UH/TH-1H Specialized Undergraduate Pilot Training SYLLABUS GUIDE

P-V4C-D

April 2009 Syllabus

Edition: June 2009

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PURPOSE: This guide establishes policies for the conduct of UH/TH-1H Specialized Undergraduate Pilot Training (SUPT-H) student academics, flight training and ground/flight evaluations IAW AETC Syllabus P-V4C-D. **This guide is not a replacement for the syllabus; instructors/students should be familiar with the syllabus.** All policies and procedures outlined in this guide must be strictly followed in order to ensure standardization of training. Further clarification can be found in the syllabus, AETCI 36-2205 Formal Aircrew Training Administration and Management, applicable grade sheets, and the 11-MDS series regulation. Waiver authority for local policy is the 23 FTS CC/DO.

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SECTION 1 Academic Program (AETCI 36-2220)

A. **Course Outline.** The classroom portion of the curriculum consists of six units of academic instruction to include end-of-unit exams and critiques. The flight line portion consists of twenty-one flight line quizzes and daily emergency procedure (EP's) scenarios.

A.1. Classroom portion. All academic training is listed in the syllabus.

A.2. Initial Instructor Qualification. To become qualified in his/her first academic lesson, instructors must observe a course being taught and then teach that class under the observation of a current lesson qualified instructor. See the Program Manager for more details.

A.3. Additional Qualifications. Instructors qualify for additional lessons by observing the lesson. See the Program Manager for more details.

A.4. Instructor Currency. Instructors must teach a non-administrative lesson every 120 days to maintain academic instructor currency. Non-current instructors must be observed by a current and qualified academic instructor to regain currency.

B. **Grading Standards**. All end-of-unit exams and flight line quizzes will have a minimum passing score of 85 percent.

C. **Unsatisfactory Performance (Syllabus).** Failure to achieve a score of at least eighty-five percent on any end-of-unit exam will be grounds for extra instruction (IPs are only allowed to review the students' weak areas while correcting the test to a 100%). A retest will be administered. Failure of the retest will result in an oral retest. No other syllabus training may occur until the exam has been corrected to 100%; students may fly prior to the retest. Failure of any two exams will result in the student's permanent placement into the Commander's Awareness Program (CAP). Failure of any three exams will result in a Commander's Review (CR) and is grounds for removal from training.

SECTION 2 Commander's Awareness Program (AETCI 36-2205)

A. **Objective**. The objective of the CAP is to focus supervisory attention on the student's progress in training, specific deficiencies and potential to complete the program. The student flight commander administers CAP for his/her class. The squadron commander, however, maintains overall responsibility and authority for the program.

B. **CAP types.** The three types of CAP are academic, flying and military.

C. **Placement and Removal**. Student flight commanders will place students on CAP status for substandard performance in training, requiring close monitoring of the student's progress. **Student flight commanders have blanket approval to select a student for CAP at any time. However, two unsatisfactory overall grades in any one unit of training i.e. C1100 series, or two consecutive U's will automatically result in placement on flying CAP. Two academic exam failures or Flight line Quiz (FLQ) failures automatically result in placement on academic CAP.** Student flight commanders and squadron leadership may determine what constitutes placement on military CAP. The military CAP program is designed to prevent substandard military leaders from entering the helicopter community first through reform and ultimately through elimination if necessary. CAP write-ups must include criteria for being removed from CAP.

D. **Cap Guidance**.

D.1. **Academic and Military CAP**. No special privilege is generally afforded students on academic or military CAP as deficiencies in these areas is normally attitude and effort related rather than skill related. Although exceptional cases may require special treatment (to be documented in the AF Form 4293), no CAP levels for academic and military CAP are necessary.

D.2. **Flying CAP**: There are two levels of flying CAP.

D.2.1. **1st level CAP –** This level of CAP is used for students placed on flying CAP as a precaution before mandatory triggers require it. Student flight commanders will use 1st level CAP as a tool to inform the student and leadership of performance that bears watching; and will monitor instructor continuity and experience within the framework of the schedule. The Student flight commander may schedule extra ground instruction if necessary, and set goals for removal from CAP which will help the student to focus on his or her weaknesses**.**

D.2.2. **2nd level CAP –** This level of CAP is administered whenever a mandatory trigger demands placement on flying CAP or if deemed necessary by the Student Flight Commander. This level of CAP has all the requirements of 1st level CAP plus the student is restricted to performing 1 flying activity per day (waiverable by CC/DO). Additionally, the Student flight commander will receive preferential treatment for scheduling the IP or IP's that, in his or her judgment, are best able to improve the students' performance. There is no formal limit on instructor continuity or experience as the student flight commander must tailor each instance of CAP to suit the individual student's needs. Some factors student flight commanders may consider in selecting IP's for students experiencing problems include: continuity, personality compatibility with student, instructing style, instructing experience, and professional background (i.e. IP's with backgrounds compatible with the student's goals will sometimes be able to connect better).

E. **CAP Actions**. The Student flight commander or designated representative will:

E.1. Document student's placement on CAP in GTIMS with an AF Form 4293. Be specific about cause for CAP placement. **Note type and level** and document conditions for removal.

E.2. Counsel student on CAP procedures to include reason for CAP and goals for removal from CAP. If the student is not satisfied with instruction or continuity, document that as well. Have the student initial the write-up in the AF Form 4293 when counseling is complete.

E.3. Ensure a write-up is accomplished in GTIMS and placed into the grade book.
Note type and level.

E.4. A CAP flag will be displayed in GTIMS on top of the student's gradesheet.

E.5. Notify squadron leadership (CC, DO, or ADO) of the student's CAP status. Do not sign the AF Form 4293 until squadron leadership is informed.

E.6. Brief squadron leadership at least weekly on CAP students' status. Briefing must include strengths, weaknesses, additional training details, and anticipated removal date/criteria. These briefings are normally conducted during the IP or staff meeting, but may be taken care of at another

time if necessary. When the pre-determined criteria has been achieved, the SQ/CC will approve the removal of the student from CAP.

F. **Counseling**. The Student flight commander will counsel the student when the student is placed on or removed from the CAP. Additional counseling will be done at the discretion of the Student Flight Commander. Document all counseling on the AF Form 4293 in GTIMS.

SECTION 3 STUDENT TRAINING GUIDELINES AND POLICIES

A**. Student Training Philosophy.**

A.1. It is the goal of SUPT-H to build on the knowledge and experience you gained in the T-37, T-6 or T-34 and not to replicate that experience in a rotary wing aircraft. Do not sit back and expect to be given all the answers you need to succeed. By design this program will not provide you with all the answers, nor will we give you a prescribed way of accomplishing every task. It is your responsibility as a student pilot to find the answers. Read your publications, study your courseware, ask your instructors questions, and ask your fellow students for help. Do not be frustrated by the differences you will encounter here, they are there by design not omission.

B. **Coaching.**

B.1. Students coaching other students to perform cockpit duties will not be tolerated.

B.2. Coaching is defined as: **student pilots who take it upon themselves to accomplish crew duties that they have not been assigned nor which are normally associated with their crew position.**

B.3. The student in the pilot's seat must be responsible for running the crew and mission.
The goal is for the student to develop the situational awareness necessary to balance a large task load while accomplishing the mission and delegating tasks appropriately.

B.4. If a student does not adequately delegate crew tasks and duties to other crewmembers the student may be downgraded for task management. If the student pilot delegates all tasks to the jump and co-pilot the student will never increase their level of situational awareness nor develop the skills necessary to avoid task saturation.

B.5. It is the responsibility of the IP to determine if the SP is delegating too much or not enough of the cockpit duties and adjust the task delegation accordingly.

B.6. If a student is determined to be coaching his/her classmate, the IP can downgrade or unsat the student for Crew Resource Management.

B.7. If a student has repeatedly been corrected for coaching, the Flt/CC or DO may choose to take further disciplinary action.

C. **Checklist discipline.**

C.1. Students who give improper responses to challenge response checklists or who are accomplishing non-boldface checklists from memory can expect to receive a downgrade.

D. **Publications.**

D.1. Students will be issued publications upon in-processing.

D.1.1. It is the student's responsibility to update their publications in accordance with the master FCIF library located in DOV.

E. **Aircraft Forms**

E.1. Students will fill out the aircraft forms after each sortie and IPs will ensure that it is done correctly. This is graded as part of Ground Operations.

E.2. A qualified pilot is the only one authorized to sign off the flight(s) in the front of the aircraft forms.

F. **Grade Sheets.**

F.1. Maneuvers with a plus (+) and a MIF standard will be accomplished in the unit. Maneuvers with just a MIF standard may be accomplished in the unit: if performed they will be graded.

F.2. CRM will be graded on all sorties but is broken down into the following areas: mission planning/briefing/debriefing, crew coordination, risk management/task management, and SA.

F.3. Refer to SUPT-H Syllabus, Section C for more information on grading procedures.

F.4. All electronic grade sheets will be signed off in the Edit Reviews box in GTIMS. ***Refer to appendix for instructions.**

F.5. Students are responsible for electronically initialing 4293 write-ups in GTIMS. ***Refer to appendix for instructions.**

SECTION 4 SUPT-H GRADING PROCEDURES (Syllabus)

A. **Gradebooks**. Student Flight Commanders maintains student gradebooks electronically in GTIMS. Gradebook information will not leave the 23 FTS. The following procedures are accomplished electronically through GTIMS.

A.1. AETC Form 101: Fill out CAP History block for both going on CAP and coming off of it. Use the Check Failure/PC/EC History block to record failed evaluations. Record PC and EC regardless of outcome. Record academic failures in the Academic Failures block. You may record standup EP and FLQ failures in the other block for easier tracking (three FLQs is a progress check trigger). Use the Professional Qualities block if needed. Counseling not associated with CAP, PC, EC, or CR/elimination can be placed in the Professional Qualities block on Form 101. Record sensitive personal problems on AF Form 174 and place in student's PIF. State on AF IMT 4293 that there is an AF Form 174 on file. ***Refer to appendix for instructions on how to change the status (CAP, DNIF, Syllabus Deviation) of a student in GTIMS.**

A.2. AF Form 4293: Record CAP placement/removal, AT rides, deviations, waivers, and unusual circumstances. ***Refer to appendix for instructions on how to create an electronic 4293 in GTIMS.**

B. **Grading Criteria**. (Reference AETC Syllabus P-V4C-D).

C. **Unsatisfactory Performance.** (Reference AETC Syllabus P-V4C-D)

D. **Proficiency Advancement (PA)**. Proficiency advancing through syllabus sorties will only be done if the student has met all MIFs for the given training unit and the 23 FTS CC/DO approves the PA. Document PA in student grade book on a Student Activity Record form (AF IMT 4293) and on a GTIMS gradesheet with grade of NG for the sortie and check the prof advance block, with sortie time as zero.

SECTION 5 Evaluations (AETCI 36-2205 and Syllabus)

A. **Evaluator Qualification**: See MDS 11-series regulation and Letter of X's

B. **Evaluation Grading Criteria** (per 36-2205). For grading purposes, students are assumed to perform at the optimum standard to MIF and work their way up or down depending on the performance of the maneuver.

B.1. Evaluators will grade individual maneuvers on the absolute grading scale. **If a maneuver is affected by some unusual factor beyond normal student capacity, the check pilot may provide assistance or allow the maneuver to be re-accomplished.**

B.2. The evaluator judge's student performance based on the first attempt to perform the maneuver. If a student performs a maneuver to an F when a G is required, the maneuver may be repeated. If the repeat maneuver is G, the student will receive a G maneuver grade; if F again, grade maneuver F. If the first or any subsequent attempt is U, the maneuver will be graded U and the overall sortie grade will be U. ***NOTE:*** **A maneuver discontinued by the student exercising situational awareness does not necessarily constitute a first attempt.**

B.3. The minimum overall grade to pass an evaluation is G. Evaluations will only be logged as incomplete when no individual maneuver was graded below MIF standard and all required maneuvers were not flown (see incomplete sorties). If any maneuver is graded below MIF standard, the check is complete and the overall grade is U.

C. **Ground Evaluations**

C.1. Ground evaluation of student knowledge is required on all evaluations. Subject areas include: TM 55-1520-210-10, TO 1H-1(T)H-1, systems, 23 FTS SOP, MDS 11-series regulation, AFMAN 11-217 Vol. 1 and 3, 11-202 Vol. 3, and syllabus standards.

C.2. Evaluators will ask a sufficient number of questions to make an overall assessment of the student's depth of knowledge. Students who incorrectly verbalize or write a BOLDFACE emergency procedure will receive an overall grade of U for the evaluation.

D. **Progress Check/Elimination Check (PC/EC)**: Reference AETC Syllabus P-V4C-D. A PC/EC is a full mission profile evaluation, including the student's weak areas and a representative cross section of maneuvers.

D.1. Progress checks are big picture and instruction may be accomplished (**except for trend maneuvers and U maneuvers which triggered the check**).

D.2. Elimination checks are completely big picture and instruction may be accomplished in all phases. **See syllabus for further details.**

SECTION 6 Additional Syllabus Information

A. **Syllabus Management**. For interpretation, waiver, and deviation issues, see syllabus.

B. **Limitations**

B.1. Students will not perform more than two events per day or on the same sortie unless approved by the CC/DO on a case-by-case basis.

B.2. Students are limited to a total of 8 hours total aircraft time.

B.3. Students are limited to a total of 6 hours of **testable** academics per day.

B.4. Students can combine academics and flying on the same day. However, they're limited to a 12-hour duty day.

B.5. All aircrew are restricted from flying actual aircraft sorties as primary crewmembers within 12 hours of a simulator flight with computer generated visual displays.

SECTION 7 Student Training Issues

A. **Instructor Focus**

A.1. Emphasis needs to be placed on the evaluation of each student's problem(s) individually.

A.2. Find the individual reasons/solutions. Is it the IP, the delivery, the student, etc?

A.3. Remember that these students come to us out of a fixed wing training environment and as such instructors need to:

A.3.1. Correct fixed wing habits early.

A.3.2. Stress power management and its effects

A.3.3. Stress proper scanning techniques on approach.

A.3.4. Stress proper change of controls.

A.3.5. Stress proper Crew Resource Management techniques

SECTION 8 BOLDFACE

A. **Procedures**

A.1. Verbal quizzing is an acceptable method of evaluating boldface knowledge on daily rides.

A.2. Written boldface exams will be given by EPs on ALL check rides.

A.3. All Boldface exams (written or verbal) must be accomplished verbatim (no added, missing or different words).

A.4. Once the student has turned in a written Boldface exam to the EP or IP it will not be returned to the student. The Boldface exam will be graded to 100% on the first attempt by the EP/IP.

A.5. Exam busts will result in an Unsatisfactory for that sortie and student will not fly. The student must also accomplish a satisfactory Boldface exam prior to the next flight.

SECTION 9 GRADEBOOK WRITE-UPS

A. **Unsatisfactory Performance Notification.**

A.1. If a student receives an Unsatisfactory for any sortie the IP or evaluator delivering the unsatisfactory grade will immediately e-mail the 23 FTS Student Unsat mail box to identify the student receiving the U grade and provide a brief explanation as to why the student failed. This insures that the DO, ADO, DOV, DOS, student flight commanders and LSI are notified to insure timely schedule corrections and to assist in the gathering of trend and accountability data

A.2. If a student receives an overall Fair grade for any sortie the IP delivering the Fair grade will immediately e-mail the 23 FTS Student Flight/CCs to identify the student receiving the F grade and provide a brief explanation as to why the student Faired the sortie. This ensures that the Student FLT/CCs have awareness of struggling students.

B. **Gradebook Write-ups**

B.1. Incomplete versus Canceled.

B.1.1. If a sortie is terminated prior to flight and no unsatisfactory performance was noted and no training was accomplished then the sortie should be annotated as **Canceled** with no over-all grade applied and no MIFs graded.

B.1.2. Sorties that have individual maneuvers items graded should be annotated as **Incomplete**.

B.1.3. If a sortie was incomplete or canceled then there needs to be some type of a write up explaining why in the profile block.

B.1.4. If the IP takes the opportunity afforded by a weather delay to administer an extensive ground evaluation, and the student does well, this should be noted as an Incomplete with an appropriate high MIF score.

B.2. If student(s) flight cancelled PRIOR to flight.

B.2.1. Open Grade Sheet
B.2.2. Select status drop down box and choose INC
B.2.3. Select status reason and select appropriate choice
B.2.4. Select N for overall grade
B.2.5. Ensure duration is 0.0
B.2.6. Ensure that no items are graded
B.2.7. Save grade sheet
B.2.8. Clone grade sheet

B.3. If student flew in the jump seat and did not log flight time at the controls.

B.3.1. Delete the student from the Training Data on the Flight Record
B.3.2. Open the grade sheet
B.3.3. Select status drop down box and choose INC
B.3.4. Select status reason and select appropriate choice
B.3.5. Select N for overall grade
B.3.6. Ensure duration is 0.0
B.3.7. Ensure that no items are graded
B.3.8. Save grade sheet
B.3.9. Clone grade sheet

B.4. Write-ups.

B.4.1. "None noted" and "Normal for this Phase" are not an acceptable write-ups for weaknesses block. It is acceptable to refer to the individual items write-ups in the strengths and weaknesses area. Item critiques should be written up with the appropriate item, good or bad. This will help the next instructor to focus on items requiring more or less focus.

B.4.2. IPs need to really look at the student and identify those areas that need more attention on the next ride.

B.4.3. If an item is graded above or below MIF it needs to have a write-ups for the maneuver item.

B.4.4. If an IP has a problem with GTIMS or grade sheet completion he is required to notify the appropriate student flight commander of the date, sortie and problem so that he can insure it gets fixed.

C. **Training Phase Guidance**

C.1. The following is a breakdown of each phase of SUPT-H training. This is not meant to be a substitute for the overall SUPT-H syllabus sortie guidance, however provide more insight into local techniques to students and instructors for mission planning and training phase expectations.

//SIGNED//
BRETT R. HAUENSTEIN, Lt Col, USAF
23 FTS Commander

EP Simulator Phase Guidance

1. Background. This unit contains 6 simulator rides to including an introduction. Students are expected to respond appropriately to any given scenario. Students are expected to maintain aircraft control during an emergency scenario however emphasis should be placed on the identification and proper action during emergency scenarios NOT necessarily the ability for the student to fly the simulator. Student Pilots should use the MATR principle and proper CRM to analyze and handle the EP as necessary. For example, a perfect touchdown autorotation is not necessarily required in order for a student to correctly identify, analyze, and execute the EP scenario.

2. Student Preperation. Chap 2, 3 & 5 in the Dash 1, checklist responses and appropriate course ware.

3. Mission Planning. Students are expected to prepare for simulator sorties as if it were an actual flight in the aircraft. Students should review the sortie description and prepare Form 70, Maps, TOLD, weight and balance, and RT reconnaissance as necessary. Students should prepare for the canned weather and aircraft conditions but be prepared if the IP alters the conditions for training.

4. Mission Execution.

a. Initial Conditions (IC). Each sortie should be set up with the initial conditions for weather and location specified in the sortie description below. Instructors are authorized to change conditions as necessary in order to emphasize desired points of training, however conducting the profile in similar conditions is recommended to ensure each student is graded fairly.

b. SEP1101. See syllabus for sortie description. Practice start-up and shutdown procedures. Introduce a representative cross section of critical action emergency procedures and non-critical emergency procedures. Address start-up EPs and identifying dual-tach related EPs.

Recommended Profile: Conduct a day contact sortie to Skelly. Start cold on alpha or delta pads at Cairns. First student flies to Skelly, second student flies back. Both students in front, IP at IOS station with cockpit IOS stowed. Student in right seat will act as Aircraft Commander. Students conduct, at minimum, full run-up start-up for first session and full shut-down for second session. Student should swap seats at Skelly. If only there is only one student flying one sortie, the IP should use a representative sample from both sessions in order to cover the majority of MIF items.

Recommended Setup:
IC: 1,2 & 8
Alternate Manual Setup:
- WX: CAVU LGT VRB Standard Day
- Configuration: 7800Lbs, 140 CG, 1400lbs
- No freezes
- Location: A or D Parking, KOZR

Traffic IC: None
Formation IC: None
Additional Materials:
- Canned MEF
- Canned W&B w/Cal factor

Required Student Materials:
- TOLD
- W&B
- F70

Session 1:
ENGINE START: Engine Hot Start
ENGINE START: Engine Hung Start
HOVER CHECK: Power Assurance Check failure
IN FLIGHT: Engine Failure Complete
IN FLIGHT: Engine Overspeed Fuel Control
IN FLIGHT: Engine fire (in flight – Fuel pressure falling)
IN FLIGHT: Fuel Boost Pump Failure- Left
IN FLIGHT: N2 Accessory Gearbox Failure
IN FLIGHT: Transmission Temp High Real Indication
BEFORE T/O (Take-off): Fixed Pitch Setting (High)
IN FLIGHT: Tail Rotor Vibration/Loss of T/R Components (failure)
IN FLIGHT: Cyclic Hardover
IN FLIGHT: Main Gen failure – Resettable
IN FLIGHT: ADC 1 Fail

Session 2:
BEFORE T/O CHECKLIST – COMPLETED (Initial Take-off): IGV failure Closed
BEFORE T/O CHECKLIST – COMPLETED (Initial Take-off): Low Side Gov Failure
HOVER CHECK: Complete Loss of TR Thrust
IN FLIGHT: Engine Overspeed Governor Failure
IN FLIGHT: Engine fire (in flight – Oil pressure falling)
IN FLIGHT: Engine Fuel Pump Failure
IN FLIGHT: Droop Compensator Failure
IN FLIGHT: Main Driveshaft Vibration/Failure
IN FLIGHT: Low Transmission Pressure
IN FLIGHT: Flight Control Malfunction – Binding
IN FLIGHT: Collective Hardover
IN FLIGHT: Main Gen Failure – Not resettable
IN FLIGHT: EDC1 Failure

c. SEP1201. See syllabus for sortie description. Practice a representative cross section of critical action and non-critical action emergency procedures. Focus on dual-tach EPs. EPs should be given at any altitude or on the ground.

Recommended Profile: Conduct a sortie to Skelly, Florala or Andalusia. Start cold on alpha or delta pads at Cairns. First student flies to Skelly, Florala or Andalusia , second student flies back. Both students in front, IP at IOS station, with cockpit IOS stowed. Student in right seat will act as Aircraft Commander. Students conduct, at minimum, full run-up start-up for first session and full shut-down for second session. Student should swap seats at Skelly, Florala or Andalusia. If only there is only one student flying one sortie, the IP should use a representative sample from both sessions in order to cover the majority of MIF items.

Recommended Setup:
IC: 1,2 6,7 & 8
Alternate Manual Setup:
- WX: CAVU LGT VRB Standard Day
- Configuration: 7800Lbs, 140 CG, 1400lbs
- No freezes
- Location: A or D Parking, KOZR

Traffic IC: 1, 2, 5, 7, 9, 10, or 11
Formation IC: None
Additional Materials:
- Canned MEF
- Canned W&B w/Cal factor

Required Student Materials:
- TOLD
- W&B
- F70

Session 1:
ENGINE START: Engine Fire (ground/start)
ENGINE START: Engine No Start
ENGINE START: Clutch fails to engage (engine start)
BEFORE T/O: Zero engine oil pressure (Indication only)
BEFORE T/O: Low Engine oil Pressure
BEFORE T/O: Ng Tach Gen Failure
BEFORE T/O: Nr Tach Gen Failure
BEFORE T/O Main XMSN Oil Temp gage fails
IN FLIGHT: Main Rotor Vibration/Flight Control Malfunction – Binding
IN FLIGHT: Main Gen Failure – Not resettable/ Electrical system failure – standby gen failure – Resettable
IN FLIGHT: AHRS Fail

Session 2:
BEFORE T/O CHECKLIST – COMPLETED (Initial Take-off): Engine Compressor Stall #1
BEFORE T/O CHECKLIST – COMPLETED (Initial Take-off): Engine Failure – Partial
BEFORE T/O: High Engine Oil Temp
BEFORE T/O: Engine Oil Cooler Fan failure
IN FLIGHT: (Fuel Contamination) Fuel Boost Pump Failure- Left/Right/Engine Fuel Pump Failure/ Engine Failure Complete
IN FLIGHT: Trans Oil Temp High False Indication
IN FLIGHT: Main Rotor Vibration/Flight Control Malfunction – Sloppiness
IN FLIGHT: Flight Control Servo Hardover
IN FLIGHT: Engine Overspeed Governor Failure
IN FLIGHT: Electrical fire (in flight)
IN FLIGHT: Loss of Transmission Oil Pressure
IN FLIGHT: AHRS in Align

d. SEP 1202. See Syllabus for sortie description. Practice a representative cross section of critical action and non-critical action emergency procedures. Focus on dual-tach EPs as well as introducing a Sprag Clutch failure. EPs should be given at any altitude or on the ground; engine restarts may be attempted, but not graded.

Recommended Profile: Conduct a sortie to Skelly, Florala or Andalusia. Idle on alpha or delta pads at Cairns. First student flies to Skelly, Florala or Andalusia , second student flies back. Both students in front, IP at IOS station, cockpit IOS stowed. Student in right seat will act as Aircraft Commander. Students conduct, at minimum, full run-up start-up for first session and full shut-down for second session. Student should swap seats at Skelly, Florala or Andalusia. If only there is only one student flying one sortie, the IP should use a representative sample from both sessions in order to cover the majority of MIF items.

Recommended Setup:
IC: 3, 4 6, 7, & 8
Alternate Manual Setup:
- WX: CAVU LGT VRB Standard Day
- Configuration: 7800Lbs, 140 CG, 1400lbs
- No freezes
- Location: A or D Parking, KOZR

Traffic IC: 3 ,4 ,6 ,8, 9, 10, 11
Form IC: None
Additional Materials:
- Canned MEF
- Canned W&B w/Cal factor

Required Student Materials:
- TOLD
- W&B
- F70

Session 1:
THROTTLE – 100%: N2 INCR/DECR switch fails to full increase
BEFORE T/O CHECKLIST – COMPLETED (Initial Take-off): IGV failure Closed
BEFORE T/O CHECKLIST – COMPLETED (Initial Take-off): Engine Compressor Stall #2
BEFORE T/O: Zero engine oil pressure (Indication only)
IN FLIGHT: Engine Failure Complete – no other indications – restart option.
IN FLIGHT: Clutch fails to reengage
BEFORE T/O Main XMSN Oil Temp gage fails
IN FLIGHT: Main Driveshaft Failure
IN FLIGHT: Control Stiffness Collective
IN FLIGHT: Blocked Pitot Tube
IN FLIGHT: Complete Loss of Tail Rotor Thrust
IN FLIGHT: MFD Attitude Indication failure

Session 2:
THROTTLE – 100%: N2 INCR/DECR switch fails to full decrease
BEFORE T/O CHECKLIST – COMPLETED (Initial Take-off): Low Side Gov Failure
BEFORE T/O: High Engine Oil Temp
IN FLIGHT: Engine Overspeed Fuel Control
IN FLIGHT: Engine fire (in flight – Fuel/oil press OK – no indications of fire)
IN FLIGHT: Trans Oil Temp High False Indication
IN FLIGHT: Engine Failure Complete
IN FLIGHT: Clutch fails to disengage
IN FLIGHT: Control Stiffness Cyclic
IN FLIGHT: Loss of Tail Rotor Components
IN FLIGHT: Blocked Static Tube
IN FLIGHT: MFD Invalid Input

5. Grading. See Syllabus for grading standards. Basic Aircraft control standards are very liberal during "controllable" EPs (+/- 1000 ft alt, +/- 60 degrees heading, +/- 20 KIAS airspeed). IPs should use good judgment, but as an example students should not gain more than 1000' during a Fuel Control overspeed and should not go below 40 KIAS during an autorotational profile when they are looking for Min Rate of Descent.

Contact Phase Guidance (C1101-C1690)

1. Background. The Contact Phase contains contact maneuvers which are interspersed throughout the program. This guidance is specifically for the initial flights, Team solo and the Contact Evaluation. This guidance is designed to meet syllabus requirements and prepare the student for these flights.

2. Student Preparation. Review MDS 11-series regulation for guidance on maneuver criteria. Students can expect daily questions covering aerodynamics, SOP, systems, and the –10 (especially Chaps 5 & 9) or the -1 (especially Chap 3 & 5). Flight-line Quizzes and Stand-up EPs will be administered on a regular basis in accordance with chapter 5 of SUPT-H syllabus.

3. Mission Planning. SP should be prepared at the briefing with the approved 23FTS Frag Card filled out with pertinent information regarding instructor pilot, call sign, aircraft information, sortie designator, etc. SP should also include a complete TOLD card for the Gross Weight and Cal factor of the aircraft they will fly that day. For early brief times where the tail numbers are not available prior to the mass briefing, it is acceptable for the class to run a generic TOLD at an approximate Gross Weight. In this case the TOLD should either be reconfirmed at the table with the instructor or at the aircraft prior to flight. Students must fill out a Risk Assessment for the IP and Ops Sup to review and initial. Students will ensure their GO-No-Go status via GTIMS and sign off any applicable E-FCIFs prior to the mass briefing. Students should be knowledgeable and able to discuss any changes covered in recent E-FCIFs or Ops Notes.

4. Mission Execution.

a. The first 8 flights in contact **may** be flown without force trim. This will allow the students to get a feel for the aircraft's "neutral" control position. **IPs in the contact and following phases will teach the students how to use the force trim system and not just fight against it.**

b.. Mass briefing. Students should be prepared to brief / discuss the following prior to flight during the Mass briefing:

a). Weather from the Ft Rucker (MEF) Mission Execution Forecast
b). NOTAMS and TFRs
c). Daily CRM
d). Special Interest Items (SII)
e). Emergency Procedures
f). General Knowledge
g). GO-No-GO status
h). Bird status i.e. BAM & AHAS
i). Class specific daily briefing slides.

c. C1101-C1404. These sorties will include continued development of hover / taxi operations, basic aircraft control, contact maneuvers, emergency procedures, and radio procedures necessary for basic helicopter pilots.

d. C1401-C1402. This sortie should include all maneuvers, but the focus is on emergency procedures. **IP will demonstrate remote procedures. IP will select an RT near the corridor or stage field to demonstrate proper WETPASTE and remote approach / TO procedures. IP will ensure positive flight following through either HUB radio or tower. IP will annotate RT location in the Additional Crew Comments section of the Risk Assessment.**

e. C1501. This sortie is an optional contact team solo (students will not exceed a 4 day layoff between C1302 and C1501). Complete boldface sheet prior to flight. An IP will supervise from the tower and aid in switching students. Students are allowed to perform all takeoffs, normal and steep approaches, and slide landings during this ride. All maneuvers will be flown from the right seat. Expect general knowledge questions on solo requirements. **Bingo fuel is set at 500 lbs. This sortie is a No Grade or U overall.**

f. C1690. The evaluator will brief the mission profile. All contact maneuvers and emergency procedures are required with the exception of 180 autorotations and anti-torque approach. **Failure to meet any MIF results in an overall U.**

g. C4101. Night Contact. All flying sortie requirements must be performed no earlier than ½ hour after official sunset and no later than ½ hour prior to official sunrise. Students should take into account solar and lunar data from the MEF and incorporate it into the weather portion of the mass briefing. Students should also review the 11-217v3 for additional night operations information.

Comment [BRH1]: Can we move these to where they occur in sequence, it is confusing having them in the early prtion when they occur in the latter.

5. Grading. See SUPT-H Syllabus for grading standards.

Instrument Phase Guidance (SI1101-SI1303 & I1401-I1690)

1. Background. The Instrument Phase includes instrument simulator (SI11XX, SI12XX, SI13XX), and aircraft sorties (I14XX, I15XX, I16XX). Instructor note: The instrument approach briefing is a briefing, not a checklist and does not require a call and response type of execution.

2. Student Preparation. Review MDS 11- series regulation for guidance on maneuver criteria. Additionally, students can expect daily questions covering aerodynamics, SOP, MDS 11- regulation, systems, the –10 (esp. Chaps 5 & 9), the – 1 (esp. Chap 3 & 5), AFI 11-202v3 and AFI 11-217v1,2,3.

3. Mission Planning: A Form 70 flight log is also strongly recommended for the instrument phase. Flight-line Quizzes and Stand-up EPs will be administered on a regular basis in accordance with chapter 5 of the SUPT-H syllabus.

4. Mission Execution.

a. Sortie descriptions. Reference the SUPT-H syllabus for sortie description and durations.

b. Medium availability. Due to the dynamic nature of aircraft and simulator availability if the WST (simulator) is unavailable, the events in this category of training may be flown in the aircraft. Likewise, if the aircraft is unavailable the following sorties may be flown in the WST: I1401, I1501, and I1690.

5. Grading. See SUPT-H Syllabus for grading standards.

Navigation Phase Guidance (N2101-N2102)

1. Background. The Navigation Phase is to familiarize students with cross-country O&B procedures. There are numerous ways to accomplish these sorties. The recommended format is for a two-day overnight trip to Moody or Patrick, or a separate one-day trip to Hurlburt and another one-day trip to a local airport (Monroeville, Eufaula). Navigation will be accomplished by the student in the jump seat (single students may navigate from the pilot's seat).

2. Student preparation / Mission Planning:

a. Plan a route to briefed destination on a VFR sectional that includes a minimum 3 turn points en route.

b. **Coordinate Orders, PPRs, Lodging, Transportation**. **Do not forget to plan around posted Dam, Prison, and Power Plant No Fly areas (East of Dothan, SE of Marianna) and to check for TFRs.**

c. Consult FLIP, complete Form 70 (time en route, continuation fuels, radio/nav freqs, etc) using manual planning techniques and not PFPS, complete DD-175, get a DD-175-1 from weather (must be ordered approx 24 hours prior to take off), and prepare the map (NIBs are technique only for this phase but highly recommended).

d. Students are to ensure they have spent appropriate time preparing. Students have been cross-country before and are expected to be well prepared. **Poor planning will result in an overall U for the ride.** (Note: students are allowed to use PFPS for planning after successful completion of N2102).

e. As a technique, students may use the **P-WANTS** check for every stopover.
- **P**: PPR – Ensure PPR is reserved and ETE will allow you to arrive during the window.
- **W**: Weather – Check enroute / arrival weather via -1 weather briefing.
- **A**: Alternate – Confirm alternate airfield availability and/or alternate mission as required.
- **N**: NOTAMs – Check all applicable NOTAMs and TFRs
- **T**: TOLD – Compute / verify TOLD per current and expected conditions
- **S**: Self – Ensure go-no-go, crew rest, risk, and Ops Sup authorization prior to flight

3. Grading. See SUPT-H syllabus for grading standards.

4. IPs should emphasize AFI 11-202 Vol 3 duty day and crew rest limitations.

Day Remote Phase Guidance (Through Team Solo) (R2101-R2401)

1. Background. The Remote Phase contains day flights. **This guidance is through Remote Team solo.** Students are allowed to use available navaids to help them find their refueling airfield. Navigation divert should be performed at least twice in this category of instruction. Navigation will be conducted by the student in the pilot's seat.

2. Student Preparation. Students should review pertinent academic courseware, student guides, SOP, -10, -1, syllabus, and applicable items in the MDS 11-series regulation for guidance on maneuver criteria. Flight-line Quizzes and Stand-up EPs focusing on the SOP and the MDS 11-series regulation (as well as all information from contact) will be administered on a regular basis.

3. Mission Planning:

a. Unless otherwise directed or coordinated students should plan to fly to two RTs. One navigation leg should be in excess of 20 minutes, the other should be short (as near as direct as possible) to allow for adequate RT training (student flight commanders can authorize longer legs if the student is experiencing navigational difficulty). Unless otherwise directed or coordinated the required 10 - 20 minute navigation leg will begin at the corridor release point (the time spent in the corridor is generally not counted as part of the student's 10 - 20 minutes of navigation).

b. Students may use PFPS for their routes/Form 70 however students are required to complete map preparation. Students not responsible for navigation (jump seat) will be prepared to assist in navigation duties and maps will be prepared accordingly with labeled turn points and an AF Form 70 at a minimum. NIBs are required on all navigation legs. Timing and distance marks are highly recommended.

c. Students should verify the currency of each RT prior to flight. RT diagrams, sketches, WETPASTE cards are **NOT** required items and should not be used during this phase of training**.**

d. The 1:250K JOG chart will be primarily used for navigation and mission execution however 1:50K charts may be used to study the area from IP to the target RT.

4. Mission Execution

a. Corridors as well as airfield overviews should be covered during the route briefing. At a minimum, SPs should be prepared to discuss information covered in the In-Flight Guide for both the corridors and intended point of refuel. IPs will not tolerate unfamiliarity in the air when it is not addressed on the ground.

b. Clear RT communication and situational awareness need to be emphasized as an overall CRM tool.

c. GPS utilization.

GPS POWER - OFF, until first RT
ROUTE GUIDANCE - NO
TERMINAL GUIDANCE - YES

The IP will reserve the right to fail the GPS at any time if the student is showing an over reliance on the GPS' capabilities.

d. Power available checks. The course syllabus requires that students not only compute the initial TOLD numbers as part of performance planning but also to "Reconfirm power requirements as appropriate." **Remember to reference the actual temp and PA at the time of the check.** If you fail to do so you are failing to perform the maneuver correctly and should receive the appropriate maneuver procedure grade of U or F. Compare predicted numbers to the Power Available Check. The purpose is to develop the habit of verifying aircraft performance against predicted values.

eThe student in the Pilot seat will mainly be responsible for navigation. However, if the student in the jump seat is responsible for navigation, extra emphasis must be placed on clearly delineating crew responsibilities in the brief.

f. Identifying Landing Zones (RTs). **The student navigating is primarily responsible for identifying the RT.** It is permissible for an IP to identify (call out) an RT to the student if the student is displaying sufficient positional awareness and is in the vicinity of the RT.

g. C2101. Contact Low-level/Power Recovery autorotations. This sortie starts the transition to the low level environment. Low level autos are the emphasis, along with straight-ahead and 180 power recovery autorotations that prepare the student for the multiengine fleet.

5. Grading. See SUPT-H syllabus for grading standards.

Day Tactical Phase Guidance (SEP1301, DT2101-DT3490)

1. Background. The Day Tactical Phase is broken into different units that eventually culminate in a low-level formation evaluation. Low-level flight will normally occur between 100 and 200 AGL. Low-level flight is only authorized within the surveyed low-level area (designated on the 23 FTS Master CHUM map by a yellow line around AO Vanguard and AO Bearcat). Navigation will be the responsibility of the student in the pilot seat up through DT 2402. Navigation on DT 3101 through DT 3102 (high formation) will be the responsibility of the student in the jump seat with assistance by the IP. Navigation on DT 3201 through DT3590 will be the responsibility of the student in the front seat.

2. Student Preparation. Students should review pertinent academic courseware, student guides, SOP, -10, -1, and applicable items in the MDS 11-series regulation for guidance on maneuver criteria. Flight-line Quizzes and Stand-up EPs focusing on the SOP and the MDS 11-series regulation (as well as all information from any previous unit of training) will be administered on a regular basis.

3. Mission Planning.

a. Unless otherwise directed or coordinated plan to fly to two RTs. **Navigation duration is dependent on sortie type.** The leg to the second RT should be as short as possible (as near as direct as possible) to allow for adequate RT training (student flight commanders can authorize longer legs if the student is experiencing navigational difficulty). Students should have a briefed sequence of events (SOE) for each planned RT that maximizes training time.

b. **Students may use PFPS for their routes/Form 70 and to print maps. They must be intimately familiar with the RTs involved in their sortie. NIBs are required on all navigation legs. Students not responsible for navigation will be prepared to assist in navigation duties and maps will**

be prepared accordingly. Students will designate a low-level ingress point on their route. **Note:** The low-level ingress point is the point where you intend to descend low-level and is not necessarily a turn point. Students should review hi/lo recon criteria as a part of their mission preparation. **Students will avoid towers, cities, towns, and chicken houses (if you can see the base of a tower or chicken houses, expect a route deviation to avoid the conflict).**

c. Time-On-Target (TOT). **TOT is the calculated Zulu time that your aircraft will arrive at your target (RT).** TOT timing is graded based on the time the aircraft is "skids down" in the RT. Ridiculously slow (IP judgment) airspeed adjustments to hit a TOT are not authorized. **Each student will identify their TOT during the mission brief and confirm it again at take-off .** If factors outside the students control affect an on-time take-off, a TOT adjustment, called a Rolex, must be briefed and approved by the IP or EP prior to take-off. Place extra emphasis on proper mission planning to ensure that there is sufficient fuel for the required mission profile.

d. Threat degradation. Students should consider anything marked as a hazard in red as a simulated potential tactical threat and should plan to avoid hazards to the maximum extent. NOE boxes and populated areas as well should be avoided as much as possible with the exception that avoiding these areas will reduce training effectiveness. If a NOE box must be transitioned, the advisory frequency must be tuned and monitored.

Formation Phase Guidance

a. The Mission Execution Sequence Sheet (MESS) portion of the frag card is highly important to formation integrity in that it provides a script of all significant events throughout the mission.

b. The formation should establish either a Blue or White internal frequencies for the formation. If more than one formation is launching at the same time, prior coordination should be made between the crews to de-conflict both internal frequencies as well as routing.

c. There are many different ways in which to brief the formation. Power Point is very useful and is recommended but not required. Students are encouraged to brief the formation without the use of Power Point at least once prior to their formation check ride.

e. As a general rule, attempt to use turn points that are no closer than 1 nautical mile from towers. The MDS 11-series regulation states that pilots will avoid all microwave, radio, TV and other tall towers by $^{1}/_{3}$ nautical miles and remaining clear of supporting or "guy" wires. Using a turn point that is just outside 1/3 NM from a tower **does not** necessarily meet the 58 OGI 11-202, 23 FTS Sup 1 requirement of not using towers and wire intersections as turn-points because of the associated hazards. Avoid flying parallel to wires with less than ½ NM lateral clearance. Flights over wires should be at supporting structures or wire marking devices. **An intersection with a grommet or name signifies a populated area and should not be used as a turn point.**

f. The IP or evaluator will downgrade students (Mission Planning, Decision Making, Risk Management and/or Situational Awareness) who plan too close to an obstacle. If in doubt as to the suitability of a turn point, find an instructor prior to the flight and/or during the planning process to clarify turn point selection criteria.

4. Mission Execution.

a. GPS utilization.

GPS POWER - ON
ROUTE GUIDANCE - YES for DT2202 through DT 3490
TERMINAL GUIDANCE - YES

The IP will reserve the right to fail the GPS at any time if the student is showing an over reliance on the GPS' capabilities.

b. **By the end of these three units of training (DT2101 – DT2302)**, each student should perform a minimum of one instrument approach.

c. SEP1301. See Syllabus for sortie description. Students should come to the briefing with a low-level mission plan. Practice a representative cross section of critical action and non-critical action emergency procedures. Focus on dual-tach EPs. EPs should be given in a low level environment and should be taken or discussed to a logical conclusion. Perform inadvertent IMC procedures.

Recommended Profile: Conduct DTAC/Single ship sortie in local area with hotgas at Andalusia. Idle on alpha or delta pads at Cairns. First student flies to Andalusia , second student flies back. Both students in front, IP at IOS station, cockpit IOS stowed. Student in right seat will act as Aircraft Commander. Student swap at Andalusia in-place. If only there is only one student flying one sortie, the IP should use a representative sample from both sessions in order to cover the majority of MIF items.

Recommended Setup:
IC: 5, 6, 7
Alternate Manual Setup:
- WX: CAVU@KOZR, Squall Line NW, TSRA w/in 30 nm of KOZR, wind 22010G15
- Configuration: 7800Lbs, 140 CG, 1400lbs
- No freezes
- Location: A or D Parking, KOZR

Traffic IC: 3 ,4 ,6 ,8, 9, or 10
Form IC: None
Additional Materials:
- Canned MEF
- Canned W&B w/Cal factor

Required Student Materials:
- TOLD
- W&B
- Tac Frag/F70
- Map

Session 1:
STARTUP: Clutch Fails to Engage
HOVER CHECK: Power Assurance Check failure
BEFORE T/O CHECKLIST – COMPLETED (Initial Take-off): Low Side Gov Failure
BEFORE T/O: Engine Oil Cooler Fan failure
IN FLIGHT: Engine Chip light – no failure
IN FLIGHT: Fuel Filter Clogged
IN FLIGHT: Transmission Temp High Real Indication
BEFORE T/O: Rotor Tach Failure
ON APPROACH: Fixed Pitch Setting (low)
IN FLIGHT: Hydraulic Power Failure
IN FLIGHT: RS422 XLINK Fail

Session 2:
IN FLIGHT:: IGV failure Closed at max power check
BEFORE T/O: Ng Tach Gen Failure
IN FLIGHT: Engine Overspeed Fuel Control Failure/Gov EMER/AUTO switch failure
IN FLIGHT: Low Transmission Pressure
IN FLIGHT: Trans Chip light
IN FLIGHT: Tail Rotor Vibration
IN FLIGHT: Loss of T/R Components (battle damage)
IN FLIGHT: Cyclic Hardover
IN FLIGHT: Radar Altimeter Failure

5. Grading. See SUPT-H syllabus for grading standards.

NVG Contact Phase Guidance (NR4101-NR4102)

1. Background. **The NVG Phase** is broken into different units, NVG Contact and NVG Remote. The NVG contact maneuvers phase is designed to transition to NVGs in a very controlled environment. Training cannot begin until after sunset + 30 min. Students will plan the route and are primarily responsible for navigation with the assistance of the IP.

2. Student Preparation. Students should review pertinent academic courseware, student guides, SOP, -10, -1, and applicable items in the MDS 11-series regulation for guidance on maneuver criteria. Flight-line Quizzes and Stand-up EPs focusing on the SOP and the MDS 11-series regulation (as well as all information from contact, instruments and day remotes) will be administered on a regular basis.

3. Mission Planning.

a. Students should plan for a contact sortie at a stage field for NR4101 and plan to a large unrestricted RT for NR4102.

b. Smartpacks should contain a complete 23FTS Frag Card and TOLD card.

c. A form 70 for the mission is required for the NR4102 and is also recommended for NR4101.

4. Mission execution.

a. Sortie descriptions. Reference the SUPT-H syllabus for sortie description and durations

Comment [BRH2]: Add pertinent guidance to plan.execute these rides

Comment [BRH3]:

5. Grading. See SUPT-H syllabus for grading standards.

NVG Remote Phase Guidance (SEP1302-SEP1303, NR4201-NR4402)

1. Background. The NVG Remote Phase contains NVG flights. Students are allowed to use available navaids to help them find their refueling airfield or during a navigation divert. Navigation will be conducted from the pilot's seat.

2. Student Preparation. Students should review pertinent academic courseware, student guides, SOP, -10, -1, and applicable items in the MDS 11-series regulation for guidance on maneuver criteria. Flight-line Quizzes and Stand-up EPs focusing on the SOP and the MDS 11-series regulation (as well as all information from any previous unit of training) will be administered on a regular basis.

3. Mission Planning.

a. Mission planning guidance is the same as Day Remote Phase.

b. Students must ensure selected RT's are approved for night operations as well as verify proper night FM frequency usage.

c. Some airfields and stage fields have special operating hours at night so refueling options should be verified during mission planning.

4. Mission Execution.

a. GPS utilization.

GPS POWER - OFF, until first RT
ROUTE GUIDANCE - NO
TERMINAL GUIDANCE - YES

The IP will reserve the right to fail the GPS at any time if the student is showing an over reliance on the GPS' capabilities.

b. . NOTE. Sorties NR4101, NR4102, and NR4401 may be accomplished in the simulator provided WST availability and Flt/CC approval.

c. SEP1302. See Syllabus for sortie description. Students should come to the briefing with an NVG remote mission plan. Practice a representative cross section of critical action and non-critical action emergency procedures. Practice dual-tach EPs. EPs should be given in an NVG environment and should be taken or discussed to a logical conclusion. Sortie should be performed at a high DA, preferably the WST high-altitude database.

Comment [BRH4]: Can we move this to the NVG remote phase since this when we fly it? Confusing to have it here

Recommended Profile: Conduct NVG Remote sortie in local area with hotgas at Florala. Idle on alpha or delta pads at Cairns. First student flies to Florala , second student flies back. Both students in front, IP at IOS station, cockpit IOS stowed. Student in right seat will act as Aircraft Commander. Student swap at Florala in-place. If only there is only one student flying one sortie, the IP should use a representative sample from both sessions in order to cover the majority of MIF items.

Recommended Setup:
IC: 15, 16, 20
Alternate Manual Setup:
- WX: CAVU LGT VRB Standard Day, 80-100% Illum
- Configuration: 7800Lbs, 140 CG, 1400lbs
- No freezes
- Location: A or D Parking, KOZR

Traffic IC: 3 ,4 ,6 ,8, 9, 10, 11
Form IC: None
Additional Materials:
- Canned MEF
- Canned W&B w/Cal factor

Required Student Materials:
- TOLD
- W&B
- Tac Frag/F70
- Map

Session 1:
BEFORE T/O CHECKLIST – COMPLETED (Initial Take-off): IGV failure Closed
BEFORE T/O CHECKLIST – COMPLETED (Initial Take-off): Low Side Gov Failure
HOVER CHECK: Complete Loss of TR Thrust
IN FLIGHT: Engine Overspeed Governor Failure
IN FLIGHT: Engine fire (in flight – Oil pressure falling)
IN FLIGHT: Engine Fuel Pump Failure
IN FLIGHT: Droop Compensator Failure
IN FLIGHT: Main Driveshaft Vibration/Failure
IN FLIGHT: Low Transmission Pressure
IN FLIGHT: Flight Control Malfunction – Binding
IN FLIGHT: Collective Hardover
IN FLIGHT: Compressor Stall
IN FLIGHT: Main Gen Failure – Not resettable
IN FLIGHT: STBY attitude indicator failure
IN FLIGHT: EDC1 Failure

Session 2:
IN FLIGHT: Engine Failure Complete
IN FLIGHT: Engine Overspeed Fuel Control
IN FLIGHT: Engine fire (in flight – Fuel pressure falling)
IN FLIGHT: Fuel Boost Pump Failure- Left
IN FLIGHT: Nf Accessory Gearbox Failure
IN FLIGHT: Transmission Temp High Real Indication
BEFORE T/O (Take-off): Fixed Pitch Setting (High)
IN FLIGHT: Tail Rotor Vibration/Loss of T/R Components (battle damage)
IN FLIGHT: Cyclic Hardover
IN FLIGHT: Main Gen failure – Resettable
IN FLIGHT: ADC 1 Fail
IN FLIGHT: STBY airspeed indicator failure
IN FLIGHT: Radar Altimeter Failure

d. SEP1303. See Syllabus for sortie description. Students should come to the briefing with an NVG remote mission plan. Practice a representative cross section of critical action and non-critical action emergency procedures. Practice dual-tach EPs. EPs should be given in an NVG environment and should be taken or discussed to a logical conclusion.

Recommended Profile: Conduct NTAC/Single ship sortie in local area with hotgas at Andalusia or Florala. Cold or Idle on alpha or delta pads at Cairns. First student flies to Andalusia and Florala , second student flies back. Both students in front, IP at IOS station, cockpit IOS stowed. Student in right seat will act as Aircraft Commander. Student swap at Florala or Andalusia in-place. If only there is only one student flying one sortie, the IP should use a representative sample from both sessions in order to cover the majority of MIF items.

Recommended Setup:
IC:,13, 14, 15,16, 19, & 20
Alternate Manual Setup:
- WX: CAVU LGT VRB Standard Day, 5-35% Illum
- Configuration: 7800Lbs, 140 CG, 1400lbs
- No freezes
- Location: A or D Parking, KOZR

Traffic IC: 3, 4, 9, 10, or 11
Form IC: None
Additional Materials:
- Canned MEF
- Canned W&B w/Cal factor

Required Student Materials:
- TOLD
- W&B
- Tac Frag/F70
- Map

Session 1
HOVER CHECK: Power Assurance Check failure
BEFORE T/O CHECKLIST – COMPLETED (Initial Take-off): IGV failure Closed
BEFORE T/O: Engine Oil Cooler Fan failure
IN FLIGHT: Engine Overspeed Fuel Control
IN FLIGHT: Engine Fuel Pump Failure
IN FLIGHT: Engine fire (in flight – Fuel/oil press OK)
IN FLIGHT: Nf Accessory Gearbox Failure
IN FLIGHT: Fuel Filter Clogged
IN FLIGHT: Loss of T/R Components (battle damage)
IN FLIGHT: Control Stiffness Collective
IN FLIGHT: EDC1 Failure
IN FLIGHT: RS422 XLINK Fail

Session 2
HOVER CHECK: Complete Loss of TR Thrust
BEFORE T/O CHECKLIST – COMPLETED (Initial Take-off): Low Side Gov Failure
BEFORE T/O CHECKLIST – COMPLETED (Initial Take-off): Fixed Pitch Setting (High)
BEFORE T/O: Ng Tach Gen Failure
IN FLIGHT: Engine Failure Complete
IN FLIGHT: Engine fire (in flight – Oil pressure falling)
IN FLIGHT: Control Stiffness Cyclic
IN FLIGHT: ADC 2 Fail
IN FLIGHT: Radar Altimeter Failure
IN FLIGHT: Droop Compensator Failure
IN FLIGHT: Electrical fire (in flight)
SHUTDOWN: Throttle failure on engine shutdown

5. Grading. See SUPT-H syllabus for grading standards.

Night Tactical Phase Guidance (NT4101-NT4390)

1. Background. **This phase introduces students to low-level NVG flying.** This guidance is for low-level NVG flying. Low-level flight will normally occur between 100 and 200 AGL. Low-level flight is only authorized within the surveyed low-level area (designated on the 23 FTS Master CHUM map by a yellow line around AO Vanguard and AO Bearcat). Navigation/mission management will be the responsibility of the student in the Pilot's seat. **Students should avoid towers, cities and towns, and chicken houses (if you can see the base of a tower or chicken houses, expect a route deviation to avoid the conflict).**

2. Student Preparation. Students should review pertinent academic courseware, student guides, SOP, -10, -1, and applicable items in the MDS 11-series regulation for guidance on maneuver criteria. Flight-line Quizzes and Stand-up EPs focusing on the SOP and the MDS 11-series regulation (as well as all information from any previous unit of training) will be administered on a regular basis.

3. Mission Planning.

a. Mission planning guidance is the same as Day Tactical Phase.

b. Students must ensure selected RT's are approved for night operations as well as verify proper night FM frequency usage. Students should try to take an RT's proximity to populated areas into account as a general consideration for noise abatement. Slight modification of and RT's pattern or usage may be appropriate in order to continue to "fly neighborly."

c. Students should aim to have the route/obstacles memorized to the greatest extent possible.

4. Mission Execution

a. GPS utilization.
GPS POWER - ON
ROUTE GUIDANCE - YES for DT2202 through DT 3490
TERMINAL GUIDANCE - YES

The IP will reserve the right to fail the GPS at any time if the student is showing an over reliance on the GPS' capabilities.

b.NOTE. Sorties NT4101, NT4102, and NT5101 may be accomplished in the simulator provided WST availability and Flt/CC approval.

5. Grading. See SUPT-H syllabus for grading standards. Sorties NT5101 through NT5202 are graded NG or U overall.

NVG Formation Phase Guidance (NT5101-NT5202)

1. Background. This phase introduces students to NVG formation flying in both high-level and low-level environments. High-level en route flight will normally be conducted at or above 300 feet AGL. Low-level flight will normally occur between 100 and 200 AGL. Low-level flight is only authorized within the surveyed low-level area (designated on the 23 FTS Master CHUM map by a yellow line around AO Vanguard and AO Bearcat). Navigation/mission management will be the responsibility of the student in the Pilot's seat. **Students should avoid towers, cities and towns, and chicken houses (if you can see the base of a tower or chicken houses, expect a route deviation to avoid the conflict).**
Students will fly to a local stage field or large flat RT during this phase.

2. Student Preparation. Students should review pertinent academic courseware, student guides, SOP, -10, -1, and applicable items in the MDS 11-series regulation for guidance on maneuver criteria. Flight-line Quizzes and Stand-up EPs focusing on the SOP and the MDS 11-series regulation (as well as all information from any previous unit of training) will be administered on a regular basis.

3. Mission Planning.

a. Mission planning guidance is the same as Day High-Level and Low-Level Formation phases.

b. Students will plan to fly one NVG high formation route. Students will fly to a local stage field or large flat RT for this sortie.

c. Students will plan to fly two NVG low-level formation routes. Students should aim to have the route/obstacles memorized to the greatest extent possible. Students should use the GPS to assist navigation and TOT to the max extent possible.

4. Mission Execution

a. GPS utilization.
GPS POWER - ON
ROUTE GUIDANCE - YES
TERMINAL GUIDANCE - YES

The IP will reserve the right to fail the GPS at any time if the student is showing an over reliance on the GPS' capabilities.

5. Grading. See SUPT-H syllabus for grading standards. Sorties NT5101 through NT5202 are graded NG or U overall.

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UH to TH Conversion Guidance

1. Background. This phase is designed to transition a SUPT-H student from the UH-1H airframe to the TH-1H airframe. The phase consists of academics one preflight, two contact sorties, and one instrument sortie.

2. Student Preparation. Students should review pertinent academic courseware, student guides, SOP, -1, and applicable items in the MDS 11-series regulation for guidance on maneuver criteria.

3. Mission Planning. Students should plan for sorties in accordance with Contact and Instrument phase guidance as applicable.

4. Mission Execution

5. Grading. See SUPT-H syllabus for grading standards.

APPENDIX

GTIMS Instructions

A. **Change Of Status (i.e. CAP, DNIF, Syllabus Deviation).**

1. Open GTIMS
2. Go to **Administration>TIMS Student Manager** in the menu bar.
3. Select the **Student Central** tab.
4. Click the **Change States** button.
5. Click **Manage Individual State**
6. Select type of state
7. Select a student from the drop down menu
8. Click the **Add** button
9. Choose a state category from the drop down menu
10. Select a reason
11. Input a start date and time
12. Input comments concerning the change in the comments box.
13. **Save** changes and close.
14. Create a **4293** and **notification** in order to document the change in status.

B. **Creating 4293.**

1. Open GTIMS
2. Open a grade sheet for the student you wish to write up.
3. Click the **Grey Scroll** from the list of icons in the menu bar.
4. Click **New**

5. Click **Next** twice
6. Input a writeup **Name** and **Date** then click **Next**
7. Select a topic then click **Next**
8. Select the appropriate **syllabus** then click **Next**
9. Select the appropriate **event** then click **Finish.**
10. Input comments in the instructor comments box then **Save**
11. Click on the **Notify** button.
12. Select a **Priority** and **Date**
13. Click the button next to **Send Notification To**
14. Select the appropriate recipients then click **OK**
15. Click **OK** and close.

C. **Signing Electronic Grade Sheets.**

1. Open electronic grade sheet in GTIMS
2. Click the **Edit Reviews** button on the bottom right.
3. In the **Type** drop down menu, click **Formal**.
4. In the **Role** drop down menu, click **Student**.
5. Type initials in the comment box
6. **Save** and close.

D. **Signing Off A 4293.**

1. Open GTIMS.
2. Open a grade sheet
3. Click the **Grey Scroll** in the menu bar at the top
4. Select a write-up.
5. After reviewing the comments add initials in the Student Comments box
6. **Save** and close.

E. **Reviewing Test Scores.**

1. Open GTIMS.
2. Go to **Results>TIMS Gradebook**
3. Click **Review**
4. Select student name in the **Student Syllabi** menu
5. Select an exam under **Syllabus Events,** then press **OK**
6. The gradesheet will open with the **Raw Score** displayed and **Pass/Fail**

Emergency Procedures Maneuver Item File					
CTS No.	*Maneuver*	*Unit / Sorties*			
		PT11 / 1	SEP11 / 1	SEP12 / 2	SEP13 / 3
001	Mission Planning / Briefing / Debriefing		U+	F+	F+
002	Crew Coordination		U+	F+	F+
003	Risk Management / Decision-Making		U+	F+	F+
004	Situational Awareness		U+	F+	F+
005	Task Management		U+	F+	F+
007	General Knowledge	U+	U+	F+	G+
008	Emergency Procedure Knowledge	U+	U+	F+	G+
009	Preflight Procedures	U+	U+	F+	F+
011	Basic Aircraft Control		U+	F+	F+
014	Checklist Procedures	U+	U+	F+	G+
029	Procedures for Engine Fire on the Ground		U+	F	G
030	Engine Start Malfunctions		U+	G	G
031	Standard Autorotation to Touchdown			F	F+
032	180° Autorotation to Touchdown			F	F+
033	Low-Level Autorotation to Touchdown			F	F+
034	Hovering Autorotation to Touchdown			F	F+
039	Hydraulic-Off Approach			F	F+
040	Anti-Torque Approaches			F	F+
041	Manual Throttle Operation		U	F	F
042	N2 / Nf Accessory Gearbox Failure		U	F	F
043	Main Driveshaft Failure		U	F+	F+
044	Low Side Governor Failure		U	F+	F+
045	Engine Overspeed Governor Failure		U	F+	F+
046	Engine Overspeed Fuel Control Failure		U	F+	F+
047	IGV Failure		U	F+	F+
048	Nr Tach Failure		U	F+	F
049	Engine Fuel Pump Failure		U	F+	F+
050	Compressor Stall		U	F+	F+
051	Flight Control Servo Hardover		U	F+	F+
052	Complete Loss of Tail Rotor Thrust		U	F+	F+
053	Loss of Tail Rotor Components		U	F+	F+
054	Hydraulic Power Failure		U	F+	F+
055	Loss of Transmission Oil Pressure		U	F+	F
056	Engine Fire During Flight		U	F+	F
057	Attitude Indicator Failure		U	F+	F
058	Sprag Clutch Failure to Re-Engage		U	F	F+
063	Basic Instruments		U	U	F+
064	Inadvertent IMC Procedures		U	U	F+
103	Engine Shutdown, and Before Leaving the Aircraft Checklists	U+	U+	F+	F+
104	Aircraft Forms	U	U	F+	F+
105	Emergency Egress	U+			
106	Fire Guard Procedures	U			

Contact Maneuver Item File									
CTS No.	*Maneuver*	*Units / Sorties*							
		C11/9	C12/6	C13/2	C14/4	C15/1	C16/1	C21/1	C41/1
001	Mission Planning / Briefing / Debriefing	F+	F+	G+	G+	NG	G+	G+	F+
002	Crew Coordination	F+	F+	G+	G+	NG	G+	G+	F+
003	Risk Management / Decision-Making	F+	G+	G+	G+	NG	G+	G+	U+
004	Situational Awareness	F+	F+	G+	G+	NG	G+	G+	U+
005	Task Management	F+	G+	G+	G+	NG	G+	G+	U+
006	Fuel Management	F+	G+	G+	G+	NG	G+	G+	U+
007	General Knowledge	F+	G+	G+	G+	NG	G+	G+	G+
008	Emergency Procedure Knowledge	F+	F+	G+	G+	NG	G+	G+	G+
009	Preflight Procedures	F+	G+	G+	G+	NG	G+	G+	G+
010	TOLD / Cruise Data	F+	G+	G+	G+	NG	G+	G+	G+
011	Basic Aircraft Control	F+	F+	G+	G+	NG	G+	G+	U+
012	Ground Operations	F+	F+	G+	G+	NG	G+	G+	U+
013	Radio Communication Procedures	F+	F+	G+	G+	NG	G+	G+	F+
014	Checklist Procedures	F+	F+	G+	G+	NG	G+	G+	G+
015	Hovering / Taxi Operations	F+	F+	G+	G+	NG	G+	G+	U+
016	Normal Takeoff	F+	F+	G+	G+	NG	G+	G+	F+
017	Marginal Power Takeoff	F+	F+	G+	G+	NG	G+		U+
018	Maximum Performance Takeoff	F+	F+	G+	G+	NG	G+		U+
019	VFR Navigation	F+	F+	G+	G+	NG	G+	G+	U+
020	Normal Approach	F+	F+	G+	G+	NG	G+	G+	F+
021	Steep Approach	U+	F+	G+	G+	NG	G+		U+
022	Shallow Approach	F+	F+	G+	G+	NG	G+		U+
023	Turning Approach	U+	U	F	G		G		U
024	Approach to Touchdown	F+	F+	G+	G+	NG	G+	G+	U+
025	Slide Landing	F+	F+	G+	G+	NG	G+		U+
026	Go-Around Procedures	U+	F+	G+	G		G		F
027	Abort Procedures	U+	F+	G+	G+		G+		U
028	Slope Operations	U+	F+	F+	G+		G+		U
031	Standard Autorotation to Touchdown	U+	F+	F+	G+		G+	G	
032	180° Autorotation to Touchdown		NG	NG	NG			NG	
033	Low-Level Autorotation to Touchdown		F+	F+	G+		G+	F+	
034	Hovering Autorotation to Touchdown		U+	F+	G+		G+	G	
035	Straight-Ahead Autorotation to Power Recovery							G+	
036	180° Autorotation to Power Recovery							NG	
037	Simulated Engine Failure at hover		U+	F+	G+		G+		
038	Simulated Engine Failure in Flight	U	F+	F+	G+		G+		
039	Hydraulic Off Approach	U	U+	F+	G+		G+		
040	Anti-Torque Approaches		NG	NG	NG				
041	Manual Throttle Operation*(UH-1H or TH-1H WST only)		U+*	F+*	G*		G*		
072	High and Low Reconnaissance Procedures				NG+				
073	Remote Takeoff				NG+				
074	Remote Approach				NG+				
103	Engine Shutdown and Before Leaving the Aircraft Checklists	F+	G+	G+	G+	NG	G+	G+	G+
104	Aircraft Forms	F+	F+	G+	G+	NG	G+	G+	G+
105	Emergency Egress	G	G	G	G+		G+	G	G
106	Fire Guard Procedures	F	G+	G	G	NG	G	G	G

Navigation Maneuver Item File		
CTS No.	*Maneuver Name*	*Unit / Sorties* N21 / 2
001	Mission Planning / Briefing / Debriefing	G+
002	Crew Coordination	G+
003	Risk Management / Decision-Making	G+
004	Situational Awareness	G+
005	Task Management	G+
006	Fuel Management	G+
007	General Knowledge	G+
008	Emergency Procedure Knowledge	G+
009	Preflight Procedures	G+
010	TOLD / Cruise Data	G+
011	Basic Aircraft Control	G+
012	Ground Operations	G+
013	Radio Communication Procedures	F+
014	Checklist Procedures	G+
015	Hovering / Taxi Operations	G+
016	Normal Takeoff	G+
017	Marginal Power Takeoff	G
018	Maximum Performance Takeoff	G
019	VFR Navigation	F+
020	Normal Approach	G+
021	Steep Approach	G
022	Shallow Approach	G
026	Go-Around Procedures	G
071	Navigation Divert Procedures	U
103	Engine Shutdown and Before Leaving the Aircraft Checklists	G+
104	Complete Aircraft Forms	G+

Remote Maneuver Item File					
CTS No.	*Maneuver*	*Unit / Sorties*			
		R21 / 2	**R22 / 2**	**R23 / 2**	**R24 / 1**
001	Mission Planning / Briefing / Debriefing	F+	G+	G+	NG
002	Crew Coordination	F+	G+	G+	NG
003	Risk Management / Decision-Making	F+	G+	G+	NG
004	Situational Awareness	F+	F+	G+	NG
005	Task Management	F+	G+	G+	NG
006	Fuel Management	F+	G+	G+	NG
007	General Knowledge	G+	G+	G+	NG
008	Emergency Procedure Knowledge	G+	G+	G+	NG
009	Preflight Procedures	G+	G+	G+	NG
010	TOLD / Cruise Data	G+	G+	G+	NG
011	Basic Aircraft Control	G+	G+	G+	NG
012	Ground Operations	G+	G+	G+	NG
013	Radio Communication Procedures	F+	G+	G+	NG
014	Checklist Procedures	G+	G+	G+	NG
015	Hovering / Taxi Operations	G+	G+	G+	NG
016	Normal Takeoff	G+	G+	G+	NG
017	Marginal Power Takeoff	G	G	G	
018	Maximum Performance Takeoff	G	G	G	
019	VFR Navigation	F+	F+	G+	NG
020	Normal Approach	G+	G+	G+	NG
021	Steep Approach	G	G	G	
022	Shallow Approach	G	G	G	
023	Turning Approach	F+	F+	G+	
024	Approach to Touchdown	G+	G+	G+	NG
026	Go-Around Procedures	F+	G+	G+	NG
027	Abort Procedures	F+	G+	G+	NG
028	Slope Operations	F+	G+	G+	NG
068	Precision Approach Procedures			G	
069	Non-Precision Approach Procedures			G	
071	Navigation Divert Procedures		U+	F	
072	High and Low Reconnaissance Procedures	F+	G+	G+	NG
073	Remote Takeoff	F+	G+	G+	NG
074	Remote Approach	F+	F+	G+	NG
075	Precision Hover Operations Procedures	F+	F+	F	NG
077	Scanner's Duties	F+	G+	G+	NG
078	Search procedures		U+	F+	
079	Search Patterns		U+	F+	
103	Engine Shutdown and Before Leaving the Aircraft Checklists	G+	G+	G+	NG
104	Aircraft Forms	G+	G+	G+	NG
106	Fire Guard procedures	G	G	G	NG

Instruments Maneuver Item File							
CTS No.	*Maneuver*	*Units / Sorties*					
		SI11 / 3	**SI12 / 3**	**SI13 / 3**	**I14 / 2**	**I15 / 2**	**I16 / 1**
001	Mission Planning / Briefing / Debriefing	U+	F+	F+	G+	G+	G+
002	Crew Coordination	U+	F+	F+	F+	G+	G+
003	Risk Management / Decision-Making	U+	F+	F+	F+	G+	G+
004	Situational Awareness	U+	F+	F+	F+	G+	G+
005	Task Management	U+	F+	F+	F+	G+	G+
006	Fuel Management	F+	G+	G+	G+	G+	G+
007	General Knowledge	F+	G+	G+	G+	G+	G+
008	Emergency Procedure Knowledge	G+	G+	G+	G+	G+	G+
009	Preflight Procedures				G+	G+	G+
010	TOLD / Cruise Data	G+	G+	G+	G+	G+	G+
011	Basic Aircraft Control	F+	G+	G+	G+	G+	G+
012	Ground Operations				F+	G+	G+
013	Radio Communication Procedures	U+	F+	G+	F+	G+	G+
014	Checklist Procedures	F+	G+	G+	G+	G+	G+
015	Hovering / Taxi Operations				G+	G+	G+
038	Simulated Engine Failure In Flight	U+	F+	F	F+	F+	F+
059	Instrument Cockpit Check	U+	F+	G+	G+	G+	G+
060	ITO	U+	F+	F+	F+	F+	F+
061	Unusual Attitude Recovery	U+	F+	G+	G+	G+	G+
062	Instrument Steep Turns	U+	F+	G+			
063	Basic Instruments	U+	F+	G+	F+	G+	G+
064	Instrument Departure Procedures	U+	F+	G+	F+	G+	G+
065	Instrument En Route Procedures	U+	F+	G+	F+	G+	G+
066	Holding Procedures	U+	F+	G+	F+	G+	G+
067	Precision Approach Procedures	F+	F+	G+	F+	G+	G+
068	Nonprecision Approach Procedures	F+	F+	G+	F+	G+	G+
069	Missed Approach	U	F+	G+	F+	G+	G+
105	Aircraft Forms	U+	F+	G+	G+	G+	G+
107	Fire Guard Procedures				G	G	G

Day Tactical Maneuver Item File									
CTS No.	*Maneuver*	*Units / Sorties*							
		DT21/2	DT22/2	DT23/2	DT/25/1	DT31/1	DT32/3	DT33/3	DT34/1
001	Mission Planning / Briefing / Debriefing	F+	F+	G+	NG	F+	F+	G+	G+
002	Crew Coordination	F+	F+	F+	NG	F+	F+	G+	G+
003	Risk Management / Decision-Making	F+	F+	F+	NG	F+	F+	G+	G+
004	Situational Awareness	F+	F+	F+	NG	F+	F+	G+	G+
005	Task Management	F+	F+	F+	NG	F+	F+	G+	G+
006	Fuel Management	F+	G+	G+	NG	G+	G+	G+	G+
007	General Knowledge	G+	G+	G+	NG	G+	G+	G+	G+
008	Emergency Procedure Knowledge	G+	G+	G+	NG	G+	G+	G+	G+
009	Preflight Procedures	G+	G+	G+	NG	G+	G+	G+	G+
010	TOLD / Cruise Data	G+	G+	G+	NG	G+	G+	G+	G+
011	Basic Aircraft Control	F+	G+	G+	NG	F+	F+	G+	G+
012	Ground Operations	G+	G+	G+	NG	G+	G+	G+	G+
013	Radio Communication Procedures	F+	F+	G+	NG	F+	F+	G+	G+
014	Checklist Procedures	G+	G+	G+	NG	G+	G+	G+	G+
015	Hovering / Taxi Operations	G+	G+	G+	NG	G+	G+	G+	G+
019	VFR Navigation	G	G	G	NG	G	G	G	G
023	Turning Approach	F+	F+	F+	NG				
024	Approach to Touchdown	G+	G+	G+	NG	G+	G+	G+	G+
026	Go-Around Procedures	G+	G	G	NG	G+	G+	G	G
027	Abort Procedures	G+	G+	G	NG	F+	G+	G	G
028	Slope Operations	G+	G+	G+	NG		G	G	G
068	Precision Approach Procedures	G	G	G		G	G	G	
069	Nonprecision Approach Procedures	G	G	G		G	G	G	
075	Precision Hover Operations	F+	G+	G	NG		G+	G+	G+
076	Pinnacle / Ridgeline Operations Procedures		U						
077	Scanner's Duties	G+	G+	G+		G+	G+	G+	G+
083	Threat Degradation		U+	F+			F+	F+	
084	Low-Level Navigation	U+	F+	F+	NG		F+	G+	G+
085	Time-On-Target Procedures	U+	U+	F+	NG		F+	F+	F+
086	Evasive Maneuvers		U	F					
087	Low-Level Takeoff	F+	F+	G+	NG				
088	Low-Level Approach	F+	F+	G+	NG				
089	Formation Integrity (CRM)					F+	F+	G+	G+
090	Formation Takeoff — Lead					F+	G+	G+	G+
091	Formation Takeoff — Wing					F+	G+	G+	G+
092	Formation Approach — Lead					F+	G+	G+	G+
093	Formation Approach — Wing					F+	G+	G+	G+
094	Staggered Formation					F+	F+	G+	G+
095	Fluid / Fixed Trail					F+	F+	G+	G+
096	Combat Cruise						F+	G	G
097	Lead Change					F+	F+	G+	G+
098	Crossover					F+	F+	G+	G+
099	Straight-Ahead Rejoin					F+	F+	G+	G+
100	Turning Rejoin					F+	F+	G+	G+
101	Blind Procedures VMC					F+	F+	G+	G+
102	Lost Visual Contact IMC					F+	F+	G+	G+
103	Engine Shutdown and Before Leaving the Aircraft Checklists	G+	G+	G+	NG	G+	G+	G+	G+
104	Aircraft Forms	G+	G+	G+	NG	G+	G+	G	G
106	Fire Guard Procedures	G	G	G	NG	G	G	G	G

NVG Contact / Remote Maneuver Item File					
CTS No.	*Maneuver*	*Unit / Sorties*			
		NR41 / 2	NR42 / 2	NR43 / 2	NR44 / 2
001	Mission Planning / Briefing / Debriefing	F+	F+	G+	G+
002	Crew Coordination	F+	F+	G+	G+
003	Risk Management / Decision-Making	F+	F+	G+	G+
004	Situational Awareness	F+	F+	G+	G+
005	Task Management	F+	F+	G+	G+
006	Fuel Management	G+	F+	G+	G+
007	General Knowledge	F+	G+	G+	G+
008	Emergency Procedure Knowledge	G+	G+	G+	G+
009	Preflight Procedures	G+	G+	G+	G+
010	TOLD / Cruise Data	G+	G+	G+	G+
011	Basic Aircraft Control	F+	G+	G+	G+
012	Ground Operations	F+	G+	G+	G+
013	Radio Communication Procedures	G+	G+	G+	G+
014	Checklist Procedures	G+	G+	G+	G+
015	Hovering / Taxi Operations	F+	F+	F+	G+
016	Normal Takeoff	F+			
017	Marginal Power Takeoff	F+			
018	Maximum Performance Takeoff	F+			
019	VFR Navigation	F	F+	F+	F+
020	Normal Approach	F+			
021	Steep Approach	F+			
022	Shallow Approach	F+			
024	Approach to Touchdown	F+	F+	G+	G+
025	Slide Landing	F+			
026	Go-Around Procedures	G+	G+	G+	G
027	Abort Procedures	G+	G+	G+	G
028	Slope Operations	U	F+	F+	G+
068	Precision Approach Procedures	G	G	G	G
069	Non-Precision Approach Procedures	G	G	G	G
071	Navigation Divert Procedures			F+	F+
072	High and Low Reconnaissance Procedures	NG	F+	G+	G+
073	Remote Takeoff	NG	F+	G+	G+
074	Remote Approach	NG	F+	F+	G+
075	Precision Hover Operations Procedures	U+	F+	F+	F+
076	Pinnacle / Ridgeline Operations			U	U
077	Scanner's Duties	G+	G+	G+	G+
078	Search procedures			F	F+
079	Search Patterns			F	F+
080	Preflight NVGs	G+	G+	G+	G+
081	NVG Limitations	G+	G+	G+	G+
082	Corrective Actions for NVG Malfunctions	G+	G+	G+	G+
103	Engine Shutdown and Before Leaving the Aircraft Checklists	G+	G+	G+	G+
104	Aircraft Forms	G+	G+	G+	G+
106	Fire Guard procedures	G	G	G	G

Night Tactical Maneuver Item File						
CTS No.	*Maneuver*	*Unit / Sorties*				
		NT41 / 2	NT42 / 2	NT43 / 1	NT51 / 1	NT52 / 2
001	Mission Planning / Briefing / Debriefing	F+	G+	G+	NG	NG+
002	Crew Coordination	F+	G+	G+	NG	NG+
003	Risk Management / Decision-Making	F+	G+	G+	NG	NG+
004	Situational Awareness	F+	G+	G+	NG	NG+
005	Task Management	F+	G+	G+	NG	NG+
006	Fuel Management	F+	G+	G+	NG	NG+
007	General Knowledge	G+	G+	G+	NG	NG+
008	Emergency Procedure Knowledge	G+	G+	G+	NG	NG+
009	Preflight Procedures	G+	G+	G+	NG	NG+
010	TOLD / Cruise Data	G+	G+	G+	NG	NG+
011	Basic Aircraft Control	F+	G+	G+	NG	NG+
012	Ground Operations	G+	G+	G+	NG	NG+
013	Radio Communication Procedures	F+	G+	G+	NG	NG+
014	Checklist Procedures	G+	G+	G+	NG	NG+
015	Hovering / Taxi Operations	G+	G+	G+	NG	NG+
019	VFR Navigation	G	G	G	NG+	NG
023	Turning Approach	G	G	G		
024	Approach to Touchdown	G+	G+	G+	NG	NG+
026	Go-Around Procedures	G	G+	G	NG	NG
027	Abort Procedures	G	G+	G	NG	NG
028	Slope Operations	G	G+	G+	NG	NG
068	Precision Approach Procedures		G			
069	Non-Precision Approach Procedures		G			
071	Navigation Divert Procedures		F	F+		
072	High and Low Reconnaissance Procedures		G	G+		
075	Precision Hover Operations Procedures	F+	G+	G+	NG+	NG+
076	Pinnacle / Ridgeline Operations		U	U		
077	Scanner's Duties	G+	G+	G+	NG+	NG+
080	Preflight NVGs	G+	G+	G+	NG+	NG+
081	NVG Limitations	G+	G+	G+	NG+	NG+
082	Corrective Actions for NVG Malfunctions	G+	G+	G+	NG+	NG+
083	Threat Degradation		F+	F+		NG+
084	Low-Level Navigation	U+	F+	F+		NG+
085	Time-On-Target Procedures	U+	F+	F+		NG+
087	Low-Level Takeoff	F+	G+	G+		
088	Low-Level Approach	F+	G+	G+		
089	Formation Integrity (part of CRM)				NG+	NG+
090	Formation Takeoff — Lead				NG+	NG+
091	Formation Takeoff — Wing				NG+	NG+
092	Formation Approach — Lead				NG+	NG+
093	Formation Approach — Wing				NG+	NG+
094	Staggered Formation				NG+	NG+
095	Fluid / Fixed Trail				NG+	NG+
096	Combat Cruise				NG+	NG+
097	Lead Change				NG+	NG+
098	Crossover				NG+	NG+
099	Straight-Ahead Rejoin				NG+	NG+
101	Blind Procedures VMC				NG+	NG+
102	Lost Visual Contact IMC				NG+	NG+
103	Engine Shutdown and Before Leaving the Aircraft Checklists	G+	G+	G+	NG	NG+
104	Aircraft Forms	G+	G+	G+	NG+	NG+
106	Fire Guard procedures	G	G	G	NG	NG

Conversion Maneuver Item File				
CTS No.	*Maneuver*	*Unit / Sorties*		
		PT19 / 1	**C19 / 2**	**I19 / 1**
001	Mission Planning / Briefing / Debriefing		G+	G+
002	Crew Coordination		G+	G+
003	Risk Management / Decision-Making		G+	G+
004	Situational Awareness		F+	F+
005	Task Management		G+	G+
006	Fuel Management		G+	G+
007	General Knowledge		G+	G+
008	Emergency Procedure Knowledge	F+	G+	G+
009	Preflight Procedures	F+	G+	G+
010	TOLD / Cruise Data	F+	G+	G+
011	Basic Aircraft Control		G+	F+
012	Ground Operations		G+	G+
013	Radio Communication Procedures		G+	F+
014	Checklist Procedures		G+	G+
015	Hovering / Taxi Operations		G+	G+
016	Normal Takeoff		G+	G+
017	Marginal Power Takeoff		G+	G+
018	Maximum Performance Takeoff		G+	G+
019	VFR Navigation		G+	G+
020	Normal Approach		G+	
021	Steep Approach		G+	
022	Shallow Approach		G+	
024	Approach to Touchdown		G+	
025	Slide Landing		G+	
026	Go-Around Procedures		G+	
027	Abort Procedures		G+	
028	Slope Operations		F+	
031	Standard Autorotation To Touchdown		F+	
032	180° Autorotation To Touchdown		NG	
033	Low-Level Autorotation To Touchdown		F	
034	Hovering Autorotation To Touchdown		F+	
035	Straight-Ahead Autorotation To Power Recovery		F	
036	180° Autorotation To Power Recovery		NG	
037	Simulated Engine Failure At Hover		F+	
038	Simulated Engine Failure In Flight		F+	
039	Hydraulic Off Approach		F+	
040	Anti-Torque Approaches		NG	
059	Instrument Cockpit Check			F+
060	ITO			F+
061	Unusual Attitude Recovery			F
062	Instrument Steep Turns			F
063	Basic Instruments			F+
065	Instrument Departure Procedures			F+
066	Instrument En Route Procedures			F+
067	Holding Procedures			F+
068	Precision Approach Procedures			F+
069	Non-Precision Approach Procedures			F+
070	Missed Approach			F+
103	Engine Shutdown and Before Leaving the Aircraft Checklists	F+	G+	G+
104	Aircraft Forms	F	G+	G+
105	Emergency Egress	F+	G	
106	Fire Guard procedures	F		

Nav/Remote and Mission Quick Reference – Updated Apr 09					
SORTIE	**END OF CATEGORY**	**MIN GRADE**	**NAV POSITION**	**Nav Duration**	**OTHER**
N2101			JUMP SEAT	As Needed	NEED PPR
N2102	X		JUMP SEAT	As Needed	NEED PPR
R2101			FRONT	20 Min After Corridor	
R2102			FRONT	20 Min After Corridor	
R2201			FRONT	20 Min After Corridor 10 Min if Nav Divert	
R2202			FRONT	20 Min After Corridor 10 Min if Nav Divert	
R2301			FRONT	20 Min After Corridor	
R2302	**X**	**GOOD**	**FRONT**	**20 Min After Corridor**	**Must Meet MIF**
R2401		NG	FRONT	As Directed	No More Than 4 Days After R2302
DT2101			FRONT	10 Min After LL Ingress	
DT2102			FRONT	10 Min After LL Ingress	
DT2201			FRONT	20 Min After LL Ingress	
DT2202			FRONT	20 Min After LL Ingress	
DT2301			FRONT	20 Min After LL Ingress	
DT2302	**X**	**GOOD**	**FRONT**	**20 Min After LL Ingress**	**Must Meet MIF**
DT2501			FRONT	As Directed	No More Than 4 Days After DT2402
DT3101			JUMP / IP	Corridor / No Minimum	
DT3102			JUMP / IP	Corridor / No Minimum	
DT3201			FRONT	10 Min After LL Ingress	
DT3202			FRONT	10 Min After LL Ingress	
DT3301			FRONT	15 Min After LL Ingress	
DT3302			FRONT	15 Min After LL Ingress	
DT3303			FRONT	20 Min After LL Ingress	
DT3490	**X**	**GOOD**	**FRONT**	**20 Min After LL Ingres**	**Must Meet MIF**
NR4101			JUMP / IP	Corridor	
NR4102			JUMP / IP	Corridor	
NR4201			FRONT	10 Min After Corridor	
NR4202			FRONT	20 Min After Corridor	
NR4301			FRONT	20 Min After Corridor	
NR4302			FRONT	20 Min After Corridor	
NR4401			FRONT	20 Min After Corridor	
NR4402	**X**	**GOOD**	**FRONT**	**20 Min After Corridor**	**Must Meet MIF**
NT4101			JUMP	As Needed	
NT4102			JUMP	As Needed	
NT4201			FRONT	10 Min After Corridor	
NT4202			FRONT	15 Min After Corridor	
NT4390	**X**	**GOOD**	**FRONT**	**20 Min After Corridor**	**Must Meet MIF**
NT5101		NG	JUMP	As Needed	GRADE MIF
NT5201		NG	JUMP	As Needed	GRADE MIF
NT5202	X	NG	JUMP	As Needed	GRADE MIF