FA-18A/C/D WTT/OFT A/S

Goal. Demonstrate proficiency flying an annual NATOPS check.

Requirement. Successfully conduct the check IAW applicable directives.

Performance Standards. IAW the FA-18 NATOPS.

Prerequisites. See current version of OPNAV 3710.

Ordnance. None.

External Syllabus Support. None.

RQD-601 1.3 E 1 FA-18A/C/D WTT/OFT A/S (N)

Goal. Demonstrate proficiency flying an annual instrument check.

Requirement. Successfully conduct the evaluation IAW applicable directives.

Performance Standards. IAW NATOPS and OPNAV 3710.

Prerequisites. None.

Ordnance. None.

External Syllabus Support. None.

SRQD-602 1.0 E WTT/OFT S

Goal. Demonstrate proficiency in executing ground and airborne emergency procedures.

Requirement. Successfully execute the procedures for one ground emergency and two airborne emergencies, at a minimum.

Performance Standards

- (a) Executes the correct "boldface" NATOPS procedures.
- (b) Makes appropriate flight leadership decisions.

Prerequisites. None.

Ordnance. None.

External Syllabus Support. None.

RQD-603

1.3 1+ FA-18A/C/D A (N)

Goal. Track proficiency in day or night strategic aerial refueling.

Requirement. Two day contacts or two night contacts required for completion.

Prerequisite. None.

Ordnance. None.

External Syllabus Support. One KC-135 or KC-10 tanker.

SRQD-604

1.0 E WTT/OFT S

Goal. Introduce and demonstrate techniques and procedures associated with the Functional Check Flight (FCF).

Requirement. Simulator shall be used under the supervision of a designated FCF pilot. All portions of the FCF checklist shall be reviewed during the simulator period.

Performance Standards. None.

Prerequisites. None.

Ordnance. None.

External Syllabus Support. None.

RQD-605

1.3 R 1+ FA-18A/C/D A

Goal. Track section lead proficiency.

Requirement. To maintain proficiency as a section lead a pilot shall brief, lead, and debrief the designated event in accordance with the mission performance standards for that event.

Prerequisite. Designated section leader.

Ordnance. None.

External Syllabus Support. None.

RQD-606 1.3 R 1+ FA-18A/C/D A

Goal. Track division lead proficiency.

Requirement. To maintain proficiency as a division lead a pilot shall brief, lead, and debrief the designated event in accordance with the mission performance standards for that event.

Prerequisite. Designated division leader.

Ordnance. None.

External Syllabus Support. None.

RQD-607 1.3 R 1+ FA-18A/C/D A

Goal. Track mission commander proficiency.

Requirement. To maintain proficiency as a mission commander aircrew shall brief, lead, and debrief the designated event in accordance with the mission performance standards for that event.

Prerequisite. Designated mission commander.

Ordnance. None.

External Syllabus Support. None.

2. Qualification Events (QUAL)

a. Purpose. To track training codes associated with qualifications.

b. General. E-coded sorties are evaluation sorties. E-coded sorties in the 600-level phase may be logged in conjunction with any sortie that completes its stage. For example, RQD-610 may be flown in conjunction with LAT-208. CRP is not awarded for these 600-level sorties. However, CRP credit may be obtained by logging the appropriate training code(s) in the 200-400 level syllabus. Once the flight to attain the qualification is complete, a letter from the squadron commanding officer awarding the qualification shall be placed in the NATOPS jacket and APR.

c. Academic Training. Refer to the MAWTS-1 Course Catalog.

d. Simulator Training. None.

e. Flight Training. (8 Flights, 10.4 Hours).

QUAL-610 1.3 R E 1+ FA-18A/C/D A

Goal. Tracking code for LAT qualification.

Requirement. Completion of LAT-208 meets the requirements for the PUI to be LAT qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as LAT qualified shall be placed in the NATOPS jacket.

Prerequisites. LAT-204-208.

- QUAL-613 1.3 R E 1+ FA-18A/C/D A
- Goal. Tracking code for day Carrier Qualification (CQ).
- Requirement. Completion of CQ-490 meets the requirements for the PUI to be day CQ. At the discretion of the squadron commanding officer a letter assigning the PUI as day CQ shall be placed in the NATOPS jacket.
- Prerequisites. SFCLP/SEQ-490, FCLP/EQ-491.
- QUAL-615 1.3 R E 1+ FA-18A/C/D A N
- Goal. Tracking code for night CQ.
- Requirement. Completion of night CQ IAW current Naval Instructions meet the requirements for the PUI to be night CQ. At the discretion of the squadron commanding officer a letter assigning the PUI as night CQ shall be placed in the NATOPS jacket.
- Prerequisites. SFCLP/SEQ-490, FCLP/EQ-491, QUAL-613.
- QUAL-616 1.3 E 2 FA-18A/C/D A
- Goal. Tracking code for ACM qualification.
- Requirement. Completion of ACM-245 meets the requirements for the PUI to be ACM qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as ACM qualified shall be placed in the NATOPS jacket.
- Prerequisites. BFM-230-236 and ACM 240-245.
- QUAL-619 1.3 E 2 FA-18D A
- Goal. Tracking code for FAC(A) qualification.
- Requirement. Completion of FAC(A)-387 meets the requirements for the PUI to be FAC(A) qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as FAC(A) qualified shall be placed in the NATOPS jacket.
- Prerequisites. FAC(A)-380-387.
- QUAL-621 1.3 E 2 FA-18A/C/D A NS
- Goal. Tracking code for NS HI qualification.
- Requirement. Completion of NS-214 meets the requirements for the PUI to be NSQ HI. At the discretion of the squadron commanding officer a letter assigning the PUI as NSQ HI shall be placed in the NATOPS jacket.
- Prerequisites. NS-209-214.
- QUAL-622 1.3 E 2 FA-18A/C/D A NS
- Goal. Tracking code for NSQ Low.

Requirement. Completion of NS-412 meets the requirements for the PUI to be NSQ Low. At the discretion of the squadron commanding officer a letter assigning the PUI as NSQ Low shall be placed in the NATOPS jacket.

Prerequisites. NSQ HI, NS-410-412.

QUAL-623 1.3 E FA-18D A

Goal. Tracking code for TAC(A) qualification.

Requirement. Completion of TAC(A)-391 meets the requirements for the PUI to be TAC(A) qualified. At the discretion of the squadron commanding officer a letter assigning the PUI as TAC(A) qualified shall be placed in the NATOPS jacket.

Prerequisites. FAC(A) qualified, TAC(A)-390, 391.

3. Flight Leadership IUT and Designation Sorties (DESG)

a. Purpose. To prepare and evaluate the IUT's ability to plan, brief and lead an event as a section lead, division lead, or mission commander.

b. General

(1) IUT shall conduct the following day and night workup sorties in order to develop the IUT's flight leadership. Completion of the IUT syllabus meets the requirements for the IUT to be designated as section leader, division leader, or mission commander. At the discretion of the squadron commanding officer, a letter designating the pilot as section leader, division leader, or mission commander shall be placed in the NATOPS jacket and APR. Re-designation will require successful completion of the evaluation event only, at the discretion of the commanding officer.

(2) IUT shall be complete with all 200 and 300 level events prior to beginning the section lead IUT syllabus (DESG-640-649).

(3) All section lead IUT events shall be evaluated by a designated division lead or higher.

(4) All division lead IUT events shall be evaluated by a designated mission commander.

(5) All mission commander IUT events shall be evaluated by a squadron WTI or commanding officer.

c. Academic Training. Refer to the MAWTS-1 Course Catalog for the appropriate flight leadership qualification academic syllabus.

d. Simulator Training. None.

e. Flight Training. (19 Flights, 24.7 Hours).

DESG-631 1.3 E 2 FA-18A/C/D A

Goal. Demonstrate proficiency in the execution of FCF checklist.

Requirement. Shall be flown with a designated FCF pilot in a chase aircraft during day VMC conditions. Completion of the FCF checklist.

Mission Performance Standards. Completion of the applicable FCF checklist.

Prerequisites. RQD-S604.

Ordinance. None.

External Support. None.

DESG-640

1.3 E 2 FA-18A/C/D A

Goal. Tracking code for section leader (IUT).

Requirement. Plan, brief, lead and debrief ACM-242 as a section lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated division lead or higher shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSS associated with ACM-242.

Prerequisites. 200 and 300 level events complete.

Ordinance. As required for ACM-242.

External Support. As required for ACM-242.

DESG-641

1.3 E 2 FA-18A/C/D A

Goal. Tracking code for section leader (IUT).

Requirement. Plan, brief, lead and debrief BFM-233 as a section lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated division lead or higher shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSS associated with BFM-233.

Prerequisites. 200 and 300 level events complete.

Ordinance. As required for BFM-233.

External Support. As required for BFM-233.

DESG-642

1.3 E 2 FA-18A/C/D A

Goal. Tracking code for section leader (IUT).

Requirement. Plan, brief, lead and debrief BFM-236 as a section lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated division lead or higher shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSS associated with BFM-236.

Prerequisites. 200 and 300 level events complete.

Ordinance. As required for BFM-236.

External Support. As required for BFM-236.

DESG-643

1.3 E 2 FA-18A/C/D A

Goal. Tracking code for section leader (IUT).

Requirement. Plan, brief, lead and debrief ACM-334 as a section lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated division lead or higher shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with ACM-334.

Prerequisites. 200 and 300 level events complete.

Ordinance. As required for ACM-334.

External Support. As required for ACM-334.

DESG-644

1.3 E 2 FA-18A/C/D A

Goal. Tracking code for section leader (IUT).

Requirement. Plan, brief, lead and debrief BAS-226 as a section lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated division lead or higher shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with BAS-226.

Prerequisites. 200 and 300 level events complete.

Ordinance. As required for BAS-226.

External Support. As required for BAS-226.

DESG-645

1.3 E 2 FA-18A/C/D A

Goal. Tracking code for section leader (IUT).

Requirement. Plan, brief, lead and debrief BAS-322 as a section lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated division lead or higher shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with BAS-322.

Prerequisites. 200 and 300 level events complete.

Ordinance. As required for BAS-322.

External Support. As required for BAS-322.

DESG-646

1.3 E 2 FA-18A/C/D A

Goal. Tracking code for section leader (IUT).

Requirement. Plan, brief, lead and debrief CAS-251 as a section lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated division lead or higher shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with CAS-251.

Prerequisites. 200 and 300 level events complete.

Ordinance. As required for CAS-251.

External Support. As required for CAS-251.

DESG-647

1.3 E 2 FA-18A/C/D A

Goal. Tracking code for section leader (IUT).

Requirement. Plan, brief, lead and debrief CAS-252 as a section lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated division lead or higher shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with CAS-252.

Prerequisites. 200 and 300 level events complete.

Ordinance. As required for CAS-252.

External Support. As required for CAS-252.

DESG-648

1.3 E 2 FA-18A/C/D A

Goal. Tracking code for section leader (IUT).

Requirement. Plan, brief, lead and debrief AR-261 as a section lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated division lead or higher shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with AR-261.

Prerequisites. 200 and 300 level events complete.

Ordinance. As required for AR-261.

External Support. As required for AR-261.

DESG-649

1.3 E 2 FA-18A/C/D A

Goal. Tracking code for section leader (DESG).

Requirement. Plan, brief, lead and debrief AI-370 as a section lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated division lead or higher shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with AI-370.

Prerequisites. DESG-640-648.

Ordinance. As required for AI-370.

External Support. As required for AI-370.

DESG-650

1.3 E 4 FA-18A/C/D A

Goal. Tracking code for division leader (IUT).

Requirement. Plan, brief, lead and debrief ACM-435 as a division lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated mission commander shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with ACM-435.

Prerequisites. None.

Ordinance. As required for ACM-435.

External Support. As required for ACM-435.

DESG-651

1.3 E 4 FA-18A/C/D A

Goal. Tracking code for division leader (IUT).

Requirement. Plan, brief, lead and debrief ACM-338 as a division lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated mission commander shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with ACM-338.

Prerequisites. None.

Ordinance. As required for ACM-338.

External Support. As required for ACM-338.

DESG-652

1.3 E 4 FA-18A/C/D A

Goal. Tracking code for division leader (IUT).

Requirement. Plan, brief, lead and debrief AR-461 as a division lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated mission commander shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with AR-461.

Prerequisites. None.

Ordinance. As required for AR-461.

External Support. As required for AR-461.

DESG-653 1.3 E 4 FA-18A/C/D A

Goal. Tracking code for division leader (IUT).

Requirement. Plan, brief, lead and debrief AI-372 as a division lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated mission commander shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with AI-372.

Prerequisites. None.

Ordnance. As required for AI-372.

External Support. As required for AI-372.

DESG-659 1.3 E 4 FA-18A/C/D A

Goal. Tracking code for division leader (DESG).

Requirement. Plan, brief, lead and debrief AI-470 as a division lead. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated mission commander shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with AI-470.

Prerequisites. DESG-650-653.

Ordnance. As required for AI-470.

External Support. As required for AI-470.

DESG-670 1.3 E 4+ FA-18A/C/D A

Goal. Tracking code for mission commander (IUT).

Requirement. Plan, brief, lead and debrief AI-471 as a mission commander. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated WTI or commanding officer shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with AI-471.

Prerequisites. None.

Ordnance. As required for AI-471.

External Support. As required for AI-471.

DESG-671 1.3 E 4+ FA-18A/C/D A

Goal. Tracking code for mission commander (IUT).

Requirement. Plan, brief, lead and debrief AI-472 as a mission commander. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated WTI or commanding officer shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with AI-472.

Prerequisites. None.

Ordnance. As required for AI-472.

External Support. As required for AI-472.

DESG-679 1.3 E 4+ FA-18A/C/D A

Goal. Tracking code for mission commander (DESG).

Requirement. Plan, brief, lead and debrief AI-472 as a mission commander. Upon successful completion of this event, the IUT shall log both training codes for tracking purposes. A designated WTI or commanding officer shall evaluate this event.

Mission Performance Standards. IUT shall successfully complete all MPSs associated with AI-472.

Prerequisites. DESG-670, 671.

Ordnance. As required for AI-472.

External Support. As required for AI-472.

4. Instructor Designation Tracking Codes (IDESG)

a. Purpose. To track training codes associated with Instructor Designations (IDESG).

b. General. Upon successful completion of the following MAWTS-1 instructor programs, WTI or NSAWC TOPGUN course, aircrew shall log the appropriate tracking codes.

IDESG-681 NA E FA-18A/C/D A

Goal. Tracking code for LAT(I) designation.

Requirement. Successfully complete the MAWTS-1 LAT(I) program.

Mission Performance Standards. Refer to MAWTS-1 Course Catalog.

Prerequisites. Refer to MAWTS-1 Course Catalog.

Ordnance. Refer to MAWTS-1 Course Catalog.

External Support. Refer to MAWTS-1 Course Catalog.

IDESG-683

NA E FA-18D A

Goal. Tracking code for FAC(A)I.

Requirement. Successfully complete the MAWTS-1 FAC(A)I program.

Mission Performance Standards. Refer to MAWTS-1 Course Catalog.

Prerequisites. Refer to MAWTS-1 Course Catalog.

Ordnance. Refer to MAWTS-1 Course Catalog.

External Support. Refer to MAWTS-1 Course Catalog.

IDESG-688

NA E FA-18A/C/D A

Goal. Tracking code for ACT(I).

Requirement. Successfully complete the MAWTS-1 ACT(I) program.

Mission Performance Standards. Refer to MAWTS-1 Course Catalog.

Prerequisites. Refer to MAWTS-1 Course Catalog.

Ordnance. Refer to MAWTS-1 Course Catalog.

External Support. Refer to MAWTS-1 Course Catalog.

IDESG-689

NA E FA-18D A

Goal. Tracking code for TAC(A)I.

Requirement. Successfully complete the MAWTS-1 TAC(A)I program.

Mission Performance Standards. Refer to MAWTS-1 Course Catalog.

Prerequisites. Refer to MAWTS-1 Course Catalog.

Ordnance. Refer to MAWTS-1 Course Catalog.

External Support. Refer to MAWTS-1 Course Catalog.

IDESG-696

NA FA-18A/C/D A

Goal. Tracking code for NSAWC TOPGUN course completion.

Requirement. Successfully complete the NSAWC TOPGUN course.

Mission Performance Standards. None.

Prerequisites. None.

Ordnance. None.

External Support. None.

IDESG-697

NA FA-18A/C/D A

Goal. Tracking code for MAWTS-1, Marine Division Tactics Course (MDTC) completion.

Requirement. Successfully complete the MAWTS-1 MDTC.

Mission Performance Standards. Refer to MAWTS-1 Course Catalog.

Prerequisites. Refer to MAWTS-1 Course Catalog.

Ordnance. Refer to MAWTS-1 Course Catalog.

External Support. Refer to MAWTS-1 Course Catalog.

IDESG-698

NA E FA-18A/C/D A NS

Goal. Tracking code for NSI.

Requirement. Successfully complete the MAWTS-1 NSI program.

Mission Performance Standards. Refer to MAWTS-1 Course Catalog.

Prerequisites. Refer to MAWTS-1 Course Catalog.

Ordnance. Refer to MAWTS-1 Course Catalog.

External Support. Refer to MAWTS-1 Course Catalog.

IDESG-699

NA FA-18A/C/D A

Goal. Tracking code for MAWTS-1, WTI course completion.

Requirement. Successfully complete the MAWTS-1 Weapons and Tactics Instructor WTI course.

Mission Performance Standards. Refer to MAWTS-1 Course Catalog.

Prerequisites. Refer to MAWTS-1 Course Catalog.

Ordnance. Refer to MAWTS-1 Course Catalog.

External Support. Refer to MAWTS-1 Course Catalog.

160. EXPENDABLE ORDNANCE REQUIREMENTS

1. General. Ordnance requirements are developed on a per aircrew basis as outlined in OPNAVNOTE 8010.

a. Support sortie ordnance requirements are not included in this table.

b. The required ordnance in this table is based on a single aircrew attaining initial competency in every event in the 200, 300, 400, and 500 Levels. It does not reflect maintenance of proficiency in accordance with the re-fly interval.

c. Once initial competency has been attained in an event with the required ordnance (per the sortie description), inert ordnance may be substituted for live ordnance.

d. FA-18A/C/D

<u>ORDNANCE</u>	<u>200</u>	<u>300</u>	<u>400</u>	<u>500</u>	<u>TOTAL</u>
BDU-48	6				66
MK-76	84	18	12		114
BDU-45	4	8			12
MK-83 (INERT)		4			4
LGTR	6	2	6		14
MK-82	16	4	4	1	25
MK-83	8	4		1	13
MK-84				1	1
GBU-10/12/16		3		1	4
CBU-99/100	4		4	1	9
2.75" ROCKET	0	49	14	7	70
MK-77				1	1
JDAM				1	1
JSOW				1	1
AGM-88				1	1
SLAM(ER)				1	1
20 MM	1750	1000	500	1250	4500
LUU-2/19		32	4	4	40
AGM-65E				1	1
AGM-65F				1	1
AIM-9				1	1
AIM-7				1	1
AIM-120				1	1
CHAFF	540	410	240		1190
FLARES	425	390	150		965
TALD				1	1

161. CAPTIVE ORDNANCE REQUIREMENTS

1. General. The required captive ordnance in this table is based on a single aircrew attaining initial competency in every event in the 200, 300, 400, and 500 Levels. It does not reflect the maintaining of proficiency in accordance with the refly interval.

a. FA-18A/C/D

<u>CAPTIVE ORDNANCE</u>	<u>200</u>	<u>300</u>	<u>400</u>	<u>500</u>	<u>TOTAL</u>
HARM		1	2	1	4
AGM-65E	2	2	2	1	7
AGM-65F	2	2	2	1	7
JDAM				1	1
JSOW				1	1
AIM-7/120	6	8	7		21
AIM-9	13	10	7		30

162. GROUND ORDNANCE REQUIREMENTS. The required ground ordnance in this table is based on a single aircrew attaining initial competency in every event in the 200, 300, and 400 Levels. It does not reflect maintenance of proficiency in accordance with the refly interval.

ORDNANCE	200	300	400	TOTAL
HE Artillery	8	60	12	80
WP Artillery	4	32	12	48
Ill. Artillery	0	32	4	36

170. REFLY INTERVAL, CRP, AND CHAINING TABLES

1. Purpose. To provide a quick reference guide for refly interval, CRP, chaining, evaluated events, refresher events, and night or night systems requirements.

FA-18A/C/D 200 LEVEL TRAINING															
STAGE	TRAINING CODE	SORTIE DESCRIPTION	FLIGHT HRS	SIMULATOR HRS	REFLY FA-18A/C	CRP FA-18A/C	REFLY FA-18D	CRP FA-18D	REFRESHER	CHAINING	EVAL	NIGHT	NIGHT SYSTEMS	AC / SIM	MIN # OF AC
AAR	200	DAY AAR	1.3		180	0.3	180	0.3	X					A	1
AAR	201	NIGHT AAR	1.3		365	0.3	365	0.3		200		N	(NS)	A	1
Sub Total			2.6			0.6		0.6							
STRXN	202	HI/MED ALT TRXN SIM		1.0	365	0.0	365	0.0	X					S	
TRXN	203	HI/MED ALT TRXN	1.3		365	0.4	365	0.4		202			(NS)	A	2
Sub Total			1.3	1.0		0.4		0.4							
SLAT	204	2D/3D LAT SIM		1.0	*	0.0	*	0.0	X					S	
LAT	205	2D BASIC LAT WU	1.3		*	0.2	*	0.2						A	2
LAT	206	3D ADVANCED LAT	1.3		*	0.2	*	0.2						A	2
LAT	207	SEC LAT TRXN	1.3		*	0.2	*	0.2						A	2
LAT	208	LAT REVIEW (LATQ)	1.3		180	0.4	180	0.4	X		X			A	2
Sub Total			5.2	1.0		1.0		1.0							
SNS	209	FAM / FORM SIM		1.0	*	0.0	*	0.0					NS	S	
NS	210	FAM / FORM	1.3		180	0.2	*	0.2	X				NS	A	2
NS	211	2V2 INTERCEPTS	1.3		*	0.2	*	0.2					NS	A	2
NS	212	HI/MED ANGLE DIVE	1.3		*	0.2	*	0.2					NS	A	2
NS	213	SEC HI/MED DIVE	1.3		*	0.2	*	0.2					NS	A	2
NS	214	SEC LOW LEVEL NSQ HI	1.3		*	0.2	*	0.2			X		NS	A	2
Sub Total			6.5	1.0		1.0		1.0							
SBAS	220	FLIR / LDT SIM		1.0	365	0.2	365	0.2	X					S	
BAS	221	SEC LOW LEVEL NAV	1.3		365	0.2	365	0.2					(NS)	A	2
BAS	222	LO/MED/HI ANGLE DIVE	1.3		180	0.4	180	0.4	X			N	(NS)	A	2+
BAS	223	LO/HI ANGLE POP DEL	1.3		180	0.4	180	0.4						A	2+
BAS	224	FLIR DELIVERIES	1.3		180	0.4	180	0.4		220			(NS)	A	2+
BAS	225	LDT DELIVERIES	1.3		180	0.4	180	0.4		220		(N)	(NS)	A	2+
BAS	226	SEC MED/HI ANGLE DIVE	1.3		180	0.5	180	0.5	X	210,222			NS	A	2+
BAS	227	HI ALT FLIR DELIVERIES	1.3		180	0.5	180	0.5		210,220,224			NS	A	2+
BAS	228	SEC LO/HI ANGLE POP	1.3		180	0.5	180	0.5	X	223	X		(NS)	A	2
Sub Total			10.4	1.0		3.5		3.5							
BFM	230	1V1 ROLLER / FLAT	1.3		90	0.4	180	0.3	X					A	2
BFM	231	1V1 OBFM	1.3		90	0.4	180	0.4						A	2
BFM	232	1V1 DBFM	1.3		90	0.4	180	0.4						A	2
BFM	233	1V1 NEUTRAL / FQMD	1.3		90	0.4	180	0.4	X					A	2
BFM	234	1V1 DISSIMILAR	1.3		180	0.5	*	0.2		233				A	1
BFM	235	2V1 VIS SETS	1.3		365	0.4	*	0.2						A	2
BFM	236	2V2 VIS SETS (DISSIM)	1.3		180	0.5	180	0.5	X	235				A	2
Sub Total			9.1	0.0		3.0		2.4							
SACM	240	RADAR MECH SIM		1.0	*	0.0	*	0.0						S	
SACM	241	SRR SIM		1.0	365	0.0	365	0.0	X					S	
ACM	242	1V1 INTERCEPTS	1.3		*	0.2	*	0.2					(NS)	A	2
ACM	243	2V2 VID (MAN/NON-MAN)	1.3		180	0.5	180	0.5	X					A	2
ACM	244	2V2 PHID (DISSIMILAR)	1.3		180	0.5	180	0.5	X				(NS)	A	2
ACM	245	4VX OCA (ACM QUAL)	1.3		*	0.2	*	0.2			X		(NS)	A	4
Sub Total			5.2	2.0		1.4		1.4							

FA-18A/C/D 200 LEVEL TRAINING (con't)															
STAGE	TRAINING CODE	SORTIE DESCRIPTION	FLIGHT HRS	SIMULATOR HRS	REFLY FA-18A/C	CRP FA-18A/C	REFLY FA-18D	CRP FA-18D	REFRESHER	CHAINING	EVAL	NIGHT	NIGHT SYSTEMS	AC / SIM	MIN # OF AC
CAS	250	DAY LOW THREAT	1.3		180	0.5	180	0.5						A	2
CAS	251	DAY HIGH THREAT	1.3		90	0.5	90	0.5	X					A	2
CAS	252	NIGHT LOW THREAT	1.3		180	0.5	180	0.5	X	210,250			NS	A	2
Sub Total			3.9	0.0		1.5		1.5							
SAR	260	AGM-65E/F SIM		1.0	545	0.0	545	0.0						S	
AR	261	DAY SEC MED/HI ALT	1.3		180	0.5	180	0.4	X					A	2
AR	262	NIGHT SEC MED/HI ALT	1.3		180	0.6	180	0.4		210			(NS)	A	2
Sub Total			2.6	1.0		1.1		0.8							
AI	270	SEC AI (AGGRESSED)	1.3		180	0.5	180	0.5	X					A	2
AI	271	SEC AI (UNAGGRESSED)	1.3		180	0.5	180	0.5		210			NS	A	2
AI	272	DIV AI (UNAGGRESSED)	1.3		180	0.5	180	0.5						A	4
Sub Total			3.9	0.0		1.5		1.5							
TAR	280	EO / IR AR	1.3				180	0.3	X				(NS)	A	2
TAR	281	NIGHT SAR / IR AR	1.3				180	0.3		210			NS	A	2
TAR	282	DATALINK POST AI	1.3				180	0.3						A	2
Sub Total			3.9	0.0		0.0		0.9							
Sub Total															
Sub Total 200			54.6	7.0		15.0		15.0							
Total CRP 100			*	*		60.0		60.0							
Total			54.6	7.0		75.0		75.0							

FA-18A/C/D 300 LEVEL TRAINING															
STAGE	TRAINING CODE	SORTIE DESCRIPTION	FLIGHT HRS	SIM HRS	REFLY FA-18A/C	CRP FA-18A/C	REFLY FA-18D	CRP FA-18D	REFRESHER	CHAINING	EVAL	NIGHT	NIGHT SYSTEMS	AC / SIM	MIN # OF AC
SBAS	320	JDAM / JSOW SIM		1.0	365	0.7	365	0.6	X					S	
SBAS	321	HARM SIM		1.0	365	0.7	365	0.6	X					S	
BAS	322	BUDDY LASE/BOMB	1.3		180	0.8	180	0.7	X	220, 224			(NS)	A	2
BAS	323	LOW ANGLE/LOW DRAG	1.3		365	0.8	365	0.6					(NS)	A	2
BAS	324	RADAR DELIVERIES	1.3		365	0.8	365	0.5					(NS)	A	2+
BAS	325	FAC(A) ESCORT	1.3		365	0.8	365	0.5					(NS)	A	1
Sub Total			5.2	2.0		4.6		3.5							
SACM	330	BVR RADAR MECH SIM		1.0	180	0.5	365	0.5		240				S	
SACM	331	EA ENVIRONMENT SIM		1.0	180	0.8	180	0.6	X					S	
ACM	332	2VX OCA (SWEEP) BVR	1.3		180	0.8				244			(NS)	A	2
ACM	333	2VX OCA (ESCORT) VID	1.3		180	0.8	180	0.6	X	243				A	2
ACM	334	4/2VX DCA (POINT D) BVR	1.3		180	0.8	365	0.6	X	244			(NS)	A	4/2
ACM	335	4/2VX OCA (SCREEN) VID	1.3		180	0.8				243				A	4/2
ACM	336	4/2VX DCA (HVAAP) BVR	1.3		180	0.8				244			(NS)	A	4/2
ACM	337	4/2VX EA ENVIRONMENT	1.3		365	0.8				331			(NS)	A	4/2
ACM	338	4VX OCA (SES) VID/BVR	1.3		180	0.8	365	0.8		334, 244			(NS)	A	4
Sub Total			9.1	2.0		6.9		3.1							
SCAS	350	TYPE 2 CAS SIM		1.0	180	0.5	180	0.5						S	
CAS	351	LOW THREAT W/FAC(A)	1.3		180	0.8	180	0.8					NS	A	2
CAS	352	HIGH THREAT	1.3		180	0.8	180	0.8	X				NS	A	2
CAS	353	CAS IN URBAN ENVIRON.	1.3		365	0.8	365	0.8					(NS)	A	2
Sub Total			3.9	1.0		2.9		2.9							
AR	360	SEC MED/HI ALT (PGM)	1.3		180	0.8	180	0.8	X	261				A	2
AR	361	SEC MED/HI ALT (PGM)	1.3		180	0.8	180	0.8		262	X		NS	A	2
AR	362	SCAR	1.3		180	0.8	180	0.5		261			(NS)	A	2+
AR	363	ASSAULT SPT ESCORT	1.3		365	0.8	365	0.7					(NS)	A	2
Sub Total			5.2	0.0		3.2		2.8							
AI	370	SEC AI (AGGRESSED)	1.3		180	0.8	180	0.8		270			NS	A	2
AI	371	DIV AI (UNAGGRESSED)	1.3		180	0.8	180	0.8		271			NS	A	4
AI	372	DIV AI (AGGRESSED)	1.3		180	0.8	180	0.8	X	270,272				A	4
Sub Total			3.9	0.0		2.4		2.4							
FAC(A)	380	LOW THREAT	1.3				180	0.5		362,261			(NS)	A	1
FAC(A)	381	MED/HI THREAT CFF	1.3				180	0.6	X				(NS)	A	1
FAC(A)	382	DAY CFF	1.3				365	0.5	X					A	1
FAC(A)	383	NIGHT CFF	1.3				365	0.6		382			NS	A	1
FAC(A)	384	RW FAC(A)	1.3				365	0.6					(NS)	A	1
FAC(A)	385	NIGHT LOW THREAT	1.3				180	0.6	X				NS	A	1
FAC(A)	386	NIGHT MED/HI THREAT	1.3				180	0.6					NS	A	1
FAC(A)	387	TGT AREA INT (FACAQ)	1.3				365	0.6			X		(NS)	A	1
Sub Total			10.4	0.0		0.0		4.6							
TAC(A)	390	TAC(A) INTRO	1.3				545	0.3	X				(NS)	A	1
TAC(A)	391	MULTI- AGENCY (TACAQ)	1.3				545	0.4		390	X		(NS)	A	1
Sub Total			2.6	0.0		0.0		0.7							
			FLIGHT HOURS	SIM HOURS		CRP		CRP							
Sub Total 300			40.3	5.0		20.0		20.0							
Total 200			54.6	8.0		75.0		75.0							
Total 200 & 300			97.5	13.0		95.0		95.0							

FA-18A/C/D 400 LEVEL TRAINING															
STAGE	TRAINING CODE	SORTIE DESCRIPTION	FLIGHT HRS	SIMULATOR HRS	REFLY FA-18A/C	CRP FA-18A/C	REFLY FA-18D	CRP FA-18D	REFRESHER	CHAINING	EVAL	NIGHT	NIGHT SYSTEMS	AC / SIM	MIN # OF AC
NS	410	SEC LOW LEVEL/TGT ATTK	1.3		*	0.2	*	0.2					NS	A	2
NS	411	SINGLE SHIP LAT CHASED	1.3		*	0.2	*	0.2					NS	A	2
NS	412	SEC LAT TGT ATTK NSQ Low	1.3		365	0.4	365	0.4	X		X		NS	A	2
Sub Total			3.9	0.0		0.8		0.8							
ACM	430	AA GUN PATTERN	1.3		730	0.4	730	0.4						A	1+
ACM	431	4/2VX PEACETIME ESC	1.3		545	0.3	545	0.3					(NS)	A	2
ACM	432	4/2VX HELO/PROP ATTK	1.3		545	0.3	545	0.3					(NS)	A	2
ACM	433	4VX OCA (SCREEN) VID	1.3		365	0.3	365	0.3		335,243			(NS)	A	4
ACM	434	4VX OCA (SWEEP) BVR	1.3		365	0.3	365	0.3		332,244			NS	A	4
ACM	435	4VX DCA (AREA DEF) BVR	1.3		365	0.3	365	0.3		334,244			NS	A	4
Sub Total			7.8	0.0		1.9		1.9							
AR	460	DIV MED/HI ALT W/ SCAR	1.3		365	0.3	365	0.3		360,261			(NS)	A	4
AR	461	DIV MED/HI ALT	1.3		365	0.3	365	0.3		361,262			NS	A	4
Sub Total			2.6	0.0		0.6		0.6							
AI	470	DIV AI (AGGRESSED)	1.3		365	0.5	365	0.5		370,270			NS	A	4
AI	471	MULTI-PLANE AI (AGRSD)	1.3		365	0.5	365	0.5		270				A	4+
AI	472	MULTI-PLANE AI (AGRSD)	1.3		545	0.5	545	0.5		470,371,272			NS	A	4+
Sub Total			3.9	0.0		1.5		1.5							
FAC(A)	480	DAY LOW THREAT	1.3		545	0.0								A	1
FAC(A)	481	NIGHT LOW THREAT	1.3		545	0.0							NS	A	1
Sub Total			2.6	0.0		0.0		0.0							
SFCLP	490	FCLP PROCEDURE SIM		1.0	*	0.0	*	0.0	X					S	
FCLP	491	DAY FCLP	1.3		365	0.1	365	0.1	X					A	1
FCLP	492	NIGHT FCLP	1.3		365	0.1	365	0.1	X			N		A	1
Sub Total			2.6	1.0		0.2		0.2							
			FLIGHT HOURS	SIM HOURS		CRP		CRP							
Sub Total 400			23.4	1.0		5.0		5.0							
Total 200, & 300			94.9	12.0		95.0		95.0							
Total 200, 300, & 400			118.3	13.0		100.0		100.0							

FA-18A/C/D 500 LEVEL: INSTRUCTOR/SWD/TRK												
STAGE	TRAINING CODE	SORTIE DESCRIPTION	FLIGHT HRS	SIM HRS	REFLY FA-18 A/C/D	REFRESHER	CHAINING	EVAL	NIGHT	NIGHT SYSTEMS	AC / SIM	MIN # OF AC
SLATI	S510	LAT REVIEW		1.0	*			X			S	
LATI	511	BASIC LAT	1.3		*			X			A	2
LATI	512	ADVAN LAT CHASE	1.3		*			X			A	2
LATI	513	LAT CHASE (CERT)	1.3		*		208E, 681	X			A	2
ACTI	520	1V1 BFM	1.3		*		230	X			A	2
ACTI	521	2V2 SEM	1.3		*		236	X			A	2
ACTI	522	2V2 PHID (CERT)	1.3		*		244, 688	X			A	2
NSI	530	FAM / FORM	1.3		*			X		NS	A	2
NSI	531	AI	1.3		*		271	X		NS	A	2
NSI	532	LAT SEC ATTK (CERT)	1.3		*		412E, 698	X		NS	A	2
FAC(A)I	540	DAY LOW THREAT	1.3		*		250	X		(NS)	A	2
FAC(A)I	541	DAY HI THREAT	1.3		*		252	X		(NS)	A	2
FAC(A)I	542	NIGHT MED/HI THREAT(CERT)	1.3		*		251, 683	X		NS	A	2
TAC(A)I	550	MULTI-AGENCY (CERT)	1.3		*		391E, 689	X		(NS)	A	2
ASWD	560	CIRCULAR GUN PATT	1.3		730		430				A	1+
ASWD	561	FWQD GUN PATTERN	1.3		730		430				A	2
ASWD	562	EMPLOY AIM-9	1.3		1095						A	2
ASWD	563	EMPLOY AIM-7	1.3		1095						A	2
ASWD	564	EMPLOY AIM-120	1.3		1095						A	2
SSWD	570	EMPLOY MK 82/83/84	1.3		180				(N)		A	2
SSWD	571	EMPLOY M61A1 (AS)	1.3		180					(NS)	A	2
SSWD	572	EMPLOY CBU'S	1.3		365					(NS)	A	2
SSWD	573	EMPLOY NAPALM	1.3		545					(NS)	A	2
SSWD	574	EMPLOY ROCKETS	1.3		365					(NS)	A	2
SSWD	575	EMPLOY BATTLEFIELD ILLUM	1.3		365				N	(NS)	A	2
SSWD	576	CAPTIVE AGM-65F	1.3		180		260			(NS)	A	2
SSWD	577	CAPTIVE AGM-65E	1.3		180		260			(NS)	A	2
SSWD	578	EMPLOY AGM-65F	1.3		1095		576, 260			(NS)	A	2
SSWD	579	EMPLOY AGM-65E	1.3		1095		577, 260			(NS)	A	2
SSWD	580	EMPLOY GBU-10/12/16/24	1.3		545					(NS)	A	2
SSWD	581	CAPTIVE JDAM	1.3		545		320			(NS)	A	2
SSWD	582	EMPLOY JDAM	1.3		1095		581, 320			(NS)	A	2
SSWD	583	CAPTIVE JSOW	1.3		545		320			(NS)	A	2
SSWD	584	EMPLOY JSOW	1.3		1095		583, 320			(NS)	A	2
SSWD	585	CAPTIVE HARM	1.3		180		321			(NS)	A	2
SSWD	586	EMPLOY HARM	1.3		1095		585, 321			(NS)	A	2
SSWD	587	EMPLOY SLAM(ER)	1.3		1095					(NS)	A	2
SSWD	588	EMPLOY TALD	1.3		1095					(NS)	A	2
TRK	598	REQUIRED ORD NOT AVAIL										
TRK	599	DISSIM ADVERSARY NOT AVAIL										
			FLIGHT HOURS	SIM HOURS								
Total 500				1.0								

FA-18A/C/D 600 LEVEL: RQD/QUAL/DESG/IDESG												
STAGE	TRAINING CODE	SORTIE DESCRIPTION	FLIGHT HRS	SIMULATOR HRS	REFLY FA-18 A/C/D	REFRESHER	CHAINING	EVAL	NIGHT	NIGHT SYSTEMS	AC / SIM	MIN # OF AC
RQD	600	NATOPS CHECK	1.3		365			X			A/S	
RQD	601	INSTRUMENT CHECK	1.3		365			X	(N)		A/S	
SRQD	602	EP SIMULATOR		1.0	180			X			S	
RQD	603	(D/N) STRATEGIC TANKER	1.3		545		200		(N)		A	1+
SRQD	604	PMCF SIM		1.0				X			S	
RQD	605	SEC LEAD PROFICIENCY FLT	1.3		90	X					A	1+
RQD	606	DIV LEAD PROFICIENCY FLT	1.3		180	X					A	1+
RQD	607	MSN CMDR PROFICIENCY FLT	1.3		365	X					A	1+
QUAL	610	LAT QUAL	1.3			X	208E	X			A	1+
QUAL	613	DAY CQ	1.3			X	490	X			A	1+
QUAL	615	NIGHT CQ	1.3			X	490,491	X	N		A	1+
QUAL	616	ACM QUAL	1.3				245E	X			A	2
QUAL	619	FAC(A) QUAL	1.3				387E	X			A	2
QUAL	621	NSQ HI	1.3				214E	X		NS	A	2
QUAL	622	NSQ Low	1.3				412E	X		NS	A	2
QUAL	623	TAC(A) QUAL	1.3				391E	X			A	1
QUAL	624	LSO QUAL										
DESG	631	PMCF DESG	1.3					X			A	2
DESG	640	SEC LD WU: ACM-242	1.3				242	X			A	2
DESG	641	SEC LD WU: BFM -233	1.3				233	X			A	2
DESG	642	SEC LD WU: BFM -236	1.3				236	X			A	2
DESG	643	SEC LD WU: ACM-334	1.3				334	X			A	2
DESG	644	SEC LD WU: BAS-226	1.3				226	X			A	2
DESG	645	SEC LD WU: BAS-322	1.3				322	X			A	2
DESG	646	SEC LD WU: CAS-251	1.3				251	X			A	2
DESG	647	SEC LD WU: CAS-252	1.3				252	X			A	2
DESG	648	SEC LD WU: AR-261	1.3				261	X			A	2
DESG	649	SEC LD DESG: AI-370	1.3				370	X			A	2
DESG	650	DIV LD WU: ACM-435	1.3				435	X			A	4
DESG	651	DIV LD WU: ACM-338	1.3				338	X			A	4
DESG	652	DIV LD WU: AR-461	1.3				461	X			A	4
DESG	653	DIV LD WU: AI-372	1.3				372	X			A	4
DESG	659	DIV LD DESG: AI-470	1.3				470	X			A	4
DESG	670	MSN CMDR WU: AI-471	1.3				471	X			A	4+
DESG	671	MSN CMDR WU: AI-472	1.3				472	X			A	4+
DESG	679	MSN CMDR DESG: AI-472	1.3				472	X			A	4+
IDESG	681	LAT(I)						X			A	
IDESG	683	FAC(A)I						X			A	
IDESG	688	ACT(I)						X			A	
IDESG	689	TAC(A)I						X			A	
IDESG	696	TOPGUN										
IDESG	697	MDTC										
IDESG	698	NSI						X		NS	A	
IDESG	699	WTI										
			FLIGHT HOURS	SIM HOURS								
Total 600			42.9	2.0								

171. T&R EVENT CONVERSION TABLE

1. Purpose. To provide a reference to facilitate the conversion of the former T&R codes to the new format.

OLD STAGE	OLD TRNG CODE	NEW STAGE	NEW TRNG CODE
200 LEVEL			
NAV	200		
	201	BAS	222
AR	202	AAR	200
	203		201
SFCLP	204	SFCLP	290
FCLP	204	FCLP	491
	205		492
SEW	206	STRXN	202
EW	206	TRXN	203
SLAT	208	SLAT	204
LAT	208	LAT	205
	209		206
SAA	210	SACM	240
AA	210	ACM	242
	211		242
	212	BFM	230
	213		231
	214		232
	215		233
	216		233
	217		234
	218		235
	219		
	220		236
	221	ACM	243
	222		243
	223		245
AS	230	BAS	222
	231		224
	232		223
	233		226
	234		227
	235		228
CAS	240	CAS	250
	241		251
DAS	250	AR	261
	251	AI	272

OLD STAGE	OLD TRNG CODE	NEW STAGE	NEW TRNG CODE
300 LEVEL			
LAT	308	LAT	207
	309		208
SAA	310	SACM	330
AA	311	ACM	333
	312		332
	313		335
	314		334
	315		336
	316		433
	317		434
	318		435
	319		338
	320		337
	321		338
SAS	330	SBAS	330
AS	330	BAS	322
	331		323
	332		322
	333		324
CAS	340	CAS	351
	341		352
DAS	350		
	351	AI	371
	352		372
SASWD	360		
ASWD	360	ACM	430
	361		430
	362	ASWD	562-564
SSSWD	370	SBAS	321
	371		
	374	SAR	260
	375		260
SSWD	370	SSWD	585
	371		
	372		588
	373		575
	374		576
	375		577
	376		
SNS	380	SNS	209
	381		
NS	380		210
	381		211
	382		212
	383		213
	384		214
	385		410
	386		411
	387		412

OLD STAGE	OLD TRNG CODE	NEW STAGE	NEW TRNG CODE
300 LEVEL (con't)			
SCACC	390		
	391		
	392		
CACC	390	FAC(A)	380
	391		381
	392		382
	393		383
	394		384
	395		385
	396		386
	397		387
	398	TAC(A)	390
	399		391

OLD STAGE	OLD TRNG CODE	NEW STAGE	NEW TRNG CODE
400 LEVEL			
CQ	400		
	401		
AA	410	ACM	431
	411		432
DAS	450	AR	362
	451		362
	452		363
	453	BAS	325
	454	AI	471
	455		472
SSSWD	470		
	471		
	472	SSWD	583
	473		587
SSWD	470		
	471		
	472		584
	473		587
	474		