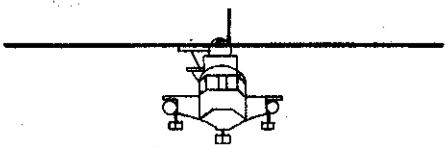

1550 ATTW

H3/P/SG

JANUARY 1978

MAIN CHAPTER 4's BEFORE FLYING

H-3

PILOT

STUDENT GUIDE

1550th Aircrew Training and Test Wing

AEROSPACE RESCUE AND RECOVERY SERVICE

FOR INSTRUCTIONAL PURPOSES ONLY

1340 BY Capt Mark

ATTW STUDENT GUIDE
H3P/SG

1550 ATTW (ARRS)
KIRTLAND AFB NM
January 1978

H-3 PILOT STUDENT GUIDE

F O R E W O R D

To accomplish today's helicopter mission, the professional pilot must have complete knowledge of the basic fundamentals, techniques and procedures for operation of his aircraft. This student guide is an introduction to this knowledge. It is designed to guide the student through training in a logical manner. Lesson flow, objectives, prerequisite and study requirements, supplemental information and source references are provided. A thorough knowledge of this student guide will be the first step in becoming a safe and precise helicopter pilot.

This student guide is intended to supplement rather than replace the aircraft flight manual and command directives. Every effort has been made to keep this student guide current and as closely aligned as possible to the flight manual and command directives. The slight differences which may be noted have been made to facilitate training.

The areas in this student guide that are part of the current Test Program will be annotated on the top of the page with the words, "Test Course."

This student guide will be reviewed in conjunction with the course evaluation schedule in 1550 ATTWR 51-1. Upon completion of the review a report will be submitted to DOTET IAW 1550 ATTWR 51-1. Any differences noted by the student between the material presented in the student guide and the information presented in the academic instruction, in the simulator or on the flight line should be reported to 1550 ATTW Training Division (DOT).

James R. Miears

JAMES R. MIEARS, Colonel, USAF
Deputy Commander for Operations

Supersedes H-3 Pilot Student Guide. October 1974. See page vii for Summary of Revised, Added, Deleted Material.
OPR: TTS/TTD
Distribution: X - Tech Training Library

C O N T E N T S

SUMMARY OF REVISED, DELETED OR ADDED MATERIAL

The simulator training has been revised to include additional instrument and emergency training and less transition and operational training. The operational flying phase of training has been reduced to one sling training mission and the navigation mission has been combined with the water operations training. The combat rescue test course has been incorporated into the rescue phase of training. The TAC course includes more heavyweight sling operations and low level navigation training. The training objectives for the academic phases have been extensively revised and updated, including more detailed information on aircraft systems. The Parameters/Tolerances table has been revised to reflect more accurate and realistic figures for evaluation of maneuvers. The flying phase includes more discussion and analysis of aircraft systems before each aircraft lesson. Academic modules covering the Albuquerque International Airport Familiarization, IFR Terrain Avoidance, F-111 Capsule Sling, M-60 Weapons, Combat Rescue: Preflight, Combat Rescue: Enroute, AN/ALE 20, and Helicopter Evasive Maneuvers have been added. The course numbers have been changed from 1025E1, 1025E2, etc., to H3P1, H3P2, etc. Administrative changes have been made throughout the document. A distribution page for ARRS, MAC and ARRS organizations has been incorporated.

DISTRIBUTION TO MAC/ARRS HEADQUARTERS & 1550 ATTW:

MAC/DOT	- 2	1550 ATTW	-105
ARRS/DOT	- 2		

DISTRIBUTION TO WINGS:

39 ATTW/DOT, Eglin AFB, FL 32542	- 10
41 RWRW/DOT, McClellan AFB, CA 95652	- 8

TEST COURSE

CHAPTER 1

GENERAL INFORMATION

1-1. SCOPE:

a. The purpose of these courses is to provide transition and technical training to qualify helicopter pilots in the H-3. The courses are as follows:

COURSE NR	DESCRIPTION	TRAINING DAYS	APPROXIMATE HOURS ACAD	SIM	FLY
H3P1	Basic	50	62.4	26.0	28.5
H3P2	ARRS	20	39.7	2.0	21.0
H3CP2	ARRS	20	39.7	2.0	15.0
H3P3	TAC	20	17.8	2.0	13.5

b. The courses include:

(1) Academic training sufficient to prepare the aircrew member for simulator and then aircraft flying training.

(2) Flight simulator training conducted under the supervision of a trained flight simulator operator to attain the required qualification and proficiency for progress to flying training in the aircraft.

(3) Flying training of sufficient scope and quality to attain the desired qualification and proficiency.

c. Each phase of training will begin on the ground in academics, progress to the simulator and finish in the aircraft. Every attempt will be made to train each task in as efficient an environment as possible.

1-2. INSTRUCTIONS:

a. Each student will be allowed to progress at a rate based on learning ability, background experience and individual initiative. All instructions will be tailored to abilities and end assignment.

b. Students who fail to meet the desired standards of performance/knowledge after completion of instruction will be required to repeat the instruction until the standard is attained or, if circumstances warrant, be eliminated from the program.

c. Only training objectives will be evaluated. Tests, questionnaires, ground and flight checks will be aimed toward performance evaluation.

d. Students who continually fail to achieve required levels of proficiency in the simulator will be required to review those items, as applicable, in the learning center. Students who continually fail to achieve required levels of proficiency in the aircraft will be required to review those items, as applicable, in both the learning center and the simulator.

e. Definitions of Proficiency Levels. The level of proficiency at which the graduates should be able to perform the job elements is based on the following proficiency scale:

(1) Performance:

	DEFINITION	VALUE	CHARACTERISTICS
(a)	Familiar with the specific item and performs with substantial assistance.	1	Makes frequent mistakes. Inaccurate performance.
(b)	Possesses a general knowledge of the specific item and performs with limited assistance.	2	Makes some mistakes. Recognizes errors.
(c)	Possesses a thorough knowledge of the specific item and performs unassisted.	3	Performs safely. Lacks finesse.
(d)	Possesses a complete knowledge of the specific item and performs with a high degree of skill.	4	Adaptable. Displays finesse.

(2) Knowledge:

	DEFINITION	VALUE
(a)	Familiarization/no response.	A
(b)	State basic principles/locate source data.	B
(c)	State procedures.	C
(d)	Explain/analyze situations.	D

f. Definition of lesson symbols:

Check Ride	C	Ops Mission	Z
Hoist	H	Procedures	P
Instruments	I	Simulator	S
Night	N	Transition	T
Operational	O	Rescue	R

g. Definition of codes used on the CPTS (Grade Slips):

NOT APPLICABLE TO THIS LESSON

DEMONSTRATED ONLY - The student may perform under supervision of an IP, but no proficiency required.

PROFICIENCY REQUIRED - Proficiency as described in paragraph 1-2e.

PROFICIENCY REQUIRED - Satisfactory proficiency, but not numerically graded.

PROFICIENCY NOT REQUIRED ON EACH LESSON - The instructor will grade as necessary per special instructions.

PROFICIENCY GRADED VERBALLY - Proficiency may be graded verbally if operational requirements do not permit actual performance of job element.

NOTE. Students who will not have enough total flying time upon graduation to be certified as aircraft commander need only attain a "2" level for any job element/lesson marked with an asterisk (*) on the CPTS (grade slip).

h. Determination of 3 Level Proficiency.

(1) Tables 1-1.1 through 1-1.7 present the parameter tolerances for determining 3 level pilot proficiency in required maneuvers. Certain parameters and tolerances cannot be precisely defined and determination of competence concerning that portion of a maneuver must be made by the Flight Examiner/Instructor Pilot. Parameters in this area are:

(a) Power control in maneuvers:

1 Smoothness of application.

2 Application at proper time.

(b) Aircraft Control:

1 Positive control at all times.

2 Positioning of tip path plane for all maneuvers.

3 Stable position for hovering.

4 Approximately constant rates in hovering turns and hovering maneuvers.

5 Approximately vertical ascent/descent in hovering takeoffs and landings.

6 Attitude control on maximum performance takeoffs.

7 Acceptable deviation from exact center of pad on all approaches to a pad.

8 Degree of flare used to salvage an approach which was slightly fast approaching the pad.

9 Approach angles.

10 Flares during autorotations.

11 Horizontal path during an approach. The student may crab to correct for drift above 100 feet and convert to the wing low method below 100 feet AGL.

(c) During AFCS off flight, the student must have positive aircraft control at all times and be continually correcting to the same conditions that give the most stable flight characteristics.

(d) In most cases, the IP may accept slightly larger deviations than those presented in tables 1-1.1 through 1-1.7 if unusual situations exist and/or the student is continually aware of the deviations and correcting to the ideal.

(e) Operations. Since many variables are involved in helicopter operations and since judgment is by far the most important factor, allowances may be made to fit the actual training situation. Grading will of necessity be at the judgment of the FE/IP based on the safety of the particular maneuver, demonstrated positive control, use of applicable procedures as far as possible, and, most importantly, student understanding of the situation.

(f) TOLD computations and 365F completion can be evaluated objectively within specified tolerances (see table 1-2).

(g) Value judgment items and decision/interpretation items such as clearance in remote areas, distance estimates, actual skill in performing maneuvers such as hoist operation, sling procedures and physical accomplishment of checklist items must be evaluated on whether the action was completed correctly (the desired condition was achieved), safely (no danger to the aircraft of the student performing the function) and the student is confident and displays a knowledge and understanding of the maneuver/function. The only guidance in this area is provided by the definition and characteristics of a 3 level proficiency described above.

i. Student Guide Format:

(1) Each chapter (excluding the first) is divided into four sections as follows:

(a) Section A - Synopsis of the chapter.

(b) Section B - Academic lessons.

(c) Section C - Simulator lessons.

(d) Section D - Aircraft Lessons.

NOTE. The time listed opposite the title is only the estimated time required to complete the audiovisual portion of the lesson and does not include that required for the study assignment or exercises. The time listed opposite the title in simulator and aircraft lessons is only the time that will be allowed the individual student during the lesson. It does not include preparation, crew briefing, or flight time devoted to other students.

(2) Individual lessons have the following parts (subparagraphs):

(a) Objective. Indicates what you are expected to do by the end of the lesson. The required standard will be listed after the objective for academic lessons. For simulator and aircraft lessons, the required standard is overprinted in the maneuver block on this student grade slip. Definitions of standards are listed in paragraph 1-2g.

(b) Student Requirements and Tips. Lists what you must do prior to the lesson. It includes prerequisite training, study assignments and other information as applicable.

(c) Source Reference. Lists the references used to generate the lesson and the source you should refer to for further information.

(d) Required Materials/Equipment. Lists the personal equipment you will need to complete the lesson.

(e) Supplemental Information. Generally, information in addition to that in the source reference. In some cases, information from the source document and the audiovisual portion of the module will be included.

1-3. TRAINING:

a. Academics:

(1) Learning Center:

(a) Each academic lesson includes an audiovisual module to be viewed in the learning center unless otherwise specified. Exceptions are cockpit procedures trainer (CPT) lessons and seminars.

(b) The audiovisual portion of each lesson is concerned, in most cases, with the steps to perform a specific task. Any required background information or systems knowledge will be covered in the study assignment. There will generally be exercises included to test your knowledge of the study assignment. If you have problems with the exercises, see an academic instructor before viewing the audiovisual portion of the lesson.

(c) When you have completed the prerequisite training and study assignment for a lesson, go to the learning center with the required equipment. The learning center monitor will then issue you the requested module.

(d) An instructor will be available while you are completing the module; if you need assistance, call him.

(e) There are internal review questions throughout all modules. Each review question will be followed by a confirmation of the correct response.

(f) At the end of most modules, there is an end-of-module (EOM) examination. This test is intended to measure your ability to perform the module objective. You should answer the EOM questions on the special answer sheet (1550 ATTW Form 0-27) provided by the learning center monitor. When you complete the examination, turn your answer sheet in to your instructor for scoring. Minimum passing score is 80%.

(g) When you complete the module, return the tape and slide tray to the learning center monitor. If you are asked to critique the program, complete 1550 ATTW Form 0-19, "Critique of Audiovisual Program."

(h) Some modules include TV presentations as a review and some are completely on TV. This student guide or the learning center monitor will provide you with all required instructions.

(i) Most audiovisual modules are designed to be viewed individually. However, the carrels have been constructed to accommodate two students. If it is necessary to work in pairs, work all internal questions as a team and the EOM examination individually.

(j) The following items should be brought to the learning center (when required) for each academic lesson:

1 TO 1H-3(C)E-1, Flight Manual.

2 TO 1H-3(C)E-1CL-1, Flight Crew Checklist.

3 AFM 51-37, Instrument Flying Manual.

4 1550 ATTW H-3 Pilot Student Guide.

5 Pilot's computer.

6 Plotter.

(2) Seminars. Seminars are scheduled prior to each checkride to provide the student with two things: First, it will give the interaction that is not inherent in audiovisual training and second, it will cover student weak areas as noted on EOM examinations, simulator lessons and aircraft flights. You are encouraged to participate and ask questions.

(3) CPT. The CPT will be used to practice basic procedural tasks after they have been covered in the learning center. You will be required to bring your checklist for all CPT lessons.

b. Simulator training:

(1) The flight simulator provides the Air Force with an extremely cost effective method of providing training in a totally safe environment. It will safely provide you the opportunity to:

(a) Perfect cockpit checklist procedures prior to actual flight.

(b) Feel, observe, and practice coping with nearly all possible emergency procedures.

(c) Practice procedures that require visual cues in the aircraft.

(d) Gain experience performing flight duties in both the pilot and copilot seats.

(e) Practice all instrument flight procedures and maneuvers.

(2) The simulator phase of training will begin in the second week of training and will terminate during the flight phase. The major portion of instrument and emergency procedures training will be accomplished in the simulator. This will allow your aircraft phase to be devoted primarily to normal flying procedures.

(3) Certain academic modules and reading assignments will comprise prerequisite training for specific simulator lessons. These assignments are listed for each lesson. It will be your responsibility to insure that these prerequisites are completed prior to the simulator lesson concerned.

(4) Standard issue flight clothing (to include helmet, boots, and gloves) will be worn during simulator lessons. In addition, the following equipment should be brought along for all simulator lessons:

(a) TO 1H-3(C)E-1, Flight Manual.

(b) TO 1H-3(C)E-1CL-1, Flight Crew Checklist.

(c) AFM 51-37, Instrument Flying Manual.

(d) 1550 ATTW H-3 Pilot Student Guide.

(e) Pilot's computer.

(f) Plotter.

c. Flying Training:

(1) The flying training in the H-3 helicopter is the culmination of the training received in academics, cockpit procedures trainer, and simulator.

(2) The initial phase of the flying training will consist of instrument and transition flights. The next phase of training will be operational flights consisting of remote, hoist, sling, formation, search, navigation and water operations training. The final phase of training is specialized, consisting primarily of air refueling, water hoist and combat rescue training for ARRS students and heavyweight procedures and tactical profile training for the TAC students.

(3) Flying safety will be vigorously and continually stressed throughout this phase of your training.

(4) You are responsible for clearing the aircraft on your side during all aircraft operations, except when at the controls during simulated instrument flight. In any case, you should request "clearance to turn" from the scanners/instructor pilot before initiating the turn.

(5) Prerequisites for flights normally consist of simulator flights or other aircraft flights. These prerequisites are listed under the Student Requirements and Tips for each flying lesson.

(6) You should be prepared to brief each training flight to include all maneuver parameters and procedures.

(7) Emergency procedures/problems will be covered on each flight. You will be responsible for those listed under each flight as well as any that have been previously covered.

(8) To qualify for graduation, you will be required to demonstrate proficiency on representative maneuvers in each phase of training.

(9) The following items will be worn/carried on each aircraft lesson:

(a) Helmet.

(b) Flight suit.

(c) Flight jacket and winter gear (if appropriate).

(d) Gloves.

(e) Boots.

(f) Knife.

(g) Dog Tags.

(h) Flashlight.

(i) Ear protection (helmet or ear plugs).

(j) Flight manual (one per aircraft).

(k) Checklist.

(10) You are responsible for insuring that your helmet is inspected each ninety days. The Aircrew Life Support section is located in Building 1017; anticipate leaving the equipment for up to two days to allow time for the inspection to be completed. In no case will you be permitted to fly with equipment that is overdue inspection.

(11) The Flight Crew Information File (FCIF) must be read and signed off prior to each flight.

(12) It is your responsibility to insure that your flight manual and checklist are current for each flight.

(13) You will be required to complete all mission planning and prepare the TOLD card prior to the scheduled individual crew briefing time.

(14) You will be expected to know the parameters and monitor engine and transmission instruments for proper indications during engine start, rotor engagement, ground operations, in-flight operations, and shutdown.

(15) It is your responsibility to insure that the collective and cyclic are monitored during rotor engagement, shutdown, and whenever requested by the instructor.

(16) Minimum fuel remaining at final landing will be 500 pounds (250 pounds each tank, minimum) or when a fuel low level warning light comes on, whichever occurs first.

(17) You will be expected to review the AFTO Form 781 after each flight to insure that it is complete and correct.

TABLE 1-1.1

PARAMETERS

MANEUVERS	AIRSPEED	GROUNDSPEED	ALTITUDE	HEADING	ATTITUDE	APPROACH ANGLE	POWER	RPM
Taxi		5 Knots Maximum					25% Max Normal Conditions	Set 102% ± 2%
Lift Off to Hover		Stable Position	5 Ft AGL + 2 Ft	± 5 Degrees				Speed Selectors Beeped to Max
Hover Turns				± 10 Degrees Overshoot/ Undershoot				
Sideward/ Backward Flight		5 Knots Maximum		± 5 Degrees	*(NOTE 1)*			
Landing from Hover		Stable Position						
Takeoff from Hover			5 Ft AGL + 2 Ft Until Through Trans-lational Lift		5 + 2 Degrees Nose Low		As Required to Maintain 5 Ft AGL Until Trans lift then specified power ± 5% Q	
Takeoff Without Hover					5 ± 2 Degrees Nose Low After Becoming Airborne		Steady Increase To Specified Power ± 5% Q	
Maximum Performance Takeoff	50 Knots ± 5 Knots at 200 Ft		200 Ft AGL + 50 Ft at 50 KIAS		Approx Level at Lift Off		Steady Increase to Specified Power ±5%Q	

PARAMETERS

TABLE 1-1.2

MANEUVERS	AIRSPEED	GROUNDSPEED	ALTITUDE	HEADING	ATTITUDE	APPROACH ANGLE	POWER	RPM
Running Takeoff (Simulated Heavy Weight)	50 Knots ± 5 Knots at 5-10 Ft AGL		5-10 Ft AGL After Lift Off Until 50 KIAS	± 5 Degrees	Lift Off with Slight aft Cyclic Then Maintain 5-10 Ft AGL Until 50 KIAS		30% Until 30 KIAS Then Increase To Specified ± 5% Q	Beeped to Maximum
Traffic Pattern	90 Knots ± 10 Knots		500 Ft ± 100 Ft	Proper Correction to Maintain Prescribed Flight Path				Set 103% ± 2%
Normal Approach to Hover	Entry: 70 Knots ± 5 Knots		Entry: 300 Ft AGL ± 50 Ft Hover: 5 Ft		*(NOTE 1)*	30 Degree Apparent	Max of 500 FPM rate of Descent	Beeped to Maximum
Normal Approach To Touchdown	Entry: 70 Knots ± 5 Knots	0-5 Knots at Touchdown	Entry: 300 Ft AGL ± 50 Ft				No More Than Hover Power Should Be Required	
Steep Approach To Hover	Entry: 50 Knots ± 5 Knots		Entry: 300 Ft AGL ± 50 Ft Hover: 5 Ft			45 Degree Apparent	500 FPM Rate of Descent During Approach Max of 300 FPM Rate of Descent During Last 100 Ft of Approach	
Steep Approach to Touchdown	Entry: 50 Knots ± 5 Knots	0-5 Knots at Touchdown	Entry: 300 Ft AGL ± 50 Ft					

PARAMETERS

TABLE 1-1.3

MANEUVERS	AIRSPEED	GROUNDSPEED	ALTITUDE	HEADING	ATTITUDE	APPROACH ANGLE	POWER	RPM
Single Engine Approach and Landing	70 Knots Minimum	Touchdown Above Translational Lift not to Exceed 40K Ground Speed	500 Ft Min Until intercepting desired approach angle	± 5 Degrees	*(NOTE 1)*	10-30 Degree Apparent	500 FPM Rate of Descent	Beeped to Max on Good Engine
Approach to a Running Landing	Entry: 70 Knots ± 10 Knots		Entry: 300 Ft AGL ± 50 Ft			10 Degree Apparent		Beeped to Maximum
Practice Auto-rotations	Entry: 70-110 Knots	Recovery Less Than 30 Knots Ground Speed	Entry: Minimum of 500 Ft AGL Recovery Approx 15 Ft AGL		As Required to Maintain Airspeed *(NOTE 1)*			Maintain 98%-112% N_r during auto rotation 96-98% N_f
VFR Cruise	± 10 Knots from Desired Airspeed		± 150 Ft	Proper Correction to Maintain Prescribed Flight Profile				Set 100-103% N_r
IFR Cruise	± 10 Knots from Desired Airspeed		± 150 Ft	Proper Correction To Maintain Prescribed Flight Profile or Controller Instruction				Set 100-103% N_r

TABLE 1-1.4

PARAMETERS

MANEUVERS	AIRSPEED	GROUNDSPEED	ALTITUDE	HEADING	ATTITUDE	APPROACH ANGLE	POWER	RPM
IFR Holding Pattern	70-110 Knots. 90 Knots for "Copter" Procedures + 10 Knots From Selected Airspeed		± 100 Ft	Proper Correction to Maintain Prescribed Flight Profile or Controller Instruction				Set 100-103% N_r
Instrument Approach Pattern Prior to Final								
Non-precision Final Approach	70-110 Knots. 90 Knots for "Copter" Approach + 10 Knots - 5 Knots from Selected Airspeed		MDA ± 50 Ft until Runway in Sight or Starting Missed Approach					
Circling Approach			MDA ± 50 Ft Until Runway in Sight and in Position to Descend for Final Approach					
GCA Final			Compliance with Instructions					

TABLE 1-1.5

PARAMETERS

MANEUVERS	AIRSPEED	GROUNDSPEED	ALTITUDE	HEADING	ATTITUDE	APPROACH ANGLE	POWER	RPM
ILS Final	70-110KT 90KT for "Copter" App +10KTS from selected Airspeed		Glide Slope Indicator 1 Dot Low 2 Dots High	Course Deviation Indicator Between Inner Dots				Set 100-103% N_r
IFR Climb	70-80 Knots			Proper Correction to Maintain Prescribed Flight Profile or Controller Instruction			Max Continuous, Military Power as Required	
IFR Descent	Enroute: Cruise Airspeed Approach: 70-110 KIAS. ± 10 Knots from Selected Airspeed							
Instrument Takeoff				± 5 Degrees	Level on Attitude Indicator until Aircraft Leaves Ground then 3 Degree Nose Low		Smooth Increase to Takeoff Power until 70 KIAS	Beeped to Maximum

PARAMETERS

TABLE 1-1.6

MANEUVERS	AIRSPEED	GROUNDSPEED	ALTITUDE	HEADING	ATTITUDE	APPROACH ANGLE	POWER	RPM
Running Instrument Takeoff	35-40 Knots Before Lift Off			± 5 Degrees	Level at Lift Off Then 3 ± 2 Degrees Nose Low		30% until 35 to 40 KIAS Then Smooth Increase to Take-off power until 70 Knots	Beeped to Maximum
Missed Approach	70-80 Knots			Proper Correction to Maintain Prescribed Flight Profile or Controller Instruction			Climb Power	
Air Refueling Rendez-vous	± 10 Knots		± 100 Ft	± 5 Degrees			As Required	
Air Refueling Joinup	105 Knots ± 5 Knots		Joinup Altitude + 50 Ft					
Water Hoist Pattern	70-90 Knots		300 Ft ± 50 Ft	Proper Correction to Maintain Prescribed Flight Profile			103% ± 2%	

PARAMETERS

TABLE 1-1.7

MANEUVERS	AIRSPEED	GROUNDSPEED	ALTITUDE	HEADING	ATTITUDE	APPROACH ANGLE	POWER	RPM
Smoke Drop Pattern	70 Knots ± 5 Knots		300 Ft ± 50 Ft	Proper Correction to Maintain Prescribed Flight Profile				Set 100-103% N_r
Water Hoist Approach	Entry: 50-70 Knots ±10KTS		Entry: 300 Ft ± 50					Beeped to Maximum
Remote High Reconnaissance	70 Knots Minimum		Approx 300 Ft above Site					Pattern: Set 100% - 103% N_r
Remote Low Reconnaissance	60 Knots Minimum		Approx 50 Ft above Highest Obstacles Along Route					Beeped to Maximum
Remote Approach								
Remote Takeoff								

NOTE 1. Do not exceed the nose up attitude limitation as established in the flight manual

TABLE 1-2. TOLERANCES FOR NUMERICAL COMPUTATIONS

TOLD	
Density Altitude	± 200 Feet
Power Available	± 2%
Power Required	± 2%
Maximum Gross Weight for Hovering	± 300 Pounds
Single Engine Service Ceiling	± 500 Feet
Single Engine Gross Weight	± 200 Pounds
Maximum Airspeed	+ 0, -5 Knots
FUEL MANAGEMENT	
Bingo Fuel	± 200 Pounds
Bingo Time	± 10 Minutes
CENTER OF GRAVITY	± 1.0 Index

COURSE OVERVIEW FLOW REQUIREMENTS FOR PILOTS			
Desired Flow/Remarks	Prerequisite Training		
	Academic	Simulator	Aircraft
SP-1	~~P-3, P-5, P-6, P-7, P-8, P-9, P-10, I-1, I-2, I-3,~~ CPT-2		
SI-1	~~I-4, I-5, I-9 I-10, I-14, I-16~~	SP-1	
ST-1	~~P-2, P-4, P-16, P-23, I-1, I-2, I-3, I-4, I-8, I-12~~	SP-1	
T-1	~~P-11, P-13, I-6~~	ST-1	
T-2	(P-1)		T-1
SP-2	P-12, ~~P-14, P-15~~ P-17, ~~P-21, P-22~~	SP-1	
T-3		SP-2	T-2
SI-2	I-6, I-7, I-11, I-17	SI-1	
T-4	P-19, P-20		T-3
SI-3	P-18, I-13, I-15 I-18	SI-2	
NT-5	T-5		T-3
T-6			T-4

Figure 1-1.1 Pilot Prerequisite/Flow Requirements (Continued)

Desired Flow/Remarks	Prerequisite Training		
	Academic	Simulator	Aircraft
SI-4		SI-3	
T-C	T-SEM		T-6
SO-1	O-1, O-2, O-3, O-4, O-6, O-7, O-8, O-9, O-11	SI-2	
O-1		SO-1	T-6
SO-2	O-5, O-10, O-14	SO-1	
O-2			O-1
O-3			O-1
O-4			O-3
SI-5		SI-4	
O-5	O-15, O-16	SO-2	O-1
O-6		SO-2	T-6
SI-6		SI-5	
I-1		SI-3	
SI-C	I-SEM	SI-6	
IC-1		SI-C	I-1
O-7	O-12, O-13	SO-1	T-6
NO-8			NT-5, O-3

BASIC (H3P1) ONLY COURSE

SP-3		SP-2	
O-C	O-SEM	SP-3	O-2, O-4, O-5, O-7

Figure 1-1.2 Pilot Prerequisite/Flow Requirements

TEST COURSE

RESCUE AIRCRAFT COMMANDER (H3P2) COURSE

Desired Flow/Remarks	Prerequisite Training		
	Academics	Simulator	Aircraft
O-C	O-SEM	SP-2	O-2, O-4, O-5, O-7
SR-1	R-1 thru R-7	SP-2, SO-2	
R-1		SR-1	O-4, O-5, O-6
R-2			R-1
NR-3			R-1
NR-4	R-SEM 1		R-2, NR-3
RC-1			NR-4
R-5	R-8, R-9, R-10 R-11	SR-1	O-4, O-5, O-6
R-6		SR-1	O-4, O-5, O-6, O-7
R-7	R-SEM 1		R-6
RC-2			R-7
R-8		SR-1	OC-1
R-9	R-SEM 2		R-5
SP-3		SP-2, SI-C	
RC-3		SP-3	RC-2 R-8, R-9

Figure 1-1.3 Pilot Prerequisite/Flow Requirements (Continued)

TEST COURSE

RESCUE COPILOT (H3CP2) COURSE

Desired Flow/Remarks	Prerequisite Training		
	Academics	Simulator	Aircraft
O-C	O-SEM	SP-2	O-2, O-4, O-5, O-7
SR-1	R-1 thru R-7	SP-2, SO-2	
R-1		SR-1	O-4, O-5, O-6
NR-4	R-SEM 1		R-1
RC-1			NR-4
R-5	R-8, R-9, R-10, R-11	SR-1	O-4, O-5, O-6
R-8		SR-1	OC-1
R-7	R-SEM 1		R-8
RC-2			R-7
R-9	R-SEM 2		R-5
SP-3		SP-2, SI-C	
RC-3		SP-3	RC-2, R-8, R-9

Figure 1-1.4 Pilot Prerequisite/Flow Requirements (Continued)

TEST COURSE

RESCUE (H3P2) ONLY COURSE

Desired Flow/Remarks	Prerequisite Training		
	Academics	Simulator	Aircraft
SR-1	T-6, O-1, O-11, R-1, R-2, R-3, R-4, R-5, R-6, R-7		
R-1		SR-1	
R-2			R-1
NR-3			R-1
NR-4	R-SEM 1		R-2, NR-3
RC-1			NR-4
R-5	R-8, R-9, R-10 R-11	SR-1	
R-6		SR-1	
R-7	R-SEM 1		R-6
RC-2			R-7
R-8		SR-1	
R-9	R-SEM 2		R-5
RC-3			RC-2, R-8, R-9

Figure 1-1.5 Pilot Prerequisite/Flow Requirements (Continued)

TEST COURSE

TACTICAL AIR COMMAND PILOT (H3P3) COURSE

Desired Flow/Remarks	Prerequisite Training		
	Academics	Simulator	Aircraft
O-C	O-SEM	SP-2	O-2, O-4, O-5, O-7
SZ-1	Z-1 thru Z-7	SP-2, SO-2	
Z-1		SZ-1	O-2
Z-2		SZ-1	O-5
Z-3			Z-2
Z-4			OC-1, Z-1
Z-5	Z-8, Z-9, Z-SEM		Z-4
SP-3		SP-2, SI-C	
ZC-1		SP-3	Z-5

Figure 1-1.6 Pilot Prerequisite/Flow Requirements