

TAC SYLLABUS
COURSE 02A00B00PQ/
0V100B00PQ

USAF
OPERATIONAL
TRAINING COURSE
02/0V-10



TACTICAL AIR COMMAND

DEPARTMENT OF THE AIR FORCE
Headquarters Tactical Air Command
Langley Air Force Base, Virginia 23665

TAC SYLLABUS
COURSE NO. 02A00B00PQ/OV100B00PQ
February 1983

OPERATIONAL TRAINING COURSE, 0-2/OV-10 PILOT

INTRODUCTION

This syllabus prescribes the overall training strategy and approximate amount of instruction required for a student having the entry prerequisites to attain the course goals and to graduate. Units tasked to implement this syllabus are responsible for ensuring that each student graduated possesses the attitudes, knowledge, and skill proficiencies set forth in the course training standards. Within syllabus and other directive constraints, the amount and level of training devoted to mission elements, events, subjects, or phases should be adjusted as required to meet the needs of individual students.

Instructions governing publication and revision of TAC syllabi are contained in TACR 8-1.

OFFICIAL

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Supersedes TAC Syllabus, Course No. 02A00B00PQ/OV100B00PQ, Feb 82
OPR: HQ TAC/DOTP
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SUMMARY OF CHANGES

This syllabus incorporates the following revisions.

1. Format is in accordance with TACR 8-1.
2. Duration is now 43 training days (5 PRE-GTD, 36 FTD, 2 POST-GTD).
3. References to Ground Attack (GA) have been replaced with Surface Attack (SA).
4. Academic hours have increased to 88.4.
5. Progress checks, rechecks, and corrective action sorties as the result of checkrides are not counted as additional instructional sorties.
6. Special instructions are included for NAV-3, ASC-5, SA-1, ASC-10, for students on Marginal Student Status, and for using FWS texts.
7. Forty five degree rocket delivery familiarization is added for OV-10 Only.
8. Lost wingman procedures have been added as an event in the mission qual phase.
9. Distribution listing has been updated.
10. SA 4 is programmed as a two ship.
11. 0-2A short field landings and short field, min run landings have been added as event requirements.

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DISTRIBUTION

HQ TAC Langley AFB, VA 23665		549TASTG/DO Patrick AFB, FL 32925	200
DOTPS	1	602TAIRCW/DO Bergstrom AFB, TX 78743	1
DOTPF	15	23TASS/CC Davis Monthan AFB, AZ 85707	5
DOTS	1	21TASS/CC Shaw AFB, SC 29152	5
ACMC	1	24COMPSQ/CC APO Miami 34001	5
DPRO	1	601TASG/DO APO New York 09130	10
HO	1	20TASG/DO APO New York 09130	5
IGIO	1	704TASS/CC APO New York 09130	5
INAS	1	25TASS/CC Eielson AFB, AK 99702	5
SE	1	19TASS/CC APO San Francisco 96570	5
XPMQ	1	22TASS/CC Wheeler AFB, HI 96854	5
DOVF	1	USAFAGOS/CC Eglin AF Aux Fld 9 FL 32544	5
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HQ USAF/XOOTD Washington, DC 20330	1	USAFTFWC/CS Nellis AFB, NV 89191	1
HQ USAF/XOOTT Washington, DC 20330	1	24COMPW/DO APO New York 34001	1
HQ USAF/MPPTF Washington, DC 20330	1		
HQ NGB/XOO Washington, DC 20310	1		
HQ USAFE/DOT APO New York 09012	1		
HQ PACAF/DOOT Hickam AFB, HI 96853	1		
HQ AAC/DOT Elmendorf AFB, AK 99506	1		
HQ ATC/DOT Randolph AFB, TX 78148	1		
9AF/DO Shaw AFB, SC 29152	1		
12AF/DO Bergstrom AFB, TX 78743	1		
507TAIRCW/DO Shaw AFB, SC 29152	2		

1SOW/DO Hurlburt Fld, FL 32544	1	128TASW/DO 3110 Mitchell Street Madison, WI 53704	1
354TFW/DO Myrtle Beach AFB, SC 29577	1	105TASTG/DO Westchester Cty Arpt White Plains, NY 10604	1
56TTS/OTD MacDill AFB, FL 33608	1	110TASTG/CC Kellogg Fld, Battle Creek, MI 49016	1
31TTW/DOO Homestead AFB, FL 33039	1	163TASG/CC Ontario IAP, CA 91761	1
31TTW/DO Homestead AFB, FL 33039	1	182TASG/CC Greater Peoria AP Peoria, IL 61607	1
56TTW/DO MacDill AFB, FL 33608	1	111TASG/CC Willow Grove NAS Willow Grove, PA 19090	1
23TFW/DO England AFB, LA 71301	1		
347TFW/DO Moody AFB, GA	1		

CHAPTER 1

COURSE ACCOUNTING

SECTION A: COURSE DESCRIPTION

1-1. Course Title and Number: Airborne Forward Air Controller Training Course, 02A/OV-10 Pilot, 02A00B00PQ/OV100B00PQ.

1-2. Course Entry Prerequisites: IAW AFM 50-5, Volume II, Chapter 9. In addition to satisfying eligibility requirements listed in AFM 50-5, students with nonfighter background must have completed the TAC Forward Air Controller Orientation Course (T-38) prior to their class start date.

1-3. Purpose and Graduate Status:

a. Purpose: To train pilots in the following basic Forward Air Controller Skills: normal operation (ground ops, takeoff, landing, etc.), emergency procedures, instruments, formation, surface attack (scorable and tactical target marking), navigation, and airstrike control.

b. Graduate Status: Graduates are qualified to perform the Forward Air Controller mission and require only theater indoctrination and unit certification prior to attaining MR status. Following graduation, pilots are awarded an 1141C (O-2A) or 1141B (OV-10) AFSC.

1-4. Location: 549 TASTG, Patrick AFB, FL.

1-5. Duration: Forty-three training days (7 ground training days, 36 flying training days).

1-6. Amount:

a. Academic Hours

(1) Initial Qualification Training	41.0
(2) Mission Qualification Training	<u>47.4</u>

TOTAL	88.4
-------	------

b. Flying Sorties/Hours

(1) Initial Qualification Training	
(a) Transition	7/14.0
(b) IQI	1/ 2.0

(2) Mission Qualification Training	
(a) Navigation	3/ 6.0
(b) Surface Attack	4/ 8.0
(c) Airstrike Control	10/20.0
(d) Mission Qual Eval	<u>1/ 2.0</u>

TOTAL	26/52.0
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SECTION B: FLYING INVENTORY

1-7. Sorties

STUDENT		DIRECT UE SUPPORT		OTHER
Sorties	Hours	Sorties	Hours	SUPPORT SORTIES
TR 1-7	14.0			
<u>IQI</u>	<u>2.0</u>			
8	16.0			
<u>NAV 1-3</u>	<u>6.0</u>			
3	6.0			
SA 1	2.0	.33	.66	
SA 2	2.0	.33	.66	
SA 3	2.0			
<u>SA 4</u>	<u>2.0</u>			
4	8.0	<u>.66</u>	<u>1.32</u>	
ASC 1	2.0			
ASC 2	2.0	1	2.0	1 Fighter Support
ASC 3	2.0			2 Fighter Support
ASC 4	2.0			1 Fighter Support
ASC 5	2.0	1	2.0	
ASC 6	2.0			2 Fighter Support
ASC 7	2.0			1 Fighter Support
ASC 8	2.0	1	2.0	
ASC 9	2.0			1 Fighter Support
ASC 10	2.0			2 Fighter Support
<u>MQ Eval</u>	<u>2.0</u>			1 Fighter Support
	22.0	<u>3</u>	<u>6.0</u>	<u>11</u>
26 TOTAL	52.0	3.66	7.32	11 40% support only 1 range period.

SSR = 32.66 (26.0 + 3.66 + 3.0)

SECTION C: TRAINING DEVICE INVENTORY

1-8. N/A

SECTION D: ACADEMIC INVENTORY

1-9. ACADEMIC TRAINING	Hours
Specialized Training (ST)	18.0
Workbooks (WB)	14.2
Life Support (LS)	6.0
Aircraft General (AG)	12.0
Instrument Refresher (IR)	12.0
<u>Mission Training (FAC)</u>	<u>23.7</u>
TOTAL	85.9
1-10. Audio Visual Media	
Audio Visual Programs (AV)	<u>2.5</u>
TOTAL	88.4

SECTION E: WEAPONS INVENTORY

1-11. Munitions

STUDENT SORTIES	WEAPONS TYPES (Student/IP)						RANGE SORTIES PER STUDENT
	INERT 2.75	WP 2.75	7.62*	MK-6	LUU-2B	BDU-33**	
SA 1	8/2.67		50/16.67				M-CONV/1.33
SA 2		8/2.67					M-NUC /1.33
SA 3		8/0					U-TAC /1.00
SA 4		4/0		2/0	2/0		U-TAC /1.33
ASC 2		6/0				12	U-TAC /3.0
ASC 3		6/0				12	U-TAC /3.0
ASC 4		6/0				12	U-TAC /3.0
ASC 5		6/12					U-TAC /3.0
ASC 6		6/0				12	U-TAC /3.0
ASC 7		0/0				12	U-TAC /3.0
ASC 8		6/0				12	U-TAC /3.0
ASC 9		6/0				12	U-TAC /3.0
ASC 10		6/0				12	U-TAC /3.0
MSN QUAL EVAL		6/0				12	U-TAC /3.0
14 TOTAL	8/2.67	74/14.67	50/16.67	2/.0	2/.0	108	34.99
TOTAL ALLOCATION (EFFECTIVE + N/E + IP)	12.00	99.00	66.67	2.0	2.0	125.00	

* OV-10 Only (OV100B00PQ)

** Fighter Support Requirement

1-2. Munitions Configurations

0-2A Load Code

OV-10 Load Code

Load Code	Munitions Load	Load Code	Munitions Load
02-1	2 LAU-68A 8 2.75 Rkts (Inert)	OV-1	2 LAU-68A 8 2.75 Rkts (Inert) 50 Rnd 7.62 Ammo
02-2	2 LAU-68A 4 2.75 Rkts (WP)	OV-2	1 LAU-68A 4 2.75 Rkts (WP)
02-3	2 LAU-68A 6 2.75 Rkts (WP)	OV-3	1 LAU-68A 6 2.75 Rkts (WP)
02-4	2 LAU-68A 8 2.75 Rkts (WP)	OV-4	2 LAU-68A 8 2.75 Rkts (WP)
02-5	2 LAU-68A 12 2.75 Rkts (WP)	OV-5	2 LAU-68A 12 2.75 Rkts (WP)

Load Code	Munitions Load	Load Code	Munitions Load
02-6	1 LAU-68A 1 B-37K 4 2.75 Rkts (WP) 2 LUU-2B	OV-6	1 LAU-68A 2 B-37K 4 2.75 Rkts (WP) 2 LUU-2B/2 MK-6
02-7	1 LAU-68A 1 B-37K 4 2.75 Rkts (WP) 2 MK-6	OV-7	1 LAU-68A 1 B-37K 4 2.75 Rkts (WP) 2 MK-6

CHAPTER 2

COURSE MANAGEMENT

SECTION A: COURSE TRAINING STANDARDS

2-1. Training Standards and Grading Criteria IAW TACR 50-31.

a. Academic Training Standard. Each phase in academics will be evaluated by written examination or by problem solving. The minimum passing score is 85%. A passing grade is required prior to graduation. All examinations will be corrected to 100%.

b. Performance Training Standards and Grading Criteria. The course training standards reflect the overall course objectives. These standards enable instructors and supervisors to identify by event those areas requiring instructional emphasis, and they describe to the gaining unit the ability of the graduate to perform the required events. The level of proficiency at which the graduate should be able to perform the events listed for each phase of training and the grading standards for each event are given below.

<u>STANDARD/GRADE</u>	<u>DESCRIPTION OF PERFORMANCE</u>
Unknown	Performance not observed or the element was not performed.
Dangerous	Performance was unsafe.
0	Performance indicates lack of ability or knowledge.
1	Performance is safe, but indicates limited proficiency. Makes errors of commission or omission.
2	Performance is essentially correct. Recognizes and corrects errors.
3	Performance is correct, efficient, skillful, and without hesitation.
4	Performance reflects an unusually high degree of ability.

c. Performance Training Standards

<u>Initial Qualification Events</u>	<u>Level Required</u>
<u>Mission Preparation</u>	2
<u>Ground Operations</u>	
Prelight	2
Starting Procedures	2
Taxi	2
Before Takeoff	2
After Landing	2
Engine Shutdown	2
Normal Takeoff	2

<u>Airwork</u>	
Power-on Stalls	2
Traffic Pattern Stalls	2
Slow Flight	2
Steep Turns	2
Lazy Eight	2
Chandelle	2
SSE Maneuvering at Min SE Control Speed (0V-10)	2
Advanced Handling	2
<u>Aerobatics (0V-10 Only)</u>	
Aileron Roll	2
Barrel Roll	2
Cloverleaf	2
Loop	2
Cuban Eight	2
Immelmann	2
Vertical Recovery	2
Split "S"	2
<u>Instruments</u>	
Navigation Equipment Preflight	2
Basic Instruments	2
Steep Turns	2
Unusual Attitudes	2
ADF Procedures	2
GCA (PAR/ASR) Procedures	2
TACAN Procedures	2
VOR Procedures	2
ILS Procedures	2
SSE Instrument Approach	2
Circling Approach	2
IFR Departure, Enroute and Arrival Procedures	2
Inflight Instrument Navigation	2
<u>Traffic Patterns</u>	
Partial Flap	2
No Flap	2
Full Flap (0-2A Only)	2
SFL (0-2A Only)	2
Simulated Single Engine	2
<u>Landings</u>	
Partial Flap	2
Full Flap (0-2A Only)	2
No Flap	2
Simulated Single Engine	2
Reversing Procedures (0V-10 Only)	2
Min Run 2500-4000 ft R/W (0-2A Only)	1
Short Field Landing (2500-4000 ft R/W - 0-2A only)	2
<u>Emergency Procedures</u>	
Critical Action	3
Noncritical Action	3

<u>General</u>	
Use of Checklist	2
Aircraft Systems Operations	2
Fuel Management	2
Radio Procedures	2
Clearing	3
<u>Mission Qualification Events</u>	<u>Level Required</u>
Mission Preparation	2
Armament Procedures	2
Ground Operations	2
Normal Takeoff	2
Minimum Run Takeoff	2
<u>Formation</u>	
Taxi	2
Joinup	2
Fingertip	2
Route	2
Crossunder	2
Echelon	2
Trail	2
Signals	2
Flight Discipline	2
Wing Approach (OV-10 Only)	2
Gear and Flap Exercise	Familiarization
Lost Wingman Procedures	2
<u>Navigation/Visual Reconnaissance</u>	
1:250,000 Scale Map	2
1:50,000 (or larger) Scale Map	2
High Altitude Navigation	2
Medium Altitude Navigation	2
Low Altitude Navigation (below 1500 ft MSL, above 500 ft AGL)	2
Defensive Tactics	2
<u>Ordnance Delivery</u>	
Rockets (Conventional scorable)	2
Patterns	2
Rocket & Flare/Ground Marker Drop (Night)	Familiarization
Strafe (OV-10 Only)	Familiarization
Switch Procedures	3
Standoff Rockets	2
<u>Airstrike Control Procedures</u>	
Rendezvous	2
Briefing	2
Target Identification	2
Observation Position	2
Fighter Control	2
Target Marking	2
High Threat Tactics	2
Low Threat Tactics	2
Threat Avoidance	2
Damage Assessment	2
TACS/Army Coordination	2
Tactical Navigation	2
Comm Jam Countermeasures	2

Traffic Patterns

Partial Flap	2
No Flap	2
Full Flap	2
Simulated Single Engine	2
SFL (0-2A)	2
Tactical	2

Landings

Partial Flap	2
Full Flap	2
No Flap	2
Simulated Single Engine	2
Minimum Run	2
Min Run 2500-4000 ft R/W (0-2A Only)	2
Reversing Procedures (OV-10)	2

Emergency Procedures

Critical Action	3
Noncritical Action	3

General

Use of Checklist	2
Aircraft Systems Operations	2
Fuel Management	2
Tactical Radio Procedures	2
Threat Knowledge	2
Clearing	3

SECTION B: GENERAL COURSE INSTRUCTIONS

2-2. TAC/DO is the approval/waiver authority for this syllabus. At the discretion of TAC/DO this authority may be delegated to assistants or directors.

2-3. The Wing Commander is responsible for conducting the training specified under the authority/direction of this syllabus. Squadron Commanders may authorize deviations in the order of training to meet special weather and peculiar local conditions consistent with good training management, student progress, and student experience levels.

2-4. Two specific and compatible missions may be accomplished on a single sortie provided all syllabus requirements are met and the student's learning/absorption capability is not exceeded.

2-5. Each student may fly a maximum of four additional instructional sorties. For purposes of course accounting, progress checks, re-checks, and corrective action sorties as the result of flight checks are not considered additional instructional sorties. In the event a student is disenrolled from training or experiences an extended period without flying in excess of 14 calendar days, the squadron commander will authorize extra training sorties prior to the student resuming formal training. The number and type of additional sorties will be determined on an individual basis.

2-6. Flying Safety will be stressed at all times. Accident prevention will be based on thorough instruction, capable supervision, and strict flight discipline.

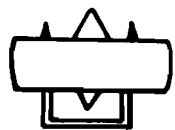
2-7. Emergency procedures will be briefed and graded on every mission.

2-8. Students will not brief and lead syllabus missions. This restriction does not prohibit a student from briefing his mission responsibilities. When the syllabus requires an IP chase or the student to fly lead position for a specified period, the student does not become a designated flight lead. The IP retains lead of the flight and overall responsibility for the conduct of the mission.

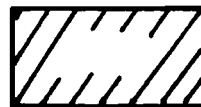
2-9. Graduation from this course requires the effective completion of all training prescribed by the syllabus. Those students failing to achieve the syllabus required proficiency levels will be processed IAW AFR 35-13.

SECTION C: COURSE FLOW

2-10. **COURSE MAP.** The Course Map is the primary course control document. It lists all training to be accomplished in the course and establishes prerequisite relationships that insure proper integration of academic and flying training. A block of instruction may not be accomplished unless all prerequisites leading into that block have been accomplished. The following legend is used with the course map and the management flow chart.



FLIGHT



EXAMINATION



FLIGHT EVALUATION



SELF STUDY ACADEMICS



ACADEMIC INSTRUCTION

a. Flying Training

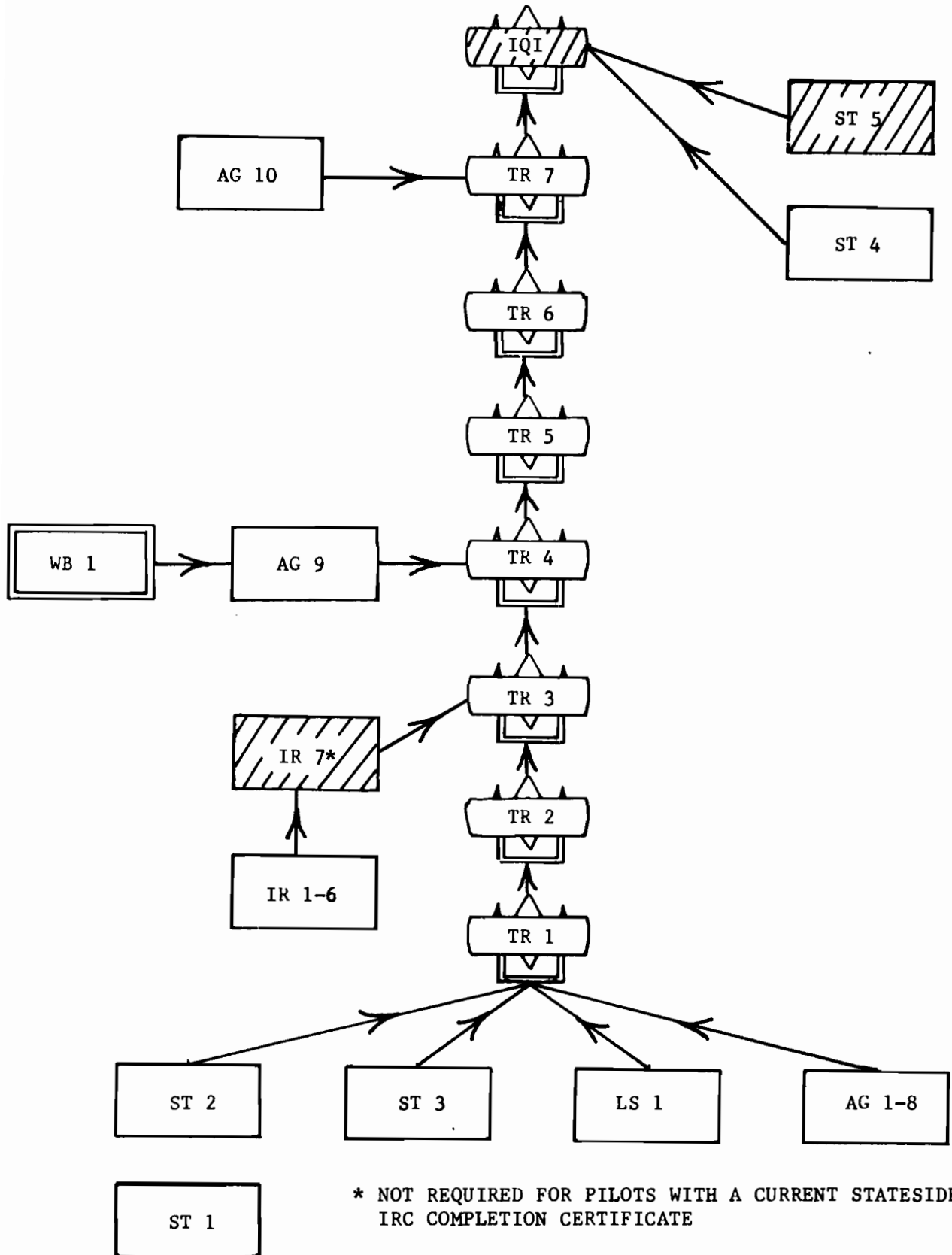
SORTIE	SYMBOL
Transition	TR
Navigation	NAV
Surface Attack	SA
Airstrike Control	ASC
Initial Qual/Instrument Eval	IQI
Mission Qual Eval	TQFE

b. Ground Training

COURSE	SYMBOL
In-Processing	ST-1
Initial Qualification	ST-2
Life Support	LS-1
Aircraft General	
Flight Controls	AG-1
Electrical Systems	AG-2
Fuel Systems	AG-3
Hydraulics	AG-4
Engines/Propellers	AG-5
Instruments & COM/NAV	AG-6
Armament Systems	AG-7
Environmental Systems (OV-10 Only)	AG-8
Cockpit Familiarization	ST-3
Instrument Refresher Course	
FLJP	IR-1
AFM 51-37	IR-2
Weather	IR-3
AFR 60-16	IR-4
Aviation Physiology	IR-5
Air Traffic Control	IR-6
Instrument Test	IR-7
Aircraft Performance Data	
Self Study	WB-1
Seminar	AG-9
Aircraft Emergency Procedures	AG-10
IQ/I Briefing	ST-4
Stan Eval Test	ST-5
Mission Qual Phase Briefing	ST-6
Formation	
Self Study	WB-2
Test	FAC-1
Navigation	
NAV 1	WB-3
Sound-on-Slide	AV-1
NAV 2	WB-4
NAV 3	WB-5
Range Procedures	FAC-2
Ordnance Delivery	FAC-3

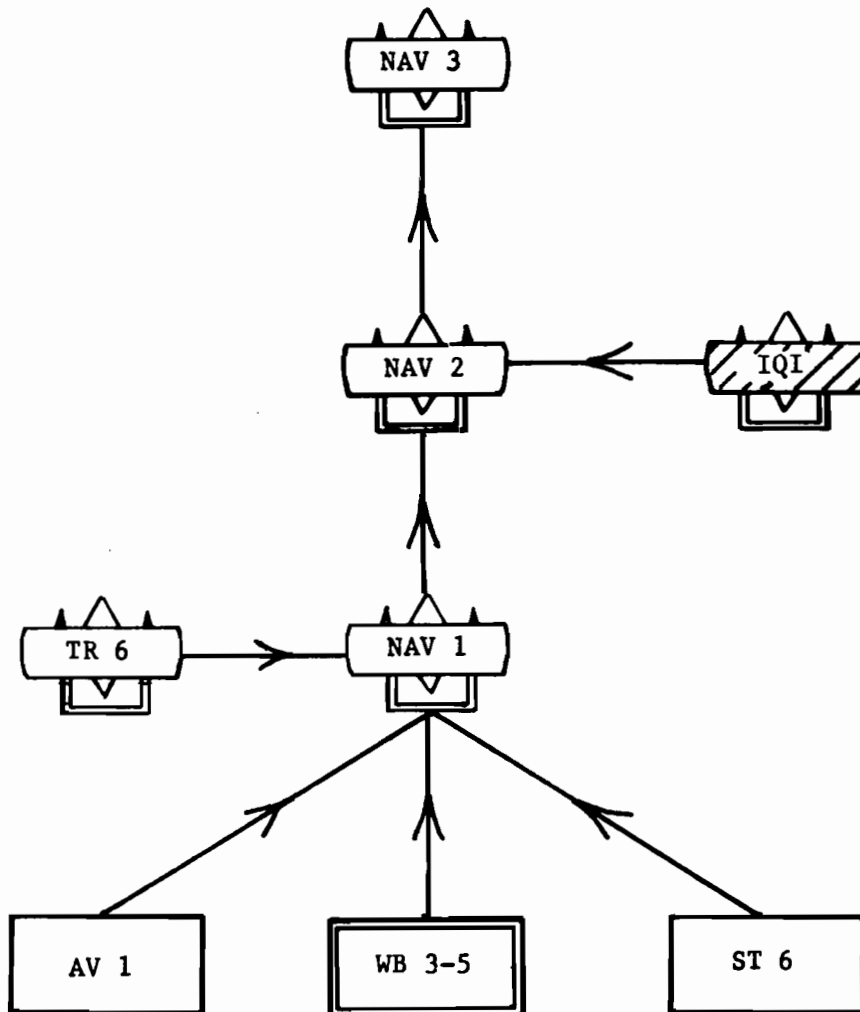
Airstrike Control	
Self Study	WB-6
Airstrike Control	FAC-4
Anti-Aircraft Threat	
Threat Knowledge	FAC-5
Self Study	WB-7
Examination	FAC-6
Weapons Effects	
General Weapons Effects	WB-8
Bombs/CBU	WB-9
Rockets/Napalm/Guns	WB-10
Weapons Effects Film	AV-2
Weapons Effects Seminar	FAC-7
High Threat Airstrike Control	FAC-8
Fighter Capabilities	FAC-9
Night CAS	FAC-10
Combat Mission Planning	FAC-11
TQFE Brief	ST-7
Stan Eval Test	ST-8
Critique Preparation	ST-9
Theater Familiarization	
Self Study	WB-11
Test	FAC-12
Mountain Flying	AV-3
FAC Additional Roles	FAC-13
Life Support Refresher Training	LS-2

COURSE MAP TR

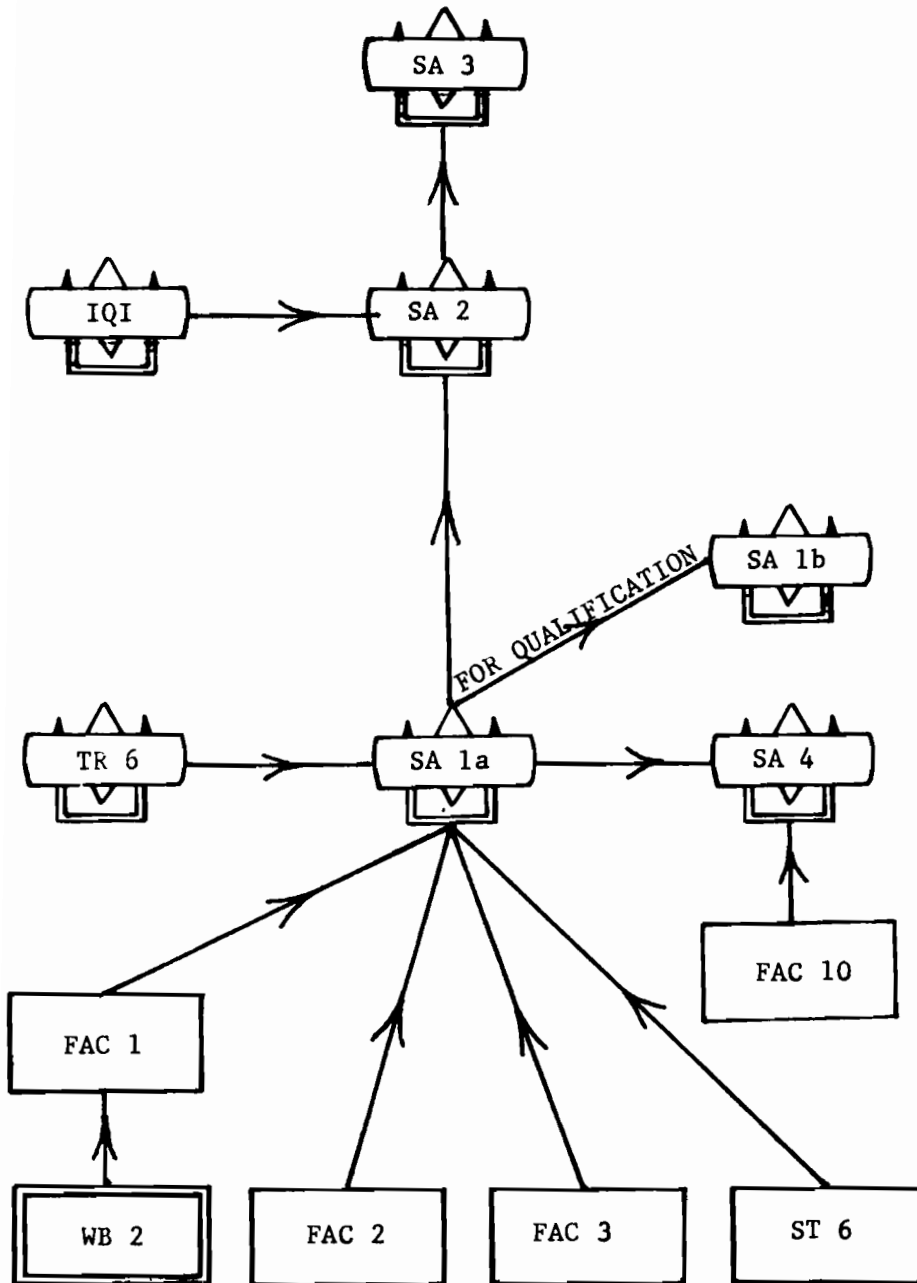


* NOT REQUIRED FOR PILOTS WITH A CURRENT STATESIDE IRC COMPLETION CERTIFICATE

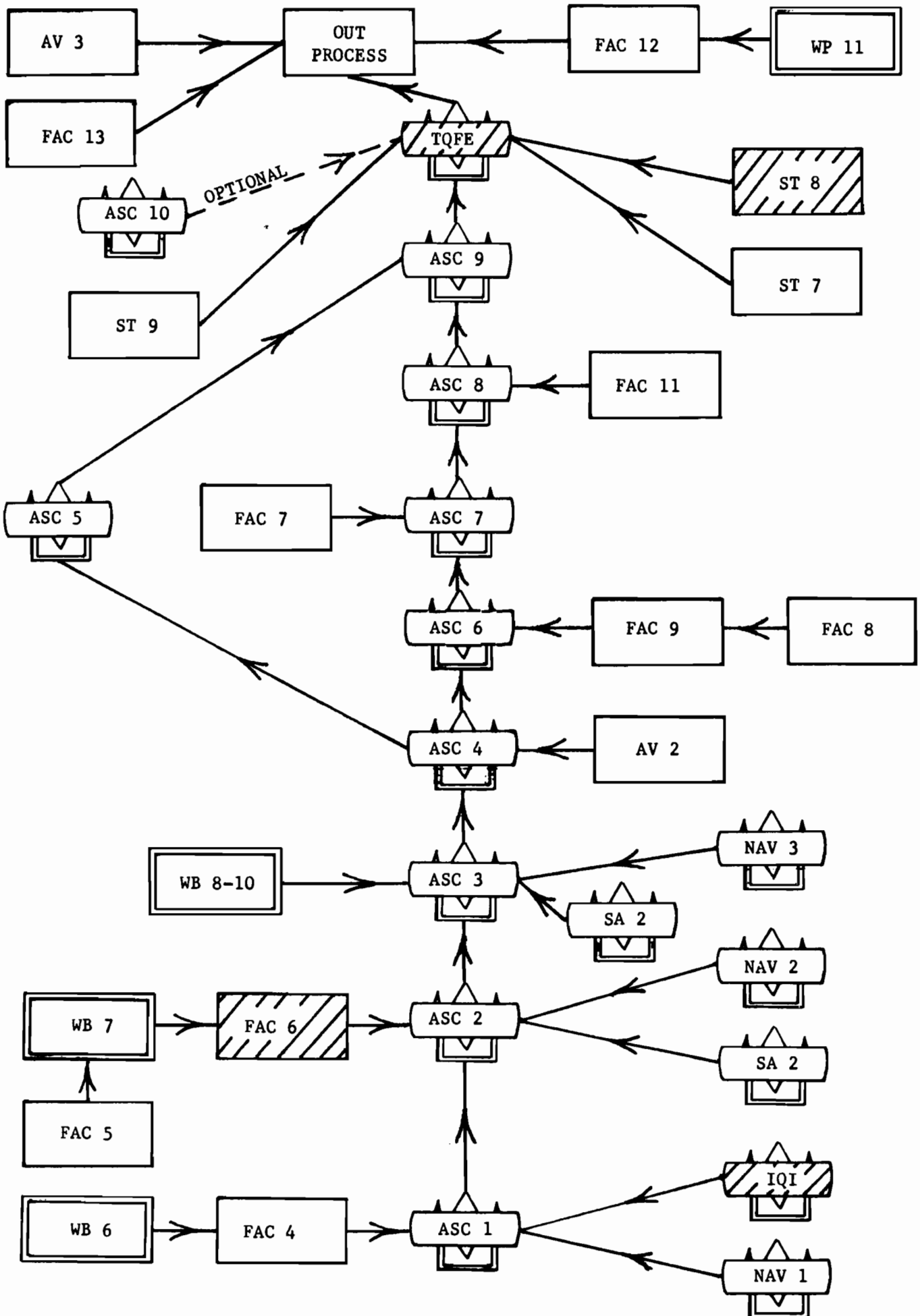
COURSE MAP NAV



COURSE MAP SA



COURSE MAP ASC



2-11. The management Flow Chart meets all Course Map prerequisites and provides a relatively constant student workload per day. While it is highly recommended that the Management Flow Chart be followed as closely as possible, units may use any course flow that does not violate the constraints of the Course Map. Local managers are responsible for insuring that their schedules do not entail excessive delays between the completion of prerequisites and subsequent training.

MANAGEMENT FLOW CHART

TRAINING DAY	1	2	3	4	5	6	7	8	9	10
FLIGHT						TR 1	TR 2 TR 1	TR 3 TR 2	TR 4 TR 3	TR 5 TR 4
CLASSROOM	ST-1 LS-1	AG-1 AG-2 AG-3 AG-4 AG-5	AG-6 AG-7 AG-8 ST-2 WB-1 AG-9	IR-1 IR-2 IR-3 IR-4	IR-5 IR-6 IR-7 ST-3			AG-10		
TRAINING DAY	11	12	13	14	15	16	17	18	19	20
FLIGHT			TR 6 TR 5	TR 7 TR 6	IQI TR 7		NAV 1	NAV 2 NAV 1	NAV 2 GA 1	GA 1 NAV 3
CLASSROOM	ST-4 WB-2 FAC-1 FAC-2 FAC-3	ST-5 WB-3 AV-1 WB-4 WB-5	ST-6			WB-6 WB-7 FAC-4 FAC-5	FAC-6		WB-8	WB-9 WB-10 AV-2

TRAINING DAY	21	22	23	24	25	26	27	28	29	30
FLIGHT		GA 2 NAV 3	GA 2	ASC 1	ASC 1	GA 3	GA 3 ASC 2	ASC 2 ASC 3	ASC 3	ASC 3 ASC 4
CLASSROOM	FAC-7 LS-2					FAC-8 FAC-9				FAC-10
TRAINING DAY	31	32	33	34	35	36	37	38	39	40
FLIGHT	GA 4	GA 4 ASC 4	ASC 5	ASC 5 ASC 6	ASC 6 ASC 7	ASC 7 ASC 8	ASC 8 ASC 9	ASC 9 ASC 10	ASC 10	TQFE
CLASSROOM			FAC-13	FAC-11		ST-7		ST 8	ST-8	WB-11 FAC-12 ST-9 AV-3

TRAINING DAY	41																			
FLIGHT	TQFE																			
CLASSROOM	WB-11 FAC-12 ST-9 AV-3																			

CHAPTER 3

ACADEMIC TRAINING

SECTION A: SPECIALIZED TRAINING (ST)

3-1. SPECIAL INSTRUCTIONS

All specialized training will be accomplished according to the Course Map.

ST 1
Classroom

Lecture
Time: 3.0

Administration: Commander's welcome, records turn-in, course administration, publications issue, squadron orientation.

ST 2
Classroom

Lecture
Time: 1.0

Transition Phase Briefing.

ST 3
Flight Line

Practice
Time: 2.0

Cockpit Familiarization

ST 4
Classroom

Lecture
Time: 1.0

Initial Qual/Instrument Checkride Briefing

ST 5
Testing Room

Examination
Time: 4.0

IQI Examination

ST 6
Classroom

Examination
Time: 1.0

Mission Qual Phase Briefing

ST 7
Classroom

Lecture
Time: 1.0

Mission Qual Checkride Briefing

ST 8
Testing Room

Examination
Time: 4.0

TQFE Examination

ST 9
Classroom Critique
Time: 1.0

Course Critique Preparation

AV 3
Classroom 16mm Film
Time: 1.0

Mountain Flying

SECTION B: ACADEMIC COURSES

3-2. SPECIAL INSTRUCTIONS

a. This section contains the title and a brief description of each academic instructional unit. Phase Study Guides contain the Criterion Referenced Objectives for each block of instruction and serve as source documents for all academic training.

b. Each student will be issued a Phase Study Guide prior to phase entry.

c. All academic training will be conducted according to the course map.

d. Workbooks must be completed prior to the class for which they are prerequisites.

3-3. INITIAL QUAL MODULE

LIFE SUPPORT (LS)

LS 1
Personal Equipment Classroom Lecture/Practice
Time: 5.0

Introduction to life support equipment, emergency ground egress, ejection procedures (OV-10 Only), hanging harness (OV-10 Only)

LS 2
Personal Equipment Classroom Lecture/Practice
Time: 1.0

Refresher Training

AIRCRAFT GENERAL (AG)

AG 1
Classroom Lecture
Time: 1.0

Flight Controls: System description, operation, preflight

AG 2
Classroom Lecture
Time: 1.0

Electrical System: Electrical power distribution, normal and emergency procedures, electrical power required for start

AG 3 Classroom	Lecture Time: 1.0
Fuel System: Normal operation, emergency procedures, permissible fuels, servicing	
AG 4 Classroom	Lecture Time: 1.0
Hydraulics: Normal operation, back-up systems, emergency procedures	
AG 5 Classroom	Lecture Time: 1.0
Engines/Propellers: Normal operation, feathering procedures, preflight	
AG 6 Classroom	Lecture Time: 1.0
Instruments/COM/NAV: Preflight, operation, range	
AG 7 Classroom	Lecture Time: 1.0
Armament Systems: Sight operation, normal/alternate release methods, emergency jettison	
AG 8 (OV-10 Only) Classroom	Lecture Time: 1.0
Environmental Systems: Oxygen system operation	
WB 1 Classroom	Workbook Time: 1.0
Aircraft Performance Data self study	
AG 9 Classroom	Seminar Time: 1.0
Aircraft Performance Data: Takeoff, climb, cruise, descent, landing	
AG 10 Classroom	Lecture Time: 3.0
Aircraft Emergency Procedures: Situational emergencies	
INSTRUMENT REFRESHER COURSE (IR)	
IR 1 Classroom	Lecture Time: 2.0
FLIP: Flight plans, pilot procedures	

IR 2 Classroom	Lecture Time: 2.0
AFM 51-37: NAV aids, approach procedures, local facilities	
IR 3 Classroom	Lecture Time: 1.0
Weather: Reporting, pilot responsibilities, air mass weather, local conditions	
IR 4 Classroom	Lecture Time: 1.0
AFR 60-16: Pilot Responsibilities	
IR 5 Classroom	Lecture Time: 1.0
Aviation Physiology: Susceptibility, causes and corrective actions for spatial disorientation	
IR 6 Classroom	Lecture Time: 1.0
Air Traffic Control: ATC responsibilities, area of control, local procedures	
IR 7 Classroom	Examination Time: 4.0
Instrument Exam	
3-4. MISSION QUAL MODULE	
FORWARD AIR CONTROL (FAC)	
WB 2 Classroom	Workbook Time: 1.2
Formation: Self Study	
FAC 1 Classroom	Examination Time: .2
Formation Procedures Exam	
WB 3 Classroom	Workbook Time: .5
Navigation: NAV-1 Procedures	
AV 1 Classroom	35mm Slide Time: .5
Navigation Procedures, General	

WB 4
Classroom

Workbook
Time: .5

Navigation: NAV-2 Procedures

WB 5
Classroom

Workbook
Time: .5

Navigation: NAV-3 Procedures

FAC 2
Classroom

Lecture
Time: 1.0

Range Procedures: Avon Park

FAC 3
Classroom

Lecture
Time: 1.0

Ordnance Delivery: Rockets (conventional and standoff), strafe (OV-10 Only), DASH-34

WB 6
Classroom

Workbook
Time: .5

Airstrike Control: Self study introduction to airstrike planning

FAC 4
Classroom

Lecture
Time: 2.5

Airstrike Control: Low Threat Airstrike Planning

FAC 5
Classroom

Lecture
Time: 3.0

Anti-Aircraft Threat: Threat Knowledge

WB 7
Classroom

Workbook
Time: 1.0

Anti-Aircraft Threat: Self Study

FAC 6
Classroom

Examination
Time: 1.0

Anti-Aircraft Threat Exam

WB 8
Classroom

Workbook
Time: 2.0

General Weapons Effects

WB 9 Classroom	Workbook Time: 3.0
Weapons Effects - Bombs/CBU	
WB 10 Classroom	Workbook Time: 2.0
Weapons Effects - Rockets/Napalm/Guns	
AV 2 Classroom	16mm Film Time: 1.0
Weapons Effects Film	
FAC 7 Classroom	Seminar Time: 3.0
Weapons Effects Seminar	
FAC 8 Classroom	Lecture Time: 2.0
High Threat Airstrike Control: F-FAC/FAC-A, Mission Planning	
FAC 9 Classroom	Lecture Time: 3.0
Fighter Capabilities: Maneuverability, communications, target acquisition systems, fuel, ordnance	
FAC 10 Classroom	Lecture Time: 2.0
Night Close Air Support: Planning, lighting, formation	
FAC 11 Classroom	Lecture Time: 2.0
Combat Mission Planning: Frag breakout, coordination, airstrike execution, comm jam, chattermark, post strike reports	
WB 11 Classroom	Workbook Time: 2.0
Theater Familiarization: Self Study	
FAC 12 Classroom	Examination Time: 1.0
Theater Fam Exam	
FAC 13 Classroom	Lecture Time: 2.0
FAC Additional Roles: SAR, Escort, OFC	

CHAPTER 4
DEVICE TRAINING

4-1. N/A

CHAPTER 5

FLYING TRAINING

SECTION A: SPECIAL INSTRUCTIONS ALL PHASES

5-1. Tasks in the mission outlines need not be performed in the specific order listed. Once the student has achieved the required level of proficiency in an event and completed the required number of events, the events will be practiced on an as-needed basis for the remainder of that phase of instruction.

5-2. All mission briefings will commence 1.5 hours prior to the scheduled takeoff time with the following exceptions: 2.5 hours for TR 1, IQI, TQFE; 2 hours for TR 2, SA 1, SA 4, ASC 1, 2, 5, and 7. Students will have completed all premission planning prior to the briefing.

5-3. All missions are programmed to be dual except NAV 3 and ASC 5 which will be solo. Touch and go landings are authorized on all dual missions. Instructors will annotate the student gradebook when the student is cleared to fly solo.

5-4. Students on marginal student status will not fly solo when placed on marginal student status for deficiencies in basic flying skills.

5-5. All missions are programmed for a 2.0 hour sortie length.

5-6. Alternate Mission profiles are limited to maneuvers, mission events and/or mission profiles that have been flown on a previous syllabus training sortie.

5-7. FWS texts will not be used as source documents for developing or describing airborne maneuvers, teaching techniques or tactics until approved by TAC for incorporation in syllabi or supporting Phase Manuals.

SECTION B: INITIAL QUAL MODULE

TRANSITION (TR)

5-8. SPECIAL INSTRUCTIONS

a. Students will normally fly with their assigned instructor throughout this phase. Deviations must be approved by the Operations Officer or Squadron Commander.

b. Students will be briefed on bailout, crash landing, and emergency ground egress prior to their first flight.

c. The following minimum number of instrument approaches will be flown prior to the IQI.

NDB	5
TACAN	2
PAR (if available)	1
ASR (if available)	1
VOR	2
ILS	4
Circling Approach	1
Partial Panel (VMC)	1
SSE Instrument Approach	3 (one must be a nonprecision)

TR 1-7 MISSION OBJECTIVES: Perform transition maneuvers IAW DASH-1 and Phase Manual. Perform basic and advanced instrument maneuvers IAW FLIP and AFM 51-37. Attain proficiency levels described in paragraph 2-1.

- | | | |
|--|---------------------------|----------------------------|
| TR 1 | Aircraft: 1
Crew: P/IP | Time: 2.0
Config: Clean |
| <p>Ground Ops, start, taxi, takeoff, climb, cruise, power-on stalls, traffic pattern stalls, Slow Flight, Steep Turns, Chandelle, Lazy Eight, SSE maneuvering (at min SE control speed OV-10 Only), descent, instrument approach (optional), overhead traffic pattern, partial flap landing, no flap landing, full flap landing (0-2A Only), closed traffic, reversing procedures (OV-10 Only), after landing checks, engine shutdown.</p> | | |
- | | | |
|---|---------------------------|----------------------------|
| TR 2 | Aircraft: 1
Crew: P/IP | Time: 2.0
Config: Clean |
| <p>TR 1 events as necessary plus: Instrument cockpit check, aerobatics (OV-10 Only: Aileron Roll, Barrel Roll, Cloverleaf, Loop, Cuban Eight, Immelmann, Split "S", Vertical Recovery), SFL (0-2A Only), SSE landing, basic instruments, instrument approaches (time permitting).</p> | | |
- | | | |
|--|---------------------------|----------------------------|
| TR 3 | Aircraft: 1
Crew: P/IP | Time: 2.0
Config: Clean |
| <p>TR 1-2 events as necessary plus: instrument steep turns, unusual attitude recoveries, fix-to-fix, instrument approaches with holding, as available: NDB, TACAN, VOR, ILS, GCA; SSE Go Around.</p> | | |
- | | | |
|---|---------------------------|----------------------------|
| TR 4 | Aircraft: 1
Crew: P/IP | Time: 2.0
Config: Clean |
| <p>TR 1-3 events as necessary plus: Advanced handling, Max Performance Climb (0-2A Only), circling approach, short field landing (0-2A only).</p> | | |
- | | | |
|---|---------------------------|----------------------------|
| TR 5 | Aircraft: 1
Crew: P/IP | Time: 2.0
Config: Clean |
| <p>TR 1-4 events as necessary plus: DD-175 and AF Form 70 preparation, partial panel approach, SSE Instrument Approaches.</p> | | |
- | | | |
|---|---------------------------|----------------------------|
| TR 6 | Aircraft: 1
Crew: P/IP | Time: 2.0
Config: Clean |
| <p>TR 1-5 events as necessary plus: 45° traffic pattern entry; SSE reversing procedures (OV-10 Only).</p> | | |
- | | | |
|--|---------------------------|----------------------------|
| TR 7 | Aircraft: 1
Crew: P/IP | Time: 2.0
Config: Clean |
| <p>Practice Transition events as necessary, min run landing on 2500-4000 ft R/W (0-2A only, demonstration and practice).</p> | | |

IQI MISSION OBJECTIVES: Demonstrate proficiency in cross section of TR 1-7 mission tasks.

IQI Aircraft: 1 Time: 2.0
Crew: P/FE Config: Clean

Initial Qualification/Instrument Flight Evaluation IAW AFR 60-1 and TACR 60-2. The following areas will be evaluated: General Knowledge, emergency procedures knowledge, ground ops, takeoff, climb, instrument departure, inflight navigation, slow flight, power on stalls, traffic pattern stalls, instrument steep turns, unusual attitude recoveries, Lazy Eight and/or Chandelle, cross section of aerobatic maneuvers (OV-10 Only), SSE Go Around, fix to fix, instrument holding, ILS approach, at least one nonprecision approach, missed approach, SSE instrument approach, overhead traffic pattern, partial flap landing, no flap landing, full flap landing (O-2A Only), SSE landing, closed pattern, SSE reversing (OV-10 Only), Bold Face EPs and emergency ground egress in a static aircraft following the flight.

SECTION C: MISSION QUAL MODULE

5-9. SPECIAL INSTRUCTIONS

a. ASC 1 through ASC 5 will normally be flown with the same instructor pilot. On other missions students will generally be scheduled with different instructors to expose them to a variety of techniques.

b. Students are required to qualify in high angle rocket deliveries (three out of any six consecutive scores must be 30 meters or less). Strafe (OV-10 Only), and log and/or flare drop are conducted for familiarization only.

c. Airstrike Control missions are designed to present the entire spectrum of FAC procedures to the student from basic FAC techniques during low threat missions to FAC-A coordination during high threat missions. The rate that the student progresses through these missions will be tailored to his capabilities.

d. Actual fighter aircraft will be controlled on at least four ASC missions for previous fighter background students and on at least five ASC missions for nonfighter background students. (Fighters controlled on the TQFE count towards this requirement). Grade slips will indicate the type and number of aircraft controlled. When no fighter support is available, IPs may fly the Direct Support Sorties allocated on page 1-2 to simulate fighter aircraft.

e. NAV/VR will be accomplished on all ASC missions (time permitting).

f. Threat knowledge will be briefed and graded on all mission qual sorties.

g. The following events will be accomplished during this phase. Where the required number is more than one, a proportionate share should be accomplished on each mission.

EVENT	NUMBER REQUIRED
ORDNANCE DELIVERY	
Rocket Qualification	1
Standoff Rocket Delivery (FAM Only)	1
Strafe (OV-10 FAM Only)	1
45° Rocket Delivery (OV-10 FAM Only)	1
Flare and/or Log Drop (FAM Only)	1
Night Rocket Delivery (FAM Only)	1

OPTIMUM PERFORMANCE MANEUVERS

Min Run Takeoff	4
Optimum Performance Landing (OV-10 Only)	4
Min Run Landing (O-2A Only, two must be accomplished on 2500-4000 ft R/W)	4

INSTRUMENT TRAINING

GCA (if available)	2
NDB	2
TACAN	1
ILS	1
VOR	1
SSE Instrument Approach	2
Missed Approach	1

MISCELLANEOUS

SFL (O-2A Only)	3
SSE Landing	4
SSE Landing with SE Reversing (OV-10 Only)	2
SSE Go-Around	2
Traffic Pattern Stalls	2
FM Homing	1
UHF/ADF Steer (OV-10 Only)	1
TACAN Air-to-Air	1
Advanced Handling Characteristics	1
Tactical Navigation	3
Lost Wingman	1

NAVIGATION (NAV)

NAV 1-3 MISSION OBJECTIVES: Perform area navigation using 1:250,000 scale maps. Locate targets to within 100 meters using 1:50,000 scale maps.

NAV 1 Aircraft: 1 Time: 2.0
Crew: P/IP Config: Clean

Medium altitude 1:250,000 navigation on preplanned route. Medium altitude 1:50,000 navigation (preplanned).

NAV 2 Aircraft: 1 Time: 2.0
Crew: P/IP Config: Clean

Medium altitude 1:250,000 navigation on impromptu route. High altitude (binnoculars if available) navigation using 1:50,000 scale map. Low altitude (below 1500 ft AGL/above 500 ft AGL in MOA) 1:50,000 navigation. Impromptu medium altitude navigation using 1:50,000 scale map. Given coordinates locate points on the ground. Determine coordinates of given ground points.

5-10. NAV-3 SPECIAL INSTRUCTIONS: The instructor pilot who flew NAV-2 with the student is responsible for briefing this mission and for completing the gradesheet.

NAV 3

Aircraft: 1
Crew: P

Time: 2.0
Config: Clean

Medium altitude 1:250,000 and 1:50,000 navigation on preplanned route.
Locate and describe what is on the ground from sets of given coordinates.

SURFACE ATTACK (SA)

5-11. SURFACE ATTACK SPECIAL INSTRUCTIONS: SA 1b will be flown if the student fails to qualify in high angle rocket deliveries on SA 1a. If SA 1b is flown, it is flown in lieu of ASC 10.

SA 1a-1b MISSION OBJECTIVES: Qualify in high angle rocket deliveries. Practice strafe (OV-10 Only) and standard formation events.

SA 1a-1b Aircraft: 4 Time: 2.0
Crew: IP; P/IP; P/IP; P/IP Config: OV-1, 02-1

Staggered takeoff, formation departure, rejoin, fingertip, route, crossunder, echelon, lost wingman, turning rejoin, straight-ahead rejoin, trail, wing approach (OV-10 Only), gear and flap exercise, high angle rocket deliveries, strafe (OV-10 Only).

SA 2 MISSION OBJECTIVES: Practice formation events and standoff rocket deliveries.

SA 2 Aircraft: 4 Time: 2.0
Crew: IP; P/IP; P/IP; P/IP Config: OV-4, 02-4

SA 1 formation events as necessary, two high altitude 30⁰, two medium altitude 20⁰, two low altitude level and two 500 ft AGL loft standoff rocket deliveries.

SA 3 MISSION OBJECTIVES: Practice tactical target marking on a tactical range.

SA 3 Aircraft: 1 Time: 2.0
Crew: P/IP Config: OV-4, 02-4

High angle target mark, low angle target mark, and standoff target mark on impromptu tactical targets.

SA 4 MISSION OBJECTIVES: Practice night formation events, log and/or flare drop, night rocket deliveries, and demonstrate proficiency in night traffic patterns and landings.

SA 4 Aircraft: 2 Time: 2.0
Crew: P/IP; P/IP Config: OV-6 or 7
02-6 or 7

Night ground ops, rejoin out of traffic, fingertip (OV-10 Only), route, trail, log and/or flare drop, tactical rocket deliveries, rectangular traffic pattern, partial flap landing, no flap landing, blackout landing, full flap landing (O-2A Only), 3 night landings required.

AIRSTRIKE CONTROL (ASC)

ASC 1-4 MISSION OBJECTIVES: Practice basic FAC techniques.

ASC 1 Aircraft: 2 Time: 2.0
Crew: P/IP; P/IP Config: Clean

Ground Commander coordination, preplanned target identification, fighter rendezvous, fighter briefing/target description, fighter control, observation position, fighter support (fighter support for student FAC).

ASC 2 Aircraft: 1 Time: 2.0
Crew: P/IP Config: OV-3
02-3

ASC-1 events plus: CRC/ASOC coordination, target mark, bomb damage assessment.

ASC 3 Aircraft: 1 Time: 2.0
Crew: P/IP Config: OV-3
02-3

ASC 1-2 events plus: impromptu target identification, troops-in-contact scenario, tactical navigation.

ASC 4 Aircraft: 1 Time: 2.0
Crew: P/IP Config: OV-3
02-3

ASC-1-3 events plus: standoff target marking, artillery coordination.

5-12. ASC 5 SPECIAL INSTRUCTIONS: The instructor pilot who cleared the student to fly ASC 5 (solo) will fly in the FAC aircraft "fighter support" flight and act as the ground commander. That same instructor pilot is also responsible for briefing the mission and for completing the gradesheet.

ASC 5 MISSION OBJECTIVES: Practice basic FAC techniques while working a flight of FAC aircraft simulating fighters.

ASC 5 Aircraft: 3 Time: 2.0
Crew: P; IP; IP Config: OV-3
02-3

ASC 1-4 events as time and scenario permits.

ASC 6 and 7 MISSION OBJECTIVES: Introduce and practice high threat FAC techniques.

ASC 6 Aircraft: 1 Time: 2.0
Crew: P/IP Config: OV-3
02-3

Prestrike coordination (CRC, ASOC, F-FAC, etc), Comm Jam Countermeasures, FAC-A procedures, high threat fighter briefing, standoff target marking as applicable, artillery coordination.

ASC 7 Aircraft: 1 Time: 2.0
 Crew: P/IP Config: Clean

ASC 6 events plus: impromptu attack geometry, multiple strike flights scenario.

5-13. ASC 10 SPECIAL INSTRUCTIONS: This mission is optional. When flown, it will be used to increase pilot proficiency in areas in which he lacks expertise. If SA-1b (rocket qualification) was flown, ASC-10 is no longer an authorized syllabus sortie.

ASC 8-10 MISSION OBJECTIVES: Develop proficiency in basic and high threat FAC techniques.

ASC 8-10 Aircraft: 1 Time: 2.0
 Crew: P/IP Config: OV-3, 02-3

ASC 1-7 events as required.

MISSION QUAL EVAL (TQFE) MISSION OBJECTIVES: Demonstrate proficiency in basic and high threat FAC techniques.

TQFE Aircraft: 1 Time: 2.0
 Crew: P/FE Config: OV-3, 02-3

Tactical Qualification Flight Evaluation IAW TACR 60-2. The following areas will be evaluated: General knowledge, Emergency procedure knowledge, Transition events as applicable, NAV/VR, target acquisition, coordination, fighter rendezvous, pre-attack briefing, target marking, armament system operation, strike control, strike damage assessment (threat permitting), strike weapons utilization, inflight checks, Comm/IFF/SIF, VFR traffic patterns and landings, closed pattern, airmanship.