CURRICULUM SEGMENT: BASIC INDOCTRINATION

<u>OBJECTIVE</u>: To introduce the new-hire pilot to the company and its manner of conducting operations in air transportation, to acquaint the pilot with the company's policies, procedures, forms, organizational and administrative practices, and to ensure the pilot has acquired basic airman knowledge.

INSTRUCTIONAL DELIVERY METHODS: TRAINING AIDS/COURSEWARE: Lecture Classroom Equip./Ref. Docs/Computer Training Aids Written/Oral Exam

TESTING/CHECKING:

OPERATOR SPECIFIC

A. DUTIES AND RESPONSIBILITIES

- 1. Company History, Organization, and Management Structure
- 2. Operational Concepts, Policies, and Kind of Operation
- 3. Company Forms, Records, and Administrative Procedures
- 4. Employee Standards and Rules of Conduct
- 5. Employee Compensation, Benefits, and Contracts
- 6. Authority and Responsibilities of Duty Position
- 7. Company Required Equipment
- Appropriate Portions of Company Operating Manual, Organization, Revisions, and Employee Responsibilities Concerning Manuals
- 9. Operational Control

B. APPROPRIATE PROVISIONS OF THE FEDERAL AVIATION REGULATIONS

- 1. Pilot Certification, Training, and Qualification Requirements
- 2. Medical Certificates, Physical Examination, and Fitness for Duty Requirements
- 3. Flight Control Requirements (Flight-Locating)
- 4. Flight Duty and Rest Requirements
- 5. Record Keeping Requirements
- 6. Operational Rules in Parts 61, 91, 135 and Any Other Applicable Regulations
- 7. Regulatory Requirements for Company Manuals
- 8. Other Appropriate Regulations Such as Flight crew Emergency Authority, Interference with Crewmembers, and Reporting Requirements

C. CONTENTS OF CERTIFICATE AND OPERATIONS SPECIFICATIONS

- 1. Regulatory Basis in Part 135 and The FA Act of 1958
- 2. Definitions, Descriptions, and Organization of Operations Specifications
- 3. Limitations and Authorizations of Operations Specifications
- 4. Description of Certificate
- 5. Description of FAA Certificate Holding District Office and Responsibilities of FAA Principal Inspectors

D. EMPLOYEE ASSISTANCE PROGRAM

AIRMAN SPECIFIC

A. COMPANY FLIGHT CONTROL

- 1. Flight Locating System and Procedures
- 2. Organization, Duties, and Responsibilities
- 3. Weather and NOTAM Information
- 4. Company Communications

B. WEIGHT AND BALANCE

- 1. Definitions (such as empty weight, moments, and inches of datum)
- 2. General Loading Procedures and Center of Gravity Computations
- 3. Effects of Fuel Burn and Load Shifts in Flight
- 4. Weight and Balance Forms, Load Manifests, Fuel Slips, and Other Applicable Documents

C. AIRCRAFT PERFORMANCE

- 1. Definitions (such as height/velocity curve and maximum endurance)
- 2. Effects of Temperature and Pressure Altitude
- 3. Power Check Procedures
- 4. Rate of Climb
- 5. Operations and Allowable Relative Wind
- 6. IGE and OGE Hover Ceilings and Charts.

D. METEOROLOGY

- 1. Basic Weather Definitions (such as forecasts, reports, and symbols)
- 2. Temperature, Pressure, and Winds
- 3. Atmosphere, Moisture, and Clouds
- 4. Air Masses and Fronts
- 5. Thunderstorms, Icing, Wind shear and Micro-Burst
- 6. Reduced Visibility including Fog
- 7. Knowledge & procedures for:
 - a. Recognizing, avoiding, and escaping severe weather situations (including inadvertent IMC encounter)
 - b. Recognizing Cold weather conditions.
 - C. Recognizing flat-light, whiteout, and brownout conditions.

E. NAVIGATION

- 1. Definitions (such as wind correction angle or magnetic north)
- 2. Basic Navigation Instruments
- 3. Dead Reckoning and Pilotage Concepts and Procedures
- 4. Navigational Aides
- 5. GPS systems when required.

F. AIRSPACE AND ATC PROCEDURES

- 1. Definitions (such as SFRA, Airways, and ATIS)
- 2. Description of Airspace
- 3. Navigational Performance and Separation Standards
- 4. Controller and Pilots Responsibilities
- 5. ATC Communications Procedures (Normal and Emergency)
- 6. Air traffic flow control
- 7. Monitoring of ATC for Traffic Avoidance

G. ENROUTE AND TERMINAL AREA CHARTING AND FLIGHT PLANNING

- 1. Terminology of Charting Services (Such as Jeppesen, NOAA)
- 2. Minimum Cloud Clearances and Visibility Requirements
- 3. General Company Flight Planning Procedures
- 4. Flight Service Procedures
- 5. Airport Diagrams

H. CREW RESOURCE MANAGEMENT

- 1. Situational Awareness
- 2. Workload and Time Management
- 3. Communication
- 4. Aeronautical Decision Making
- 5. Authority of the PIC
- 6. Building the Team
- 7. Fatigue
- 8. Stress

I. Safety Management System

CURRICULUM SEGMENT: AIRCRAFT GROUND EC-130 INITIAL-B4/T2 DIFFERENCES

<u>OBJECTIVE</u>: To develop the necessary pilot knowledge for understanding the basic functions of aircraft systems, the use of the individual systems components, the integration of aircraft systems, and operational procedures.

INSTRUCTIONAL DELIVERY METHODS: TRAINING AIDS/COURSEWARE: TESTING/CHECKING: Lecture Classroom Equip./Ref. Docs. Written Exam

GENERAL OPERATIONAL SUBJECTS

A: FLIGHT LOCATING PROCEDURES (REFERENCE OPS MANUAL, FLIGHT PLANS) 1. Company Flight Following Procedures

B: WEIGHT AND BALANCE

- 1. Company Procedures
- 2. Company Forms

C: ADVERSE WEATHER PRACTICES

- 1. Icing
- 2. Turbulence
- 3. Thunderstorms with Associated Wind shear and Microburst Phenomena
- 4. Low Visibility
- 5. Contaminated Landing Areas

D: COMMUNICATION AND NAVIGATION EQUIPMENT

- 1. Company Communication Requirements
- 2. ATC Clearance and Monitoring Requirements
- 3. Area Departure and Arrival Requirements
- 4. En-Route Requirements
- 5. Approach and Landing Requirements

E: PERFORMANCE CHARACTERISTICS DURING ALL FLIGHT REGIMES

- 1. The Use of Charts, Tables, and Other Related Manual Information Including The Aircraft Flight Manual
- 2. Normal, Abnormal, and Emergency Performance Problems Including Fuel Consumption and Cruise Power Settings
- 3. Meteorological and Weight-Limiting Performance Factors (Such As Temperature, Pressure, or Precipitation
- 4. Inoperative Equipment Performance Limiting Factors (Such As MEL)
- 5. Special Operational Conditions (High Altitude Airports and Confined Areas)

AIRCRAFT SYSTEMS

A: AIRCRAFT GENERAL

- 1. Dimensions
- 2. Turning Radius
- 3. Panel Layout
- 4. Cockpit And Cabin Configurations
- 5. Other Major Systems And Components Or Appliances

B: POWERPLANT

- 1. Basic Engine Description
- 2. Engine Horsepower Rating
- 3. Accessory Drives
- 4. Ignition
- 5. Oil System
- 6. Fuel System
- 7. Bleed Air
- 8. FADEC Systems

C: ELECTRICAL

- 1. Generator
- 2. External Power
- 3. Electrical System Schematic
 - a. Buses
 - b. Circuit breakers
 - c. Fuses
- 4. Battery

D: HYDRAULIC

- 1. Reservoir
- 2. Pump
- 3. Hydraulic System Schematic
- 4. Filters
- 5. Check Valves
- 6. Actuators
- 7. Hydraulically Operated Components

E: FUEL

- 1. Fuel Tank
- 2. Pumps (Engine-Driven and Boost Pumps)
- 3. Valves
- 4. Fuel System Schematic
- 5. Quantity Indicator

F: PNEUMATICS

- 1. Bleed Air Source
- 2. Bleed Air System Schematic
- 3. Valves
- 4. Ducts

G: AIR CONDITIONING

- 1. Heaters
- 2. Air Conditioning System Schematic
- 3. Fans

H: FLIGHT CONTROLS

- 1. Primary Controls (Cyclic, Collective, and Anti-Torque)
- Means of Actuation (Direct/Indirect) 2.

I: LANDING GEAR

Landing Skids and Vibration Dampening System Schematic 1.

J: ICE AND RAIN PROTECTION (IF APPLICABLE)

- Anti-icing and deicing systems 1.
 - a. Engines
 - b. Pitot-static probes
- 2. Systems schematics
- 3. Pneumatic/electrical valves

ĸ: EQUIPMENT AND FURNISHINGS

- Exits 1.
- 2. Cargo Areas
- 3. Pilot and Passenger Seats
- 4. Seating and/or Cargo Configurations
- 5. Non Emergency Equipment and Furnishings

NAVIGATION EQUIPMENT L:

- 1. Navigation receivers
 - a. VOR
 - b. GPS
- 2. Functional displays
- Transponder 3.
- Fault indications 4.

FLIGHT INSTRUMENTS M:

- 1. Overview of Panel Arrangement
- 2. Sources of Power (Electrical, Pneumatic and Pitot-Static)

- Attitude Indicator
 Heading Indicator
 Airspeed Indicator
- Vertical Speed Indicator
 Altimeter

- 1. VHF/FM Radio
- 2. Audio Panels
- 3. Intercom and Audio Entertainment System

0: WARNING SYSTEMS

- 1. Aural and Visual Warning Systems
 - a. Character and degree of urgency related to signal
- 2. Warning and Caution Annunciator Systems

P: FIRE DETECTION

- Visual and/or Aural Indications of Fire or Overheat 1.
 - a. Overheat sensors
 - b. Fire detection system schematic

LIGHTING Q:

- 1. Cockpit
- 2. External
- 3. Power Sources
- 4. Switches
- 5. Spare Bulbs

EMERGENCY EQUIPMENT R:

- 1. Type (first aid kits, life preservers, and survival kits)
- Location of Each
 Purpose of Each

AIRCRAFT SYSTEMS INTEGRATION

A: USE OF CHECKLIST

- 1. Safety Checks
- 2. Cockpit Preparation
- 3. Checklist Utilization
- 4. Checklist Sequence

B: FLIGHT PLANNING

- 1. Performance Limitations
 - A. Meteorological
 - B. Weight
 - C. MEL Items
- 2. Required Fuel Loads
- 3. Weather Planning

C: NAVIGATIONAL SYSTEMS

- 1. Preflight preparation
- 2. Operation
- 3. Flight planning requirements

D: COCKPIT FAMILIARIZATION

- 1. Activation of Aircraft Systems Controls and Switches
 - a. Normal
 - b. Abnormal
 - c. Emergency
 - Annunciators

2.

- a. Lights
- b. Other caution and warning systems

E: CREW RESOURCE MANAGEMENT / HUMAN FACTORS

- 1. Additional Resources in Single Pilot Operations
- 2. Situation Awareness
 - a. Reality versus perceptions of reality
 - b. Fixation
 - c. Monitoring
 - d. Incapacitation
- 3. Problem Solving/Decision Making/Judgment
 - a. Conflict resolution
 - b. Review
- 4. Team Management
 - a. Team building
 - b. Managerial skills
 - c. Authority
 - d. Barriers
 - e. Workload management
- 5. Stress Management
 - a. Fitness to fly
 - b. Fatigue
 - c. Incapacitation
- 6. Team Review
 - a. Pre-mission analysis and planning
 - b. Critique
 - c. Ongoing review
 - d. Post-mission
- 7. Interpersonal Skills
 - a. Listening
 - b. Conflict resolution

CURRICULUM SEGMENT: FLIGHT TRAINING - PIC HELICOPTER EC-130

<u>OBJECTIVE</u>: To develop the necessary pilot skills and knowledge to perform the duties and responsibilities of PIC and operate the aircraft to the desired standards.

INSTRUCTIONAL DELIVERY METHOD:	Instruction/Demonstration/Practice
TRAINING AIDS:	Stationary Aircraft
COURSEWARE:	Lesson Plan, A.F.M.,
	Maneuvers/Procedures Doc.
TESTING/CHECKING:	Evaluation, Progress Check

A. PREPARATION

- 1. Visual Inspection
- 2. Pre-taxi procedure
- 3. Performance Limitations

B. SURFACE OPERATION

- 1. Starting/Rotor Engagement
- 2. Lift-To-Hover IGE/OGE
- 3. Hover Turns IGE/OGE
- 4. Sideward/Rearward Hovering
- 5. Slope Operations
 - A. Liftoff
 - B. Landing

C. TAKEOFF

- 1. Normal
- 2. Obstacle Clearance
- 3. High altitude
- 4. Rejected Takeoff

D. CLIMB

- 1. Normal
- 2. Best Rate
- 3. Best Angle

E. EN ROUTE

- 1. Medium-Banked Turns
- 2. Low Speed Characteristics
- 3. High Speed Characteristics

F. DESCENT

- 1. Normal
- 2. Maximum Rate
- 3. Autorotative Glide

G. APPROACHES

- 1. VFR Procedures
 - A. Normal
 - Obstacle Clearance в.
 - C. High Altitude
 - D. Elevated Landing Site
 - E. Rejected Landing (Go around)

н. LANDINGS

- 1. Normal
- Crosswind 2.
- AFTER LANDING I.
 - 1. Taxiing
 - 2. Parking

 - Stopping the Rotors 3.
 - Emergency Evacuation 4.

UNPREPARED SITE OPERATIONS J.

- 1. Confined Areas
- 2. Pinnacles
- 3. Ridgelines

OTHER FLIGHT PROCEDURES DURING ANY AIRBORNE PHASE к.

- 1. Holding
- 2. Ice Accumulation on Airframe
- Air Hazard Avoidance 3.
- 4. Wind shear/Microburst

L. SYSTEMS PROCEDURES DURING ANY AIRBORNE PHASE (Normal or abnormal)

- 1. Air Conditioning
- 2. Fuel and Oil
- Electrical 3.
- Hydraulic 4.
- 5. Flight Controls
- б. Loss of Anti-Torque Effectiveness
- Flight Instrument System Malfunction 7.
- 8. Communications Equipment
- 9. Navigation equipment

SYSTEMS PROCEDURES TRAINING DURING ANY AIRBORNE PHASE (Emergency) м.

- 1. Aircraft Fires
- 2. Smoke Control
- Powerplant Malfunctions 3.
- 4. Electrical and Hydraulic Systems
- Flight Control Systems Malfunction 5.
- 6. Anti-Torque Failure
- 7. Settling-With-Power
- Autorotations
 FADEC Failure

CURRICULUM SEGMENT: QUALIFICATION

<u>OBJECTIVE</u>: To determine that a pilot has satisfactorily completed all required curriculum segments and to determine whether sufficient learning has occurred by the comparison or the pilot's performance, in practical situations, to established standards.

TESTING/CHECKING:

Each pilot required to train under a curriculum must complete the curriculum in its entirety.

All written examinations must be completed with a minimum score of 70% corrected to 100%. Subject areas found deficient will be reviewed and the pilot knowledge determined to be satisfactory. Such review will be documented by the instructor.

Satisfactory completion of flight training required events will be in accordance with the standards set forth in the Practical Test Standards FAA-S-8081-5(ATP), FAA-S-8081-2(COMM), and FAA-S-8081-4A(INST) as appropriate for the pilot certificate and rating required for the duty position assigned.

A pilot who fails to meet qualification objectives must continue training until those objectives are met, unless the pilot is removed from training status.

A pilot will become fully qualified to serve in a specific duty position in a specific aircraft upon satisfactory completion of the qualification segment requirements as follows:

BASIC CHECKING MODULE

PAGE

PIC Competency Check (CFR 135.293) Helicopters..... D-8.2

ADDITIONAL CHECKING MODULES

PIC Line Check (CFR 135.299) Helicopters..... D-8.4

PIC Route Check (SFAR 50-2) Helicopters..... D-8.5

BASIC CHECKING MODULE

Α. BASIC CHECKING MODULES FOR CFR 135.293 VFR COMPETENCY CHECK

The minimum events for a CFR 135.293 VFR competency check are listed in the columns marked "VFR COMP" in the table below.

BASIC CHECKING MODULE OUTLINES

EVENTS	VFR COMP.	TWIN HELI	NOTES
WRITTEN OR ORAL TEST			
GROUND OPERATIONS Preflight Inspection	X	Х	
Start Procedures	х	х	
Taxiing and Ground Hover	х	х	
Pre-Takeoff Checks	X	х	
TAKEOFFS AND DEPARTURES Normal	X	Х	
Emergency Deceleration	X	Х	1
INFLIGHT MANEUVERS Settling with power	X	X	Oral or Actual
Unusual Attitude Recovery	X	х	
Inadvertent IMC Procedure	Х	Х	2
LANDINGS AND APPROACHES TO LANDINGS Normal	X	Х	3, 4
Steep	X	х	3, 4
Shallow	x	x	3, 4
Go-Around	X	х	
ABNORMAL AND EMERGENCY PROCEDURES System Malfunctions	x	Х	Oral or Actual
Power failure & Autorotation to power recovery	X		
One Engine Inoperative Failures		X	
Hovering Autorotations	X		
Tail Rotor Failure	Х	Х	Oral Only
Dynamic Rollover	X	х	Oral Only
Low Rotor RPM	X	X	Oral Only
Anti-Torque System Failure	X	x	Oral or Actual
Confined Area/Pinnacle Operations	X	Х	
Slope Operations	Х	Х	

BASIC CHECKING MODULE OUTLINE - Continued.

NOTES

- 1 The performance characteristics of some non-transport helicopters may make the introduction of a simulated engine failure on takeoff a potentially hazardous situation. When conducting a flight check in such helicopters check airmen should use their authority to waive or modify this event.
- 2 Check Airmen shall ensure pilots accomplish this event in an aircraft they operate in revenue operations. The event should reflect a realistic course of action the pilot might take to escape from an inadvertent encounter with IFR conditions. When the pilot is authorized to operate an appropriately equipped aircraft and the check is conducted at a location where an ILS is operational, an ILS approach should be demonstrated. Check Airmen may also approve a letdown on partial panel when this would be an appropriate course of action.
- 3 The landings listed are required but may be combined when appropriate.
- 4 To be credited also as a line check qualification module the check must include the following:
 - VFR A flight conducted over at least one route segment to include takeoffs and landings at one or more airports.

LINE CHECK MODULE OUTLINE

- A. Terminal Security Procedures
- B. Aircraft Security and Anti-Hijacking Procedures
- C. Weather Forecasts and Information Sources
- D. Flight Planning
- E. Flight Following Procedures
- F. Cockpit Set-Up
- G. Weight & Balance Computation (including last minute changes)
- H. ATC Flow Control Procedures
- I. MEL & CDL Procedures
- J. Procedures for Fueling and Confirming Fuel Loads
- K. Familiarity with Major Terminal Areas
- L. Terminal and En Route Communications
- M. Flight Progress and Fuel Monitoring Procedures
- N. Inflight Weather Watch
- 0. Diversion Procedures

Subject: Loss of Lift at Altitude (Settling with Power)

References: FAA-H-8083-21 or Superseded

- 1. **Objective:** The demonstration of this maneuver will graphically show the dangerous results of operating at low airspeeds, moderate to high power settings and high rates of sink. It will also demonstrate the proper prevention and recovery from this phenomenon.
- 2. **Description:** The Phenomena Loss of Lift at Altitude-also known as settling with power is most dangerous when it happens at relatively low altitudes. It should be demonstrated at an altitude of at least 1000 feet AGL or, if applicable, the manufactures recommended altitude, whichever is higher upon completion of the maneuver.

To enter the maneuver, adjust the power to approximately 20% torque while maintaining altitude with aft cyclic, until the airspeed approaches 20 mph. Allow the sink rate to increase to 300 fpm or more as the attitude is adjusted, to obtain an airspeed of less than 10 mph. The aircraft will begin to shudder. Application of additional up collective will increase the vibration.

Since a well developed loss of lift of altitude can result in rates of sink in excess of 2000 fpm, prompt recovery should be initiated at the first signs.

There are two recovery techniques commonly used-the first is preferred because it results in the minimum loss of altitude during recovery. First apply forward cyclic to increase airspeed with simultaneous moderate reduction of power (collective). The recovery will be completed when the aircraft reaches effective translational lift airspeed (approximately 17 mph). Normal resumption of flight is recommended.

The second recovery techniques is the simplest, however, it is also the most costly in terms of altitude loss during recovery. The technique simply is to enter autorotation. Settling with power cannot occur or continue if the helicopter is in autorotation. As previously mentioned, the high rate of sink incurred by the autorotation at slow airspeeds coupled with high rate of sink developed in the maneuver itself will cause a loss of altitude in excess of 1000 feet or more during the recovery.

3. Acceptable Performance Guidelines: The trainee shall select an altitude that will allow recovery to be completed no less than 1000 feet AGL or, if applicable, the manufactures recommended altitude, whichever is higher, promptly recognizes and announces the onset of settling with power, and utilizes the proper recovery procedure.

Subject: Rapid Deceleration (Quick Stop)

References: FAA-H-8083-21 or Superseded

- 1. **Objective:** This maneuver develops precise coordination in the use of all cockpit controls while slowing the aircraft to a desired groundspeed, hover or landing.
- 2. **Description:** The maneuver is started with the aircraft headed into the wind at an altitude and an airspeed which will preclude: (1) Penetration of the shaded areas of the HEIGHT-VELOCITY diagram throughout the maneuver, and (2) Endangering the tail rotor during the flare.

With the aircraft in forward flight, aft pressure is applied to the cyclic to start the maneuver. Immediately, and simultaneously upon recognizing the resultant tendency to climb, the collective is lowered to prevent ballooning, and pedal is applied to maintain constant heading. As the airspeed decreases additional aft cyclic must be applied as necessary to prevent settling in the tail low attitude. As the desired groundspeed is approached, apply a small amount of forward cyclic. As the aircraft starts to settle, simultaneously apply UP collective and pedal to maintain heading and allow leveling, and gentle settling of the aircraft to a hover or to a vertical landing if desired.

3. Acceptable Performance Guidelines: The trainee must maintain RPM within normal limits, properly coordinate all controls throughout the execution of the maneuver, maintain an altitude that will permit safe clearance between the tail boom and the surface, decelerates and terminates in a stationary hover at the recommended hovering altitude, maintains heading throughout the maneuver, ±5 degrees.

Confined Area Operations

Subject: Steep Approach, Max performance Takeoff

References: FAA-H-8083-21 or Superseded

- 1. **Objective:** The above maneuvers are demonstrated by the instructor to acquaint the student with aircraft performance in critical areas where standard operation would not suffice.
- 2. **Description:** A confined area is an area where the flight of the helicopter is limited in some direction by terrain or the presence of obstructions, natural or manmade.

a. Steep Approach

In the steep approach into the wind, a high angle of descent is used. The degree of approach angle is decided by the height of obstacles to be flown over, by the airspeed and rate of descent that can be maintained, and by the amount of ground space into which the aircraft is to be maneuvered. The steep approach angle, airspeed and rate of descent are controlled in the same manner as the normal approach; that is, by close attention to adjustments of collective and cyclic controls. The amount of airspeed will usually be less than normal and will be dictated by the angle of descent and the amount of wind.

If the ground space is so short and the obstacles so high that the angle of approach necessary would result in airspeed less than 10 mph, extreme care must be exercised to avoid settling with power.

As the aircraft approaches the ground in a steep approach, the airspeed will be so slow, so the pilot must add collective a little earlier than in a normal approach.

b. Max Performance Takeoff

This maneuver is used when departing an area that is confined by natural or man -made obstructions. The takeoff should be made as close to a normal takeoff as possible considering the situation at hand. The Flight path during the takeoff should follow an imaginary line from the front of the helicopter, when in position for takeoff, to the top of the obstacle, allowing sufficient space for tip path plane clearance. Maximum use of ground space available must be made by placing the aircraft as far downwind as possible.

Confined Area Operations

Subject: Steep Approach, Max performance Takeoff - continued

References: FAA-H-8083-21 or Superseded

The collective is raised to make the aircraft "light on the landing gear." At this time the cyclic is moved slightly forward of neutral and collective is raised to a point that a gradual departure from the ground, along the desired flight path is obtained. If, during the takeoff, it becomes apparent that sufficient power is not available to clear the obstacle, the takeoff should be aborted.

In helicopters (turbine engine) with limited power, turbine temperature, Ng, T4, torque, and N2 speed must be monitored to eliminate exceeding the allowable limits. If during the takeoff, it becomes apparent that the obstacle will not be cleared without exceeding these limits, the takeoff should be aborted.

During the takeoff, the cyclic is adjusted so as to allow the aircraft to clear the obstacles, and anti-torque pedal is applied to maintain heading.

The entire maneuver is conducted into the wind, or as nearly so as possible to take advantage of the translational lift available.

Note: Prior to takeoff, it is important that the pilot note his takeoff position by a reference on the ground. This would be a guide, allowing him to land the aircraft at the takeoff point. This maneuver will initially be practiced in an open area until the trainee displays a high degree of proficiency.

3. Acceptable Performance Guidelines:

a. **Steep Approach:** The trainee shall consider situations where this maneuver is recommended and factors related to a steep approach, considers the wind conditions, landing surface, and obstacles, selects a suitable termination point, establishes and maintains the recommended approach angle (15 degrees maximum) and rate of closure, remains aware of the possibility of wind shear and/or wake turbulence, avoid situations that may result in settling-with-power, maintains proper ground track, arrives at the termination point, on the surface or at a stabilized hover, ±2 feet, and completes the prescribed checklist.

Confined Area Operations

Subject: Steep Approach, Max performance Takeoff - continued

References: FAA-H-8083-21 or Superseded

b. **Max Performance Takeoff:** The trainee shall consider situations where this maneuver is recommended and factors related to takeoff and climb performance, maintains RPM within normal limits, utilizes proper control technique to initiate takeoff and forward climb airspeed attitude, utilizes the maximum available takeoff power, after clearing all obstacles, transitions to normal climb attitude, airspeed, ±5 Kts, and power setting, remains aware of the possibility of wind shear and/or wake turbulence, maintains proper ground track, and completes the prescribed checklist.



QUESTION: The rate of descent is critical for the onset and development of settling with power. Which of the following is a rate of descent that would most likely result in settling with power?	EXTRA INFO
ANSWERS - SELECT ONE:	
1000 - 1500 FPM.	
100 - 200 FPM.	
400 - 800 FPM.	
200 - 300 FPM.	



30 degrees.

35 degrees.

40 degrees.



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Hazards of Flight

COMMENTS

HELP

Anything that involves high collective power settings in a hover or slow flight, such as high gross weight, high density altitude and maneuvers encourage the onset of settling with power.



QUESTION: Which of the following are recommended recovery techniques for settling with power?	EXTRA
ANSWERS - SELECT ONE:	
Enter autorotation.	
Aft cyclic to decrease airspeed.	
Fully increase collective.	
Cyclic forward to increase airspeed.	

While it is possible to recover from settling with power by entering autorotation, this technique may cause rotor overspeed and would be difficult to accomplish at low altitude. It is recommended that the cyclic be displaced forward and/or slightly to one side, to increase airspeed. After a brief pause to allow the airspeed to increase, power can be applied.

HELP

COMMENTS

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1 19:

