



DEPARTMENT OF HOMELAND SECURITY  
**United States Coast Guard Auxiliary**  
**National Aviation Operations**

**Instructor Pilot / Flight Examiner Syllabus**

- Ref:** (a) **Auxiliary Aviation Program, COMDTINST 16798.1 (January, 1997)**  
(b) **Auxiliary Manual, COMDTINST M 16790.1 (series)**  
(c) **Auxiliary Operations Policy Manual, COMDTINST M16798.3 (series)**  
(d) **Air Operations Training Text, COMDTINST M16798.5 (series)**  
(e) **Federal Aviation Regulations, Part 91**

**1. Purpose.**

Auxiliary Aviation is organized under Commandant Instruction 16798.1 (ref. (a)). Section (5e) of this Instruction provides for qualification of Auxiliary Instructor Pilots and Flight Examiners, and requirements for these positions are delineated.

Prerequisites for both these positions require completion of an “Auxiliary and Commandant (G-OCX-2) approved flight and ground syllabus”. This syllabus (section 3, below) is the basis for completion of this qualification.

**2. Implementation**

This syllabus is divided into Instructor Pilot / Flight Examiner flight and ground segments.

To complete this element of their qualifications, Instructor Pilots and Flight Examiners must complete both the flight and ground sections.

Training and sign-offs for syllabus elements for Instructor Pilot candidates shall be made by a member of the Flight Examining Board in the district for which qualification is sought.

For qualification as a Flight Examiner, sign-offs for the syllabus shall be made by the Senior Member of the Flight Examining Board in the district for which qualification is sought.

3. Syllabus

**A. Instructor Pilot / Flight Examiner Syllabus – Ground**

Item	Description	Ref	Date Passed	FEB (sign)
<b>A</b>	<b>Organization</b>			
1	Describe the organization of the Auxiliary Aviation Program, including: 1. District Aviation Board 2. Flight Examining Board 3. Role of the IP and FE	a		
2	Describe the requirements to enter the Auxiliary	b		
3	Describe the requirements to enter the Aviation Program	c		
4	Describe the requirements for Observer qualification	c		
5	Describe the three levels of Pilot qualification. Detail the flight hours required, the FAA currency and qualifications for each level 1. Co-Pilot 2. First Pilot 3. Aircraft Commander	c, d		
6	Discuss the annual currency maintenance requirements for the three levels of pilot qualification. Include flight hours, workshops, swim tests, egress and other training 1. Observer 2. Co-Pilot 3. First Pilot / Aircraft Commander	c, d		
7	Discuss the minimum set of training materials needed for aircrew training and qualification	a, b c		
<b>B</b>	<b>Administration</b>			
1	Accurately fill out a sample of the following: 1. Mission Activity Report 2. Auxiliary Patrol Order 3. SAR Incident Report 4. Flight/Radio Log	d		
2	Describe the relationship between FAA regulations and flight under Coast Guard orders	c, e		
3	Describe the crew fatigue standards	c		

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4	Describe the three facility operational states	c		
5	Describe the prerequisites to accepting mission orders, including	b, c		
	1. facility qualification			
	2. pilot qualifications			
	3. facility operational readiness			
4. crew readiness				
6	Discuss when mission orders may be refused, and why	b, c		
<b>C</b>	<b>Operations</b>			
1	Describe minimum weather conditions for various missions	c, e		
2	Discuss the procedure for unexpected IMC conditions, both prior to flight and during a mission	c		
3	Communications: Simulate an aviation mission and demonstrate:	c, d		
	1. An underway call			
	2. An "operations normal" call			
	3. A securing mission call			
	4. A changing "guard" stations sequence			
5. Calling Auxiliary vessels and Coast Guard vessels				
4	Describe the standard mission profiles and requirements, including:	c, d		
	1. ATON			
	2. ELT			
	3. FAM			
	4. Logistics			
	5. MEP			
	6. SAR			
	7. Multi-Mission Patrol			
8. Harbor Patrol				
5	Search Patterns: Describe when to use the following, and their characteristics:	d		
	1. Trackline Pattern			
	2. Parallel Track Pattern			
	3. Creeping Line Pattern			
	4. Sector Pattern			
5. Expanding Square Pattern				
6	Mission Preparation Describe and select elements needed for a simulated mission,	d, e		

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	with all flight planning, including:			
	1. Appropriate charts, VFR and IFR			
	2. Aircraft handbook, W&B tables, etc.			
	3. Weather briefing(s)			
	4. Mission briefings			
	5. PPR (as required)			
	6. Accurately prepare and fill out a flight plan			
<b>D</b>	<b>Mission</b>			
1	Simulate a full mission briefing for a crew, including the following:	c, d		
	1. Air Station contacts			
	2. CG Group/Activities contacts			
	3. Information as to nature of mission			
	4. Information as to crew and passengers			
	5. Estimated times of mission			
	6. Station(s) holding guard			
	7. Reporting requirements			
	8. Weather briefing			
	9. Charts and flight path details, including terminal areas, restricted areas and classes of airspace			
	10. Fuel on board and reserves			
2	Discuss the duties and responsibilities of the crew members, including the PIC and observers and their relationships			

**B. Instructor Pilot / Flight Examiner Syllabus - Flight**

<b>A</b>	<b>Preflight</b>			
1	Demonstrate a proper preflight inspection of the aircraft	e		
2	Demonstrate a proper crew briefing, including:	c, d		
	1. Safety equipment			
	2. Crew position and duties			
	3. Crew resource management			
	4. Emergency procedures, including use of PFDs, ditching, deployment of life raft(s), and emergency signaling.			
3	Discuss and demonstrate proper planning, including:	d		
	1. Go / No Go decision criteria involved			
	2. Runway length factors			
	3. Density altitude			

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	4. Weight and Balance			
	5. Liftoff and climb speeds			
	6. Risk assessment and management			
	7. Fuel management			
4	Discuss and demonstrate proper IFR flight planning, including:	e		
	1. Use of enroute charts			
	2. Selection and use of approach charts			
	3. Complete weather briefing and analysis of its impact on flight			
5	Discuss and systems of the typical Auxiliary aircraft:			
	1. Pitot-static system and instruments			
	2. Electrical and hydraulic, including landing gear extension and retraction			
	3. Communications			
	4. Fuel			
	5. Navigation			
6	Discuss flight regimens for Auxiliary missions for typical Auxiliary aircraft, including:	c, d, e		
	1. Slow flight			
	2. Maneuvers around a point on the surface			
	3. Landing at civilian and military fields			
	4. Establishment and maintenance of operational communications on both aviation and Coast Guard frequencies			
	5. Short- and soft-field landings			
	6. Maximum rate and angle of climb			
	7. Maintenance of situational awareness			
	8. Spatial orientation/disorientation			
	9. Low level procedures			
7	With use of the hand book for the individual aircraft, review the following:			
	1. Take Off - short, soft field			
	2. Climb Out – Best rate of climb and angle of climb			
	3. Turns			
	4. Slow flight			
	5. Descent to landing, including normal approach speeds			

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8	With use of the hand book for the individual aircraft, review V Speeds: 1) Va (maneuvering speed)			
	2) Vso (stall, landing conf. power off)			
	3) Vsi (stall, cruise conf. power off)			
	4) Vy (best rate of climb, sea level)			
	5) Vx (best angle of climb, sea level)			
	6) Vmc (minimum control speed - multi-engine only)			
	7) Best glide speed			
	8) Glide distance ratio			
<b>B</b>	<p><b><u>Flight</u></b></p> <p><b>For flight portions of this syllabus, the successful conclusion of each procedure or maneuver must never be in doubt.</b></p> <p><b>Each procedure or maneuver must be completed <u>without compromising safety at any time.</u></b></p> <p><b>Any simulated emergencies must be conducted at an altitude that permits normal recovery and normal continuation of flight.</b></p>			
1	Successfully demonstrate the following: 1. Pre-flight of aircraft and systems			
	2. Proper procedures for engine start and run-up			
	3. Setting and monitoring of gauges and instruments			
	4. Proper taxi procedures			
	5. Proper communications procedures for all phases of flight			
	6. Use of check list			
	7. Take-offs, both standard and maximum performance			
	8. Proper traffic pattern procedure			
	9. Climb-out at best rate and angle of climb			
	10. Air speed control, including flight at minimum controllable airspeed			
	11. Altitude control, including in circling patterns			
	12. Landings, including standard, soft-field and short-field			
	13. Response to simulated emergency situations, including in-flight fire, electrical failure and engine failure.			
	14. Approach to landing			
	15. Entry to traffic patterns			

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	16. Landings - normal, short- and soft-field			
	17. Taxi-ing and securing of aircraft			
2	Demonstrate flight using the following search procedures, with proper entrance, execution and exit : 1. Sector pattern	d		
	2. Expanding square			
	3. Trackline			
	4. Parallel track			
3	Demonstrate simulated IFR flight and procedures, including: 1. Enroute instrument flight	e		
	2. Holding patterns			
	3. Approaches, including at least one precision and one non-precision approach.			

4. Approvals

This is to certify that \_\_\_\_\_ Member # \_\_\_\_\_  
has been approved for recommendation as:

Instructor Pilot \_\_\_\_\_ Flight Examiner \_\_\_\_\_

\_\_\_\_\_  
Signature / Member # Date

\_\_\_\_ Flight Examiner

\_\_\_\_ Senior Member of the FEB (required for designation as Flight Examiner)

\_\_\_\_\_  
Flight Examiner Board Date

\_\_\_\_ Approved

\_\_\_\_ Disapproved

\_\_\_\_\_  
Director of Auxiliary, District \_\_\_\_\_ Date