

b. General

(1) Squadrons shall evaluate pilots for designations at the discretion of the commanding officer per the criteria in the CH53 NATOPS Flight Manual, OPNAV 3710.7, and local SOPs.

(2) Upon the successful completion of the check flight the new Helicopter Aircraft Commander (HAC) will be designated in writing by the commanding officer.

(3) Prerequisite requirements may be waived at the discretion of the commanding officer and details of the waiver will be annotated in the APR.

(4) Flight leadership codes do not chain other syllabus events. Log appropriate T&R syllabus event in addition to flight leadership code. Range, ordnance, and external support will be IAW the appropriate T&R syllabus event.

(5) Re-designation of flight leadership (E coded events) shall be in accordance with Mission and Instructor Designation/Qualifications Chapter in the T&R Program Manual.

c. Crew Requirements. P/P/CC/AO (as required).

d. Ground/Academic Training. Refer to the CH-53 NATOPS, ANTP 3-22.3-CH53, MAWTS-1 ASP, and applicable SOPs.

e. Flight Training. (10 Flights, 13.5 Hours).

HAC-610 1.5 A/S 1 CH-53

Goal. Conduct day HAC review.

Requirement. As directed in the CH-53 NATOPS Flight Manual and OPNAVINST 3710.7, to include but not limited to all practicable operations and procedures contained in the T&R syllabus.

Performance Standards. Demonstrate proficiency and leadership in all phases of CH-53 operations as appropriate. Emphasize NATOPS, ANTP 3-22.3-CH53, MAG and squadron SOPs, and the Instrument Flight Manual.

Prerequisite. Core Skill Advanced complete. The Open and Closed book NATOPS examinations shall be completed prior to the commencement of the check flight.

Range Requirements. CAL/MAL site.

HAC-611 1.5 1 CH-53 N

Goal. Conduct night/NS HAC review.

Requirement. Continuation of review flight to include but not limited to all practicable operations and procedures contained in the T&R syllabus as they pertain to night operations and procedures.

Performance Standards. Demonstrate proficiency and leadership in all phases of CH-53 operations as appropriate. Emphasize NATOPS, ANTP 3-22.3-CH53, MAWTS-1 NVD Manual, MAG and squadron SOPs, and the Instrument Flight Manual.

Prerequisite. Core Skill Advanced complete.

Range Requirements. CAL/MAL site.

HAC-612

2.0 R E 1 CH-53 (N)

Goal. Conduct day into night HAC check.

Requirement. As directed in the CH-53 NATOPS Flight Manual and OPNAVINST 3710.7, to include but not limited to all practicable operations and procedures contained in the T&R syllabus.

Instructor:

Assistant NATOPS Instructor or NATOPS Instructor.

Performance Standards. Squadrons shall evaluate pilots for HAC designation at the discretion of the commanding officer per the criteria in the CH-53 NATOPS Flight Manual, OPNAVINST 3710.7, and local SOPs. This flight will cover all

practicable operations and procedures contained in the T&R syllabus.

Prerequisite. FL-610 and FL-611.

Ordinance. As required.

External Syllabus Support. As required.

HAC-619

A/S 1 Assault Support Aircraft (NS)

Goal. Track Helicopter Aircraft Commander proficiency.

Requirement. To maintain proficiency as a Helicopter Aircraft Commander. Pilot shall plan, brief, lead and debrief the designated event in accordance with the mission performance standards for that event.

Prerequisite.

- Administrative: Designated Helicopter Aircraft Commander.
- Academic: None.
- Simulator: None.
- Flight: DESG-628.

External Syllabus Support. WST/APT (as required)

3. Section Leader (SL)

a. Purpose. To prepare and evaluate the prospective Section Leader's ability to plan, brief and lead an event as a Section Leader.

b. General

(1) The Section Leader syllabus is comprised of four total flights; 2 events focusing on skill-based evaluation and 2 events focusing on tactical METL-based scenarios. Two of the four events may be flown in the simulator. In addition to FL-621, one additional event shall be flown at night.

(2) All prospective Section Leader events shall be evaluated by a designated Division Leader or higher. The SL evaluation flight shall be evaluated by a Flight Lead Standardization Evaluator (FLSE).

(3) Completion of the Section Leader syllabus meets the requirements for designation as Section Leader. At the discretion of the squadron Commanding Officer, a letter designating the pilot as Section Leader shall be placed in the NATOPS jacket and APR. For aircrew that require Core Skill Introduction Refresher training, re-designation will require successful completion of the evaluation event only, at the discretion of the Commanding Officer.

(4) The Section Leader Under Instruction (SLUI) will perform preflight planning, conduct a tactical mission and NATOPS brief, lead a section and conduct a debrief. Evaluation will be based on mission accomplishment, adherence to all applicable directives, orders, SOPs, ATC and course rules. Further evaluation will concentrate on flight safety, section control, formation integrity, and communication procedures. Aircraft should be configured with all weapons and systems required for the scenario.

(5) Prospective Section Leaders shall be designated, core skills complete, HACs with a minimum of 50 aircraft commander hours, who has flown a minimum of three flights as a HAC in a wingman position (HAC-619), and be nominated by the Standardization Board.

(6) The Section Lead proficiency tracking code (SL-629) shall be logged in conjunction with the appropriate 200-400 level event training code every time an aircrew flies an event as a designated section lead.

c. Crew Requirements. P/CP/CC/AO

d. Ground/Academic Training. The following matrix will be used to track academic and administrative training.

Self Paced Readings	Date Complete
Prior to Stage Initiation	
- ANTFP 3-22.5-CH53 TPG	
- ANTFP 3-22.5-RWTACSOP	
- MCWP 5-1 Marine Corps Planning Process	
Lectures	
Prior to Stage Completion	
- Review all previously introduced lectures, placing special emphasis on the following:	
- 6 Functions Integration	
- Mission Analysis	
- MAGTF FSCMs	
- Intelligence Preparation of the Battlespace	
- AFL Briefing CH-53 ASP	
Chalk Talks	
Prior to Stage Completion	
- IIMC Break up and Rejoin	
- Lost Contact rejoin	
- Aerial Refueling Join up and refuel	
- Ground Threat Reaction	
- Air to Ground Gunnery	
- Contingency Planning	
- In Flight Emergency	
Written Exam	
Prior to Stage Completion	
- MAWTS-1 Generated Written Exam	

e. Simulator and Flight Training (4 Events, 6.0 hours)

SL-620 1.5 A/S 2 Assault Support Aircraft (NS)

Goal. Demonstrate the ability to plan, brief, lead and debrief a TERF navigation flight emphasizing flight coordination, flight discipline, lost communications procedures, inadvertent IMC, rendezvous procedures and in-flight emergency coordination in a daytime environment. Emphasis shall be placed on safety, training rules, clear, concise and correct communications, flight control, and area management. Additional emphasis should be placed on timeline management and fuel planning.

Requirement. Plan, brief, lead, and debrief a tactical section flight utilizing principles of CRM and flight leadership to ensure mission success. Flight should offer sufficient opportunity to demonstrate cruise principles, conduct lead changes, cruise and parade formations, and section landings. The SLUI shall demonstrate comprehensive knowledge and understanding of T&R Manual, NATOPS, RW TAC SOP, local SOP, local course rules, and ORM/CRM principles. The SLUI shall accomplish the following criteria:

Plan, brief, lead, and debrief TERF-231, TERF 233, or TERF-331.

A TAC event may be flown if TERF flight is executed. Navigate a route at or below 200' AGL with no fewer than five checkpoints. Execute IAW requirements and performance standards of that event. Utilize and adhere to RW TAC SOP, local SOPs, OPNAVINST 3710, and NATOPS during all phase of the event.

Instructor: Division Leader or higher.

Performance Standards.

- Briefs event IAW SOPs and TTPs.
- Conducts event IAW NATOPS and 3710.
- Maintains proper formation and mutual support to and from working area.
- Ensures effective CRM for navigation and obstacle clearance.
- Demonstrates effective inter and intra cockpit management for precision navigation and flight management.
- Demonstrates directive control of section during TERF phase IAW the brief.
- Effectively manages fuel and airspace.
- Uses clear, concise, and correct communications.
- Accurately recalls and reconstructs event during debrief.
- Provides valid learning points.

Prerequisite.

- Administrative: Designated HAC and Proposed Section Leader.
- Academic: Complete the academic syllabus as directed in the ground/academic training matrix of this section.
- Simulator: None.
- Flight: Minimum three flights as a HAC in a wingman position. (HAC-619)

External Syllabus Support. WST/APT (as required)

SL-621

1.5 A/S 2 Assault Support Aircraft NS

Goal. Plan, brief, lead, and debrief an NVG (HLL or LLL) tactical section flight utilizing principles of CRM and flight leadership to ensure mission success. Flight should emphasize flight coordination, flight discipline, lost communications procedures, inadvertent IMC, rendezvous procedures, and in-flight emergency coordination in a night environment. Additional emphasis should be placed on mission timeline, fuel, and objective area planning.

Requirement. Plan, brief, lead and debrief a section NVG (HLL or LLL) CAL and TERF navigation flight. Flight should offer sufficient opportunity to demonstrate cruise principles, conduct lead changes, cruise and parade formations, and section landings. The SLUI shall demonstrate comprehensive knowledge and understanding of T&R Manual, NATOPS, RW TAC SOP, local SOP, local course rules, and ORM/CRM principles. The SLUI shall accomplish the following criteria:

Navigate a route at or below 200' AGL with no fewer than five checkpoints and remain oriented within 200 meters of course

line. Arrive at the final checkpoint within +/- 1 minute of the planned arrival time.

Instructor: Division Leader or higher.

Performance Standards.

- Plan, brief and fly a route with no fewer than five checkpoints at or below 200 feet AGL.
- Maintain proper formation and mutual support to and from working area.
- Maintain effective instrument and NS scan.
- Demonstrate understanding of NS considerations for section CAL/TERF navigation.
- Accurate TERF navigation utilizing 1:250,000 and 1:50,000 scale maps as appropriate.
- Remain oriented on route within 200 meters.
- Arrive at the final checkpoint within +/- 1 minute of the planned arrival time.
- Ensure effective CRM for navigation and obstacle clearance.
- Demonstrate effective inter and intra cockpit management for precision navigation and flight management.

Prerequisite.

- Administrative: Designated HAC. Proposed Section Leader.
- Academic: Complete the academic syllabus as directed in the ground/academic training matrix of this section.
- Simulator: None.
- Flight: FL-620.

External Syllabus Support. WST/APT (as required)

SL-622

1.5 A/S 2 Assault Support Aircraft (NS)

Goal. Plan, brief, lead, and debrief a day or night tactical section flight utilizing principles of CRM and flight leadership to ensure mission success. Emphasis should be on mission analysis using METT-TSL, the mission planning process, weapons and ASE employment (evasive actions, sectors of fire), integrated objective area planning, flow and escort considerations. Additional emphasis on night considerations as applicable, detailed fuel planning, contingency planning, and mission delegation of tasks.

Requirement. Plan, brief, lead and debrief a day or night section low/medium threat tactical flight to include escort and fire support considerations. The SLUI shall demonstrate comprehensive knowledge and understanding of T&R Manual, NATOPS, RW TAC SOP, local SOP, local course rules, and ORM/CRM principles.

Instructor: Division Leader or higher.

Performance Standards.

- Plan and brief a tactical mission IAW the Rotary Wing TACSOP, ANTTP 3-22.3 and all applicable SOPs.
- Manage the execution checklist.

- Keep section oriented within 200 meters.
- Arrive at LZ +/- 1 minute of L-Hour.
- Land within 0.1 NM or 8-digit grid of pre-briefed landing point.
- Demonstrate proper employment of ASE.
- Demonstrate proper use of tactical formations
- Demonstrate situational awareness of other aircraft through all phases of flight.
- Demonstrate positive control of flight.
- As applicable, demonstrate proper understanding of NS considerations with multiple aircraft, aerial gunnery, and laser employment.
- Demonstrate proper understanding of C4I utilization to facilitate execution and information flow.
- Demonstrate appropriate consideration for threat from planning through execution.
- Demonstrate understanding of aircraft maneuver with regard to threat response in concert with proper aerial gunnery employment.
- Demonstrate proper understanding of escort considerations.
- Demonstrate proper understanding and utilization of secure and active communications.
- Demonstrate understanding of FSCM utilization.
- Demonstrate understanding of contingency considerations.

Prerequisite.

- Administrative: Designated HAC. Proposed Section Leader.
- Academic: Complete the academic syllabus as directed in the ground/academic training matrix of this section.
- Simulator: None.
- Flight: FL-621.

External Syllabus Support. WST/APT (as required).

SL-627

A/S 2 Assault Support Aircraft (NS)

Goal. Tracking code for a co-pilot in a section.

Requirement. To maintain proficiency as a wingman.

Prerequisite.

- Administrative: None.
- Academic: None.
- Simulator: None.
- Flight: None.

External Syllabus Support. WST/APT (as required)

SL-628

1.5

R E 2 Assault Support Aircraft (NS)

Goal. Conduct Day/Night Section leader check utilizing a METL based tactical scenario. Emphasis should be on situational awareness, flight maturity, CRM, and the tactical and operational knowledge required of a Section Lead.

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Requirement. Completion of the DESG 620-622 events meets the requirements for the PUI to be Section Leader designated. PUI shall plan, brief, lead, and debrief a day or night section low/medium threat tactical flight to include escort, and fire support considerations and aerial gunnery. The PUI shall demonstrate comprehensive knowledge and understanding of T&R Manual, NATOPS, RW TAC SOP, local SOP, local course rules, and ORM/CRM principles.

Instructor: FLSE

Performance Standards.

- Plans and briefs a tactical mission IAW the Rotary Wing TACSOP, ANTP 3-22.3 and all applicable SOPs.
- Manage the execution checklist.
- Keeps section oriented within 200 meters.
- Arrive at LZ +/- 1 minute of L-Hour.
- Land within 0.1 NM or 8-digit grid of pre-briefed landing point
- Demonstrate proper employment of ASE.
- Demonstrate proper use of tactical formations.
- Demonstrate situational awareness of other aircraft through all phases of flight.
- Demonstrate positive control of flight.
- As applicable, demonstrate proper understanding of NS considerations with multiple aircraft and aerial gunnery.
- As applicable, demonstrate proper understanding of Laser employment.
- Demonstrate proper understanding of C4I utilization to facilitate execution and information flow.
- Demonstrate appropriate consideration for threat from planning through execution.
- Demonstrate understanding of aircraft maneuver with regard to threat response in concert with proper aerial gunnery employment.
- Demonstrate proper understanding of escort considerations.
- Demonstrate proper understanding and utilization of secure and active communications.
- Demonstrate understanding of FSCM utilization.
- Demonstrate understanding of contingency considerations.

Prerequisite.

- Administrative: Designated HAC. Proposed Section Leader.
- Academic: Complete the academic syllabus as directed in the ground/academic training matrix of this section.
- Simulator: Applicable FL-620 to FL-622 events.
- Flight: FL-622.

External Syllabus Support. WST/APT (as required)

SL-629

A/S 2 Assault Support Aircraft (NS)

Goal. Track Section Leader proficiency.

Requirement. To maintain proficiency as a Section Leader. Pilot shall plan, brief, lead and debrief the designated event in accordance with the mission performance standards for that event.

Prerequisite.

- Administrative: Designated Section Leader.
- Academic: None.
- Simulator: None.
- Flight: DESG-628.

External Syllabus Support. WST/APT (as required)

4. Division Leader (DL)

a. Purpose. To prepare and evaluate the prospective Division Lead's ability to plan, brief and lead an event as a Division Lead.

b. General

(1) The Division Leader syllabus is comprised of four total flights. One of the four events may be flown in the simulator. In addition to FL-632, one of the DLUI events shall be flown at night.

(2) All prospective Division Lead events shall be evaluated by a designated AFL or higher. The DL evaluation flight shall be evaluated by a FLSE.

(3) Completion of Division Leader syllabus meets the requirements for designation as Division Leader. At the discretion of the squadron Commanding Officer, a letter designating the pilot as Division Leader shall be placed in the NATOPS jacket and APR. For aircrew that require Core Skill Introduction Refresher training, re-designation will require successful completion of the evaluation event only, at the discretion of the Commanding Officer. Aircraft should be configured with all weapons and systems required for the scenario.

(4) The Division Leader Under Instruction (DLUI) will perform preflight planning, conduct a tactical mission and NATOPS brief, lead a division and conduct a debrief. Evaluation will be based on mission accomplishment, adherence to all applicable directives, orders, SOPs, ATC and course rules. Further evaluation will concentrate on flight safety, division control, formation integrity, and communication procedures. Aircraft should be configured with all weapons and systems required for the scenario.

(5) Prerequisites.

(a) Prospective Division Leads shall be Section Leaders who have flown a minimum of three flights as a Section Leader (PROF-629), and nominated by the Standardization Board.

(b) 600 total flight hours.

(c) 200 hours in type.

(d) 50 hours in model.

(6) The division lead proficiency tracking code (DL-639) shall be logged in conjunction with the appropriate 200-400 level event training code every time an aircrew flies an event as a designated division lead.

c. Crew Requirements. P/CP/CC/AO

d. Ground/Academic Training. The following matrix will be used to track academic and administrative training.

Self Paced Readings	Date Complete
<u>Prior to Stage Initiation</u>	
- ANTPP 3-22.3-CH53 Chapters 1, 2, 7, 9	
- ANTPP 3-22.5-CH53 TPG	
- ANTPP 3-22.5-RWTACSOP	
- MAWTS-1 Ace Battle Staff Planning Guide	
<u>Lectures</u>	
<u>Prior to Stage Completion</u>	
- Review all previously introduced lectures, placing special emphasis on the following:	
- Rules of Engagement	
- Rapid Ground Refueling	
- Objective Area Planning	
- Tactical Bulk Fuel Delivery System (TBFDS)	
<u>Chalk Talk</u>	
<u>Prior to Stage Completion</u>	
- Objective Area Planning	
- Rapid Response Planning Process	
<u>Written Exam</u>	
<u>Prior to Stage Completion</u>	
- MAWTS-1 Generated Written Exam	

e. Simulator and Flight Training. (4 Events, 6.0 Hours).

DL-630 1.5 A/S 3 Assault Support Aircraft (NS)

Goal. Demonstrate the ability to plan, brief, lead and debrief a flight focusing on division CALs, TERF, and one of the Assault METS (Resupply, Insert/Extract, Raid), emphasizing flight coordination, flight discipline, lost communications procedures, inadvertent IMC, rendezvous procedures, and in-flight emergency coordination in a day environment. Additional emphasis should be placed on mission timeline, fuel, and objective area planning.

Requirement. Plan, brief, lead, and debrief a tactical division flight utilizing principles of CRM and flight leadership to ensure mission success. Flight should offer sufficient opportunity to conduct lead changes, cruise principles, cruise and parade formations, and division landings. The DLUI shall demonstrate comprehensive knowledge and understanding of T&R Manual, NATOPS, RW TAC SOP, local SOP, local course rules, and ORM/CRM principles. The DLUI shall accomplish the following criteria:

Brief in accordance with RW TACSOP and ANTP 3-22.3-CH53
Comply with Wing, MAG, and Squadron SOPs.
Provides a predictable plan for wing.
Conduct multiple aircraft tactical approaches, landings and departures to a confined area; navigate a route at 200' AGL or less with at least five checkpoints and remain oriented within 200 meters of course line. Arrive at the final checkpoint within 30 seconds of the planned arrival time.

Instructor: Flight Lead or higher.

Performance Standards.

- Plan and brief a tactical mission IAW RW TACSOP and ANTP 3-22.3-CH53.
- Plan, brief and fly a route no fewer than five checkpoints at or below 200 feet AGL.
- Maintains proper formation and mutual support to and from working area.
- Demonstrate effective management and leadership of the division.
- TERF navigation utilizing 1:250,000 and 1:50,000 scale maps as appropriate.
- Remain oriented on route within 200 meters.
- Arrive at the final checkpoint within +/- 1 minute of the planned arrival time.
- Ensure effective CRM for navigation and obstacle clearance.
- Demonstrate effective inter and intra cockpit management for precision navigation and flight management.

Prerequisite.

- Administrative: Designated Section Leader. Proposed Division Leader.
- Academic: Complete the academic syllabus as directed in the ground/academic training matrix of this section.
- Simulator: None.
- Flight: Minimum three flights as a Section Leader (PROF-629); 600 total flight hours, 200 hours in type, 50 hours in model.

External Syllabus Support. WST/APT (as required)

DL-631

1.5

A/S 3 Assault Support Aircraft (NS)

Goal. Demonstrate the ability to plan, brief, lead and debrief a flight focusing on division CALs, TERF, and one of the Assault METS (Re-supply, Insert/Extract, Raid), emphasizing flight coordination, flight discipline, lost communications procedures, inadvertent IMC, rendezvous procedures, and in-flight emergency coordination in a day environment. Additional emphasis should be placed on mission timeline, fuel, and objective area planning.

Requirement. Plan, brief, lead, and debrief a tactical division flight utilizing principles of CRM and flight

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leadership to ensure mission success. Flight should offer sufficient opportunity to conduct lead changes, cruise principles, cruise and parade formations, and division landings. The DLUI shall demonstrate comprehensive knowledge and understanding of T&R Manual, NATOPS, RW TAC SOP, local SOP, local course rules, and ORM/CRM principles. The DLUI shall accomplish the following criteria:

Brief in accordance with RW TACSOP and ANTP 3-22.3-CH53
Comply with Wing, MAG, and Squadron SOPs.
Provides a predictable plan for wing.
Conduct multiple aircraft tactical approaches, landings and departures to a confined area; navigate a route at 200' AGL or less with at least five checkpoints and remain oriented within 200 meters of course line. Arrive at the final checkpoint within 30 seconds of the planned arrival time.

Instructor: Flight Lead or higher.

Performance Standards.

- Plan and brief a tactical mission IAW RW TACSOP and ANTP 3-22.3-CH53.
- Plan, brief and fly a route no fewer than five checkpoints at or below 200 feet AGL.
- Maintains proper formation and mutual support to and from working area.
- Demonstrate effective management and leadership of the division.
- TERF navigation utilizing 1:250,000 and 1:50,000 scale maps as appropriate.
- Remain oriented on route within 200 meters.
- Arrive at the final checkpoint within +/- 1 minute of the planned arrival time.
- Ensure effective CRM for navigation and obstacle clearance.
- Demonstrate effective inter and intra cockpit management for precision navigation and flight management.

Prerequisite.

- Administrative: Designated Section Leader. Proposed Division Leader.
- Academic: Complete the academic syllabus as directed in the ground/academic training matrix of this section.
- Simulator: None.
- Flight: FL-630.

External Syllabus Support. WST/APT (as required)

DL-632

1.5 A/S 3 Assault Support Aircraft NS

Goal. Demonstrate the ability to plan, brief, lead and debrief a night flight focusing on one of the Assault METS (Re-supply, Insert/Extract, Raid), emphasizing flight coordination, flight discipline, lost communications procedures, inadvertent IMC, rendezvous procedures, and in-flight emergency coordination in

a day environment. Additional emphasis should be placed on mission timeline, fuel, and objective area planning.

Requirement. Plan, brief, lead, and debrief a tactical division flight utilizing principles of CRM and flight leadership to ensure mission success. Flight should offer sufficient opportunity to conduct lead changes, cruise principles, cruise and parade formations, and division landings. The DLUI shall demonstrate comprehensive knowledge and understanding of T&R Manual, NATOPS, RW TAC SOP, local SOP, local course rules, and ORM/CRM principles. The DLUI shall accomplish the following criteria:

Brief in accordance with RW TACSOP and ANTP 3-22.3-CH53
Comply with Wing, MAG, and Squadron SOPs.
Provides a predictable plan for wing.
Conduct multiple aircraft tactical approaches, landings and departures to a confined area; navigate a route at 200' AGL or less with at least five checkpoints and remain oriented within 200 meters of course line. Arrive at the final checkpoint within 30 seconds of the planned arrival time.

Instructor: Flight Lead or higher.

Performance Standards.

- Plan and brief a tactical mission IAW RW TACSOP and ANTP 3-22.3-CH53.
- Plan, brief and fly a route no fewer than five checkpoints at or below 200 feet AGL.
- Maintains proper formation and mutual support to and from working area.
- Demonstrate effective management and leadership of the division.
- TERF navigation utilizing 1:250,000 and 1:50,000 scale maps as appropriate.
- Remain oriented on route within 200 meters.
- Arrive at the final checkpoint within +/- 1 minute of the planned arrival time.
- Ensure effective CRM for navigation and obstacle clearance.
- Demonstrate effective inter and intra cockpit management for precision navigation and flight management.

Prerequisite.

- Administrative: Designated Section Leader. Proposed Division Leader.
- Academic: Complete the academic syllabus as directed in the ground/academic training matrix of this section.
- Simulator: None.
- Flight: FL-631.

External Syllabus Support. WST

DL-637

A/S 3 Assault Support Aircraft (NS)

Goal. Tracking code for a co-pilot or HAC in a division.

Requirement. To maintain proficiency as a wingman.

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Prerequisite.

- Administrative: None.
- Academic: None.
- Simulator: None.
- Flight: None.

External Syllabus Support. WST/APT (as required)

DL-638

1.5 R E 3 Assault Support Aircraft (NS)

Goal. Conduct a Division leader check utilizing a METL based tactical scenario. Emphasis should be on situational awareness, flight maturity, CRM, and the tactical and operational knowledge required of a Division Lead.

Requirement. Plan, brief, lead, and debrief a tactical division flight utilizing principles of CRM and flight leadership to ensure mission success. Flight should offer sufficient opportunity to conduct lead changes, cruise principles, cruise and parade formations, and division landings. The PUI shall demonstrate comprehensive knowledge and understanding of T&R Manual, NATOPS, RW TAC SOP, local SOP, local course rules, and ORM/CRM principles. The PUI shall accomplish the following criteria:

Brief in accordance with RW TACSOP and ANTP 3-22.3-CH53
Complies with Wing, MAG, and squadron SOPs.
Provides a predictable plan for wing.
Provides a predictable platform for wing, especially during Division landings.
Accurately recounts aspects of the flight during debrief.

Instructor: FLSE

Performance Standards.

Plan and brief a tactical mission IAW RW TACSOP and ANTP 3-22.3-CH53.

Adhere to the briefed plan, only deviating based on sound judgment or necessity.

Complies with all applicable SOPs.

Maintains proper formation discipline.

Execute IAW RW TAC SOP and ANTP 3-22.3-CH53.

Manage the execution checklist.

Arrive at LZ +/- 1 minute of L-Hour.

Land within 0.1 NM or 8-digit grid of pre-briefed landing point

Maintain SA of the mission.

Maintain appropriate flight discipline.

Prerequisite.

- Administrative: Designated HAC and Section Leader.
Proposed Division Leader.

- Academic: Complete the academic syllabus as directed in the

ground/academic training matrix of this section.
- Simulator: Applicable FL-630 to FL-632 events.
- Flight: FL-633.

External Syllabus Support. WST

DL-639

A/S 3 Assault Support Aircraft (NS)

Goal. Track Division Leader proficiency.

Requirement. To maintain proficiency as a Division Leader. Pilot shall plan, brief, lead and debrief the designated event in accordance with the mission performance standards for that event.

Prerequisite.

- Administrative: Designated Division Leader.
- Academic: None.
- Simulator: None.
- Flight: DESG-638.

External Syllabus Support. WST/APT

5. Flight Leader (FL)

a. Purpose. To evaluate the prospective Flight Leader's ability to plan, brief and lead an event as a Flight Leader.

b. General

(1) The Flight Lead DESG event shall be flown in the aircraft and may be flown either day or night. Aircraft should be configured with all weapons and systems required for the scenario.

(2) The FL evaluation flight shall be evaluated by a FLSE.

(3) Completion of the Flight Leader event meets the requirements for designation as Flight Leader. At the discretion of the squadron Commanding Officer, a letter designating the pilot as Flight Leader shall be placed in the NATOPS jacket and APR. For aircrew that require Core Skill Introduction Refresher training, re-designation will require successful completion of the evaluation event, at the discretion of the Commanding Officer.

(4) The Flight Lead Under Evaluation (FLUI) will perform preflight planning, conduct a tactical mission brief, lead a flight of five (5) or more assault aircraft with escorts, and conduct a debrief. Evaluation will be based on mission accomplishment, adherence to all applicable directives, orders, SOPs, ATC and course rules. Further evaluation will concentrate on flight safety, flight control, formation integrity, and communication procedures. Additionally, evaluation will address tactical soundness, contingency planning, brief delivery, and use of supporting arms and flexibility during execution. Aircraft should be configured with all weapons and systems required for the scenario.

(5) Prospective Flight Leads shall be Division Leaders with a minimum of 750 total flight hours and nominated by the Standardization Board. Prospective Flight Leads shall have flown three Division Leader Flights (PROF-639).

(6) The flight lead proficiency tracking code (DL-649) shall be logged in conjunction with the appropriate 200-400 level event training code every time an aircrew flies an event as a designated flight lead.

c. Crew Requirements. P/CP/CC/AO

d. Ground/Academic Training. The following matrix will be used to track academic and administrative training.

Self Paced Readings	Date Complete
<u>Prior to Stage Initiation</u>	
- MAWTS-1/ TTECG How to Plan a Helicopterborne Assault	
<u>Lectures</u>	
<u>Prior to Stage Completion</u>	
- The AFL(UT) will review and have a working knowledge of all previously introduced lectures. Special emphasis should be placed on the following lectures:	
- Joint Force Structure and Combined Air Operations	
- TRAP TTPs	
- Execution Checklist	
- NEO Execution	
- CAS Aircraft Weapons and Ordnance	
<u>Chalk Talks</u>	
<u>Prior to Stage Completion</u>	
Conduct a Mission Walk-Through	
<u>Written Exam</u>	
<u>Prior to Stage Completion</u>	
- MAWTS-1 Generated Written Exam	

e. Flight Training. (1 Flight, 3.0 Hours).

FL-647

A/S 5+ Assault Support Aircraft (NS)

Goal. Tracking code for a co-pilot or HAC in a flight.

Requirement. To maintain proficiency as a wingman.

Prerequisite.

- Administrative: None.
- Academic: None.
- Simulator: None.
- Flight: 750 total hours; three flights as DL.

External Syllabus Support. WST/APT (as required)

FL-648

1.5

R E 5+ Aircraft (NS)

Goal. Conduct Flight Leader check utilizing a METL based

tactical scenario. Scenario used should not be the same MET scenario used during Division Leader Check. Emphasis should be on planning, coordination and control of all supporting arms, escorts and agencies in meeting with mission requirements.

Requirement. Plan, brief, lead and debrief a tactical flight utilizing principles of CRM and flight leadership to ensure mission success. Flight should offer sufficient opportunity to conduct lead changes, cruise principles, cruise and parade formations, and Flight landings. The PUI shall demonstrate comprehensive knowledge and understanding of T&R Manual, NATOPS, RW TAC SOP, local SOP, local course rules, and ORM/CRM principles. The PUI shall accomplish the following criteria:

Brief in accordance with RW TACSOP and ANTP 3-22.3-CH53
Complies with Wing, MAG, and squadron SOPs.

Instructor: FLSE

Performance Standards.

Plan and brief a tactical mission IAW RW TACSOP and ANTP 3-22.3-CH53.

Adhere to the briefed plan, only deviating based on sound judgment or necessity.

Complies with all applicable SOPs.

Maintains proper formation discipline.

- Plans and briefs a tactical mission IAW the Rotary Wing TACSOP and ANTP 3-22.3.
- Keeps flight oriented within 200 meters.
- Arrive at LZ +/- 1 minute of briefed plan.
- Land within 0.1 NM or 8-digit grid of pre-briefed landing point.
- Demonstrate proper employment of ASE.
- Demonstrate proper use of tactical formations.
- Demonstrate situational awareness of other aircraft through all phases of flight.
- Demonstrate positive control of flight.
- As applicable, demonstrate proper understanding of NS considerations with multiple aircraft, aerial gunnery, and laser employment.
- Demonstrate proper understanding of C4I utilization to facilitate execution and information flow.
- Demonstrate appropriate threat consideration from planning through execution.
- Demonstrate understanding of aircraft maneuver with regard to threat response in concert with proper aerial gunnery employment.
- Demonstrate proper understanding of escort considerations.
- Demonstrate proper understanding and utilization of secure and active communications.
- Demonstrate understanding of FSCM utilization.
- Demonstrate understanding of contingency considerations.

Prerequisite.

- Administrative: Designated Division Leader. Proposed Flight Leader.

- Academic: Complete the academic syllabus as directed in the ground/academic training matrix of this section.
- Simulator: None.
- Flight: DESG-638.

External Syllabus Support. CAL zones, Authorized TERF area, RW and/or FW escort.

FL-649

A/S 5+ Aircraft (NS)

Goal. Track Flight Leader proficiency.

Requirement. To maintain proficiency as a Flight Leader. Pilot shall plan, brief, lead and debrief the designated event in accordance with the mission performance standards for that event.

Prerequisite.

- Administrative: Designated Flight Leader.
- Academic: None.
- Simulator: None.
- Flight: DESG-648.

External Syllabus Support. WST/APT

6. Air Mission Commander (AMC)

a. Purpose. To prepare and evaluate the prospective Air Mission Commander's ability to plan, brief and lead an event as an Air Mission Commander.

b. General

(1) Air Mission Commander DESG event may be conducted from an aircraft, a C&C platform, or an appropriate ground based COC.

(2) The AMC evaluation flight shall be evaluated by a FLSE.

(3) Completion of DESG-650 meets the requirements for designation as Air Mission Commander. At the discretion of the squadron Commanding Officer, a letter designating the pilot as an Air Mission Commander shall be placed in the NATOPS jacket and APR. For aircrew that require Core Skill Introduction Refresher training, re-designation will require successful completion of the evaluation event, at the discretion of the Commanding Officer. Aircraft should be configured with all weapons and systems required for the scenario.

(4) The AMC designation is a function of flight leadership, maturity and experience. The AMC should lead the mission from a C&C aircraft, if available. The Air Mission Commander Under Evaluation (AMCUI) will perform preflight planning, conduct a tactical mission brief, command a flight of two divisions or more, and conduct a debrief. The AMC shall be evaluated on his ability to integrate the 6 functions of Marine Aviation. Evaluation will be based on mission accomplishment, adherence to all applicable directives, orders, and SOPs. Further evaluation will concentrate on communication planning, coordination of multiple agencies and flight safety. Additionally, evaluation will address tactical soundness of contingency planning, brief

delivery, and use of supporting arms and flexibility during execution. Aircraft should be configured with all weapons and systems required for the scenario.

(5) Prospective Air Mission Commanders shall be an AFL and shall be nominated by the Standardization Board.

(6) The Air Mission Commander proficiency tracking code (DL-659) shall be logged in conjunction with the appropriate 200-400 level event training code every time an aircrew flies an event as a designated Air Mission Commander.

c. Crew Requirements. P/CP/CC/AO

d. Ground/Academic Training. The following matrix will be used to track academic and administrative training.

Self Paced Readings	Date Complete
<u>Prior to Stage Initiation</u>	
- ANTTP 3-22.3-CH53 Chapters 1, 2, 6	
- MAWTS-1/ TTECG How to Plan a Helicopterborne Assault	
<u>Lectures</u>	
<u>Prior to Stage Completion</u>	
- The AMC designation is a function of flight leadership, maturity and experience. The AMC(UT) will review and shall have a working knowledge of all previously introduced lectures. Special emphasis should be placed on the following:	
- Tactical Air Command Center (TACC)	
- 6 Functions Integration	
- MAGTF Targeting and Fire Support Planning	
- Rapid Response Planning	
- Helicopter Assault Key Players	
- Air Mission Commander (AMC)	
<u>Chalk Talks</u>	
<u>Prior to Stage Completion</u>	
- C&C Comm Set-Up	
<u>Written Exam</u>	
<u>Prior to Stage Completion</u>	
- MAWTS-1 Generated Written Exam	

e. Flight Training. (1 Flight, 0.0 Hours).

AMC-657

A/S 2+ Div Assault Support Aircraft (NS)

Goal. Tracking code for a co-pilot or HAC in a mission.

Requirement. To maintain proficiency as a wingman.

Prerequisite.

- Administrative: None.
- Academic: None.
- Simulator: None.
- Flight: AFL.

External Syllabus Support. WST/APT (as required)

AMC-658

1.5 R E 2+ Div (NS)

Goal. Conduct Air Mission Commander (AMC) check utilizing METL tactical scenario. Emphasis should be placed on coordinating mission planning, asset integration, information flow, ROE, and overall mission accomplishment.

Requirement. Plan, brief, execute, and debrief an Assault Support mission including AFL/EFL/MC assets. The AMC designation is a function of flight leadership, maturity and experience. The PUI shall be evaluated on his ability to integrate the 6 functions of Marine Aviation. The PUI shall demonstrate comprehensive knowledge and understanding of T&R Manual, NATOPS, RW TAC SOP, local SOP, local course rules, and ORM/CRM principles. The PUI shall lead the mission from a C&C aircraft, if available.

Instructor: FLSE

Performance Standards. Demonstrate the flight leadership necessary for effective mission accomplishment through the integration of the 6 functions of Marine Aviation. Supervise mission planning IOT ensure a timely and tactically sound plan. Conduct AMC brief. Conduct mass debrief. Accurately assess mission success or failure.

Prerequisite.

- Administrative: Designated AFL. Proposed AMC
- Academic: Complete the academic syllabus as directed in the ground/academic training matrix of this section.
- Simulator: None.
- Flight: DESG-648.

External Syllabus Support. GCE and MACCS agencies as required, RW and/or FW escort.

AMC-659

A/S 2+ Div (NS)

Goal. Track AMC proficiency.

Requirement. To maintain proficiency as an AMC. Pilot shall plan, brief, lead and debrief the designated event in accordance with the mission performance standards for that event.

Prerequisite.

- Administrative: Designated AMC.
- Academic: None.
- Simulator: None.
- Flight: DESG-658.

NAVMC 3500.47
18 Jun 08

160. ORDNANCE REQUIREMENTS. Annual ordnance requirements are developed on a "per crew" basis per OPNAVNOTE 8010.

ORDNANCE	100 SERIES	200 SERIES	300 SERIES	400 SERIES	REFRESHER	IUT	ANNUAL*
Chaff	0	0	90	90	90	0	110
Flares	0	0	90	210	210	0	230
.50 CAL	See Crew Chief syllabus for numbers.						

*Annual Ordnance requirements maintain aircrew proficiency.

170. MOS SYLLABUS MATRIX. These tables display specific 100 - 600 level event information such as; flight/simulator hours, refly interval, prerequisites, CRP, chaining, etc. in a table format.

STAGE	TRNG CODE	FLT HOURS	SIM HOURS	REFLY INT	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVAL	CRP	CHAINING	EVENT DESC	OLD CODE	
FAM															
FAM	100		1.0	*	S				R, SCE, SCD		0.2		SIM FAM	100	
FAM	101		1.0	*	S				SCD		0.2		SIM FAM	101	
FAM	102		1.0	*	S				SCD		0.2		SIM FAM	102	
FAM	103		1.0	*	S				SCD		0.2		SIM FAM	103	
FAM	104		1.0	*	S				SCD		0.2		SIM FAM	104	
FAM	105		1.5	*	S				R, SCE		0.2		SIM FAM	105	
FAM	106		1.0	*	S				R, SCE		0.2		SIM FAM	106	
FAM	107		1.0	*	S		NS	NITE LAB	SCD		0.2		SIM NS FAM	107	
FAM	110	1.5		*	A	1			SCE		1.0		FAM	110	
FAM	111	1.5		*	A	1					1.0		FAM	111	
FAM	112	1.5		*	A	1			MR		1.0		FAM	112	
FAM	113	1.5		*	A	1					1.0		FAM	113	
FAM	114	1.5		*	A	1			MR, R, SCE		1.0		FAM	114	
FAM	115	1.5		*	A	1					1.0		FAM	115	
FAM	116	1.5		*	A	1			R, SCE		1.0		FAM	116	
FAM	117	1.5		*	A	1					1.0		FAM	117	
FAM	118	1.5		*	A	1			R, SCE		1.0		FAM	118	
FAM	119	1.5		*	A	1					1.0		FAM	119	
FAM	120	1.5		*	A	1	N*		MR, R, SCE		1.0		N FAM	120	
FAM	121	1.5		*	A	1	NS	107, 120			1.0		NS FAM	121	
FAM	122	1.5		*	A	1	NS	121	R, SCE		1.0		NS FAM	122	
FAM	#123	2.0		*	A	1			SCD		0.0		FAM		
FAM	#124	2.0		*	A	1		#123	SCD		0.0		FAM		
											14.6				
INST															
INST	130		1.0	*	S				SCD		0.2		SIM INST	130	
INST	131		1.0	*	S				R, SCE		0.2		SIM INST	131	
INST	132		1.0	*	S				R, SCE		0.2		SIM INST	132	
INST	133		1.0	*	S				SCD		0.2		SIM INST	133	
INST	134		1.0	*	S						0.2		SIM INST	134	
INST	135	1.5		*	A/S	1	(N)				0.5		BASIC INST	135	
INST	136	1.5		*	A/S	1	(N)		MR, R, SCE		0.5		NON PREC INST	136	
INST	137	1.5		*	A/S	1	(N)		R, SCE		1.0		PREC INST	137	
INST	138	1.5		*	A/S	1	(N)				1.0		INST PROG CHK	138	
INST	#139	2.0		*	A	1	(N)	#123, 130, 133	SCD		0.0		BASIC INST		
											4.0				
NAV															
NAV	140		1.0	*	S						0.2		SIM NAV	140	
NAV	141	2.0		*	A	1					1.0		DAY NAV	141	
NAV	142	2.0		*	A	1	NS	122			1.0		NS NAV	142	
											2.2				
FORM															
FORM	150		1.0	*	S				R, SCE		0.2		SIM FORM	150	
FORM	151	1.5		*	A	2			MR, R, SCE		1.0		2 A/C DAY FORM	151	
FORM	152	1.5		*	A	2	NS	122, 151, 162, 163			1.0		2 A/C HLL FORM	152	
											2.2				
# - CH-53E to CH-53D SC POI only (not applicable to Basic POI)															

CH-53 PILOT														
100 SERIES CORE SKILL INTRODUCTION														
STAGE	TRNG CODE	FLT HOURS	SIM HOURS	REFLY INT	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVAL	CRP	CHAINING	EVENT DESC	OLD CODE
CAL														
CAL	160		1.0	*	S		NS	107	SCD		0.2		SIM CAL	160
CAL	161		1.5	*	A	1		#124	MR,R,SCE,SCD		1.0		1 A/C DAY CAL	161
CAL	162		1.5	*	A	2		151,161	SCD		1.0		2 A/C DAY CAL	162
CAL	163		2.0	*	A	1	NS	122,160,161			1.0		1 A/C HLL CAL	163
										3.2				
EXT														
EXT	170	1.0		*	A	1		#124,161	SCD,SCE		1.0		SINGLE PT EXT	170
EXT	171	1.0		*	A	1	NS	163,170	SCE		1.0		HLL SINGLE PT EXT	171
EXT	172	1.5		*	A	1		161	MR,R,SCE		1.0		DUAL PT EXT	172
EXT	173	1.5		*	A	1	NS	163,172	R,SCE		1.0		HLL DUAL PT EXT	173
										4.0				
TERF														
TERF	180	1.5		*	A	1		#124	R,SCE,SCD		1.0		1 A/C DAY TERF	180
TERF	181	1.5		*	A	1					1.0		1 A/C DAY TERF	181
										2.0				
REV														
REV	190	1.5		*	A	1			R,SCE,SCD		1.3		CORE SKILL INT REV	190
										1.3				
CSIX														
CSIX	191	2.0		*	A	1			MR,R,SCE,SCD E		1.5		CORE SKILL INT CHK	191
										1.5				
CRP TOTAL FOR PHASE										35.0				
# - CH-53E to CH-53D SC POI only (not applicable to Basic POI)														

CH-53 PILOT															
200 SERIES CORE SKILL BASIC															
STAGE	TRNG CODE	FLT HOURS	SIM HOURS	REFLY INT	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVAL	CRP 7566	CRP 7564	CHAINING	EVENT DESC	OLD CODE
FAM/INST															
FAM/INST	200		1.5	*	S		(N)		R, SC		0.2	0.2		SIM FLIR	200
FAM/INST	201	1.5			365 A	1	(N)	200	R		0.2	0.2		A/C FAM	201
FAM/INST	202		1.5	*	S/A		NS				0.2	0.2		NS FAM	200
											0.6	0.6			
FORM															
FORM	210	1.0			365 A	2			R, SC		0.5	0.5		2 A/C DAY FORM	210
FORM	211	1.0			180 A	2	NS	210, 222	R		0.8	0.8	210	2 A/C HLL FORM	211
											1.3	1.3			
CAL															
CAL	220	1.5			365 A	1		201			0.5	0.5		1 A/C DAY CAL	220
CAL	221	1.5			365 A	2		210, 220	R, SC		0.5	0.5	210, 220	2 A/C DAY CAL	221
CAL	222	1.5			180 A	1	NS	202, 220			1.0	1.0	220	1 A/C HLL CAL	222
CAL	223	1.5			180 A	2	NS	211, 221, 222	R, SC		1.0	1.0	210, 211, 220, 221, 222	2 A/C HLL CAL	223
CAL	224	1.5			* A	1	NS	222	R, SC		0.0	0.0		HLL HUD	224
											3.0	3.0			
TERF															
TERF	230	1.5			365 A	1		201			0.5	0.5		1 A/C DAY TERF	230
TERF	231	1.5			365 A	2		210, 230	R, SC		1.0	1.0	210, 230	2 A/C DAY TERF	231
TERF	232	1.5			180 A	1	NS	202, 230	R, SC		1.0	1.0	230	1 A/C HLL TERF	232
TERF	233	1.5			180 A	2	NS	211, 231, 232	R, SC		1.0	1.0	210, 211, 230, 231, 232	2 A/C HLL TERF	233
											3.5	3.5			
EXT															
EXT	240	1.5			365 A	1		220			1.0	N/A	220	SINGLE PT EXT	240
EXT	241	1.5			365 A	1		220	R, SC		1.0	2.0	220, 240	DUAL PT EXT	241
EXT	242	1.5			365 A	1		220, 230, 240, 241	R, SC		1.0	1.0	220, 230, 240	DAY TERF EXT	341
EXT	243	1.5			180 A	1	NS	222, 240			1.0	N/A	220, 222, 240	HLL SINGLE PT EXT	242
EXT	244	1.5			180 A	1	NS	222, 241	R, SC		1.0	2.0	220, 222, 240, 241, 243	HLL DUAL PT EXT	243
											5.0	5.0			

CH-53 PILOT															
200 SERIES CORE SKILL BASIC															
STAGE	TRNG CODE	FLT HOURS	SIM HOURS	REFLY INT	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVAL	CRP 7566	CRP 7564	CHAINING	EVENT DESC	OLD CODE
GTR															
GTR	250		1.5	*	S		(NS)		SC		0.0	0.0		SIM GTR	250
											0.0	0.0			
AR															
AR	260		1.0	*	S		(NS)		SC		0.0	N/A		SIM AR	260
											0.0	0.0			
FCLP															
FCLP	270		1.0	*	S		(N)		SC		0.0	0.0		SIM CQ	270
FCLP	271	1.0			365 A	1		220, 270	SC		0.2	0.2		DAY FCLP	471
FCLP	272	1.0		*	A	1	N*	271	SC		0.2	0.2	271	UNAIDED FCLP	472
FCLP	273	1.0			365 A	1	NS	271, 222 HLL, 320 LLL	R, SC		0.2	0.2	271	NS FCLP	473
											0.6	0.6			
AG															
AG	280	1.0		*	A	1			R, SC		0.0	0.0		1 A/C AG	280
											0.0	0.0			
TAC															
TAC	290	2.0			365 A/S	2		221, 231, 250			0.5	0.5	210, 220, 221	2 A/C DAY TAC	290
TAC	291	2.0			365 A	2	NS	223, 233, 290	R, SC		0.5	0.5	210, 211, 220, 221, 222, 223, 290	2 A/C HLL TAC	N/A
											2.0	2.0			
CRP TOTAL FOR PHASE											15.0	15.0			

CH-53 PILOT															
300 SERIES CORE SKILL ADVANCED															
STAGE	TRNG CODE	FLT HOURS	SIM HOURS	REFLY INT	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVAL	CRP 7566	CRP 7564	CHAINING	EVENT DESC	OLD CODE
CAL															
CAL	320	1.5		180	A	1	NS	243,244, NSQ HLL			1.5	2.0	220,222	1 A/C LLL CAL	320
CAL	321	1.5		180	A	2	NS	320	R, SC		1.5	2.0	210,211,220,221, 222,223,320	2 A/C LLL CAL	321
CAL	322	1.5		*	A	1	NS	320	R, SC		0.0	0.0		LLL HUD	322
											3.0	4.0			
TERF															
TERF	330	1.5		180	A	1	NS	320			1.5	2.0	230,232,320	1 A/C LLL TERF	330
TERF	331	1.5		180	A	2	NS	330	R, SC		1.5	2.0	210,211,230,231, 232,233,330	2 A/C LLL TERF	331
											3.0	4.0			
EXT															
EXT	340		1.5	*	S		(NS)		SC		1.0	1.5		SIM EXT	N/A
EXT	341	1.5		365	A	1	(NS)	SEE EVENT	R, SC		1.0	1.5	220,240	HVY LIFT EXT	340
EXT	342	1.5		180	A	1	NS	SEE EVENT	R, SC		1.0	1.5	220,222,240,241, 243,244,320	LLL EXT	342
EXT	343	1.5		180	A	1	NS	SEE EVENT	R, SC		1.5	1.5	220,222,230,232, 240,242,243	NS TERF EXT	343
											4.5	6.0			
GTR															
GTR	350	1.0		365	A	2	(NS)	SEE EVENT	R, SC		1.0	1.0	210,230,231,250	GTR NON- RADAR	350
											1.0	1.0			
AR															
AR	360	1.0		*	A	1		260	SC		1.0	N/A		DAY AR	360
AR	361	1.0		180	A	1		360	R, SC		1.0	N/A		DAY AR	361
AR	362	1.0		180	A	1	NS	361	R, SC		1.5	N/A	361	NS AR	362
											3.5	0.0			
AG															
AG	380	1.0		*	A	1	NS	280	R, SC		1.0	1.0		NS AG	380
											1.0	1.0			
TAC															
TAC	390	2.0		365	A	2+		SEE EVENT	R, SC			2.0	210,220,221,290	MED THRT TACTICS	390
TAC	391	2.0		365	A	2+	NS	SEE EVENT	R, SC		2.0	2.0	210,211,220,221, 222,223,290,291, 320,321,390	LLL TACTICS	391
											4.0	4.0			
CRP TOTAL FOR PHASE											20.0	20.0			

CH-53 PILOT															
400 SERIES CORE PLUS															
STAGE	TRNG CODE	FLT HOURS	SIM HOURS	REFLY INT	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVAL	CRP 7566	CRP 7564	CHAINING	EVENT DESC	OLD CODE
HIE															
HIE	400	1.0		*	A	1	(NS)	SEE EVENT	R, SC		0.1	0.1		FASTROPE	400
HIE	401	1.0		365	A	1		231	R, SC		0.1	0.1		HELOCAST	401
HIE	402	1.0		*	A	1	(NS)	SEE EVENT	R, SC		0.1	0.1		PARAOPS	402
											0.3	0.3			
GTR															
GTR	450	1.0		365	A	2	(NS)	231, 250	R, SC		0.5	0.5	210, 230, 231	RADAR GTR	350
											0.5	0.5			
DM															
DM	451	1.0		365	A	2		231	R, SC		0.5	0.5	210, 230, 231	RW DM	450
DM	452	1.0		365	A	2		231	R, SC		0.5	0.5	210, 230, 231	FW DM	451
											1.0	1.0			
NBC															
NBC	460	1.0		*	A	1	(NS)	SEE EVENT	R, SC		0.1	0.1		NBC	460
											0.1	0.1			
CQ															
CQ	470	1.5		365	A	1		271	R, SC		0.2	0.2	271	DAY CQ	474
CQ	471	1.5		*	A	1	N*	272, 470	SC		0.2	0.2	272, 470	UNAIDED CQ	475
CQ	472	1.5		365	A	1	NS	SEE EVENT	R, SC		0.2	0.2	271, 273, 470	NS CQ	476
											0.6	0.6			
TAC															
TAC	490	2.0		365	A	3+		390	R, SC		0.5	0.5	210, 220, 221, 290, 390	DIV TACTICS	490
TAC	491	2.0		365	A	3+	NS	SEE EVENT	R, SC		1.0	1.0	210, 211, 220, 221, 222, 223, 290, 291, 390, 490	NS DIV TACTICS	491
TAC	492	2.0		365	A	2	NS	SEE EVENT	R, SC		0.5	0.5	210, 211, 220, 221, 222, 223, 290, 291, 390	NS URBAN TACTICS	492
TAC	493	4.0		365	A	2	(NS)	SEE EVENT	R, SC		0.5	0.5	210, 220, 221, 290, 390	LONG RANGE TACTICS	493
											2.5	2.5			
CRP TOTAL FOR PHASE											5.0	5.0			

CH-53 PILOT															
500 SERIES INSTRUCTOR															
STAGE	TRNG CODE	FLT HOURS	SIM HOURS	REFLY INT	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVAL	CRP 7566	CRP 7564	CHAINING	EVENT DESC	OLD CODE
CSII (MAG-24)															
IUT	550	2.0		*	A	1					0.0	0.0		D FAM/INST	553
IUT	551	2.0		*	A	1	550				0.0	0.0		D CAL/EXT	557
STANX	552	1.5		*	A	1	551			E	0.0	0.0		D STANX	558
											0.0	0.0			
FAM	553	1.5		*	A	1					0.0	0.0		DAY FAM	553
FAM	554	1.5		*	A	1	N*				0.0	0.0		NIGHT FAM	
INST	555	2.0		*	A/S	1	(N)				0.0	0.0		INSTR	554
CAL	556	1.5		*	A	1					0.0	0.0		1 A/C CAL	555
FORM	557	1.5		*	A	2					0.0	0.0		DAY FORM	556
EXT	558	1.5		*	A	1					0.0	0.0		EXT	557
STANX	559	1.5		*	A	1	(N)			E	0.0	0.0		STANX	558
											0.0	0.0			
ARI															
AR	520	1.0		*	A	1	362,493				0.0	0.0		DAY ARI	520
AR	521	1.0		*	A	1	NS 520			E	0.0	0.0		NS ARI STANX	521
											0.0	0.0			
NSFI															
NS	560	1.0		*	A	1	NS Course Catalog				0.0	0.0		HLL NS FAM	560
NS	561	1.0		*	A	2	NS Course Catalog				0.0	0.0		HLL NS FORM	561
NS	562	1.0		*	A	1	NS Course Catalog				0.0	0.0		HLL EXT	562
NS	563	1.0		*	A	1	NS Course Catalog	R	E		0.0	0.0		NS STANX	563
											0.0	0.0			
TERFI															
TERF	570	1.0		*	A	1	230,231				0.0	0.0		1 A/C TERF	570
TERF	571	1.0		*	A	1	231,242				0.0	0.0		TERF EXT	571
TERF	572	1.0		*	A	2	570,571,SECLDR			E	0.0	0.0		TERFI STANX	572
											0.0	0.0			
DMI															
DMI	580	2.0		*	A	2	Course Catalog				0.0	0.0		2 v GRND THRT	580
DMI	581	1.0		*	A	2	Course Catalog				0.0	0.0		2 v FW/RW	581
DMI	582	1.0		*	A	2	Course Catalog	R	E		0.0	0.0		2 v FW/RW	582
											0.0	0.0			
NSI															
NSI	590		1.0	*	S/A		NS Course Catalog				0.0	0.0		ANVIS HUD	590
NSI	591	1.0		*	A	1	NS Course Catalog				0.0	0.0		NS LOW WORK	591
NSI	592	1.0		*	A	1	NS Course Catalog				0.0	0.0		NS CALS/EXT	592
NSI	593	1.5		*	A	2	NS Course Catalog				0.0	0.0		2 A/C NS TERF	593
NSI	594	1.5		*	A	2	NS Course Catalog				0.0	0.0		2 A/C NS THRT	594
NSI	595	2.5		*	A	2	NS Course Catalog	R	E		0.0	0.0		2 A/C NS EVAL	595
											0.0	0.0			
CRP TOTAL FOR PHASE											0.0	0.0			

CH-53 PILOT															
600 SERIES REQUIREMENTS, QUALIFICATIONS, DESIGNATIONS															
STAGE	TRNG CODE	FLT HOURS	SIM HOURS	REFLY INT	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVAL	CRP 7566	CRP 7564	CHAINING	EVENT DESC	OLD CODE
EVAL															
EVAL	600	1.5		365	A/S	1	(N)		R, SC	E	0.0	0.0		ANNUAL NATOPS	600
EVAL	601	1.5		365	A/S	1	(N)			E	0.0	0.0		ANNUAL INST CHECK	601
EVAL	602	2.0		*	A	1			R	E	0.0	0.0		FCP CHECK	602
											0.0	0.0			
FLIGHT LEADER															
HAC	610	1.5		*	A/S	1		CORE SKILLS ADV			0.0	0.0		DAY HAC REVIEW	603
HAC	611	1.5		*	A	1	N	CORE SKILLS ADV			0.0	0.0		NIGHT HAC REVIEW	604
HAC	612	2.0		*	A	1	(N)	610, 611	R	E	0.0	0.0		HAC CHECK	605
HAC	619	0.0		*	A/S	2	(NS)	612			0.0	0.0		WINGMAN HAC	N/A
SL	620	1.5		*	A/S	2	(NS)	612, 619x3, 50 HAC hours			0.0	0.0		SLUI	620
SL	621	1.5		*	A/S	2	NS	620			0.0	0.0		NS SLUI	621
SL	622	1.5		*	A/S	2	(NS)	621			0.0	0.0		SLUI	N/A
SL	627	0.0		*	A/S	2	(NS)				0.0	0.0		SECTION COPILOT	N/A
SL	628	1.5		*	A	2	(NS)	622	R	E	0.0	0.0		SL CHECK	622
SL	629	0.0		XXX	A/S	2	(NS)	628			0.0	0.0		SL PROFICIENCY	N/A
								628, 629x3, 600 total hours, 200 hours in type, 50 hours in model							
DL	630	1.5		*	A/S	3	(NS)				0.0	0.0		DLUI	630
DL	631	1.5		*	A/S	3	(NS)	630			0.0	0.0		DLUI	N/A
DL	632	1.5		*	A/S	3	NS	631			0.0	0.0		NS DLUI	N/A
DL	637	1.5		*	A/S	3	(NS)				0.0	0.0		DIV WINGMAN HAC OR COPILOT	N/A
DL	638	1.5		*	A	3	(NS)	632	R	E	0.0	0.0		DL CHECK	631
DL	639	0.0		XXX	A/S	3	(NS)				0.0	0.0	637, 629	DL PROFICIENCY	N/A
FL	647	0.0		*	A/S	5+	(NS)	638x3, 750 total flight hours			0.0	0.0	637	FL WINGMAN HAC OR COPILOT	N/A
FL	648	1.5		*	A	5+	(NS)	638, 637x2, 639x2	R	E	0.0	0.0		FL CHECK	640
FL	649	0.0		XXX	A/S	5+	(NS)				0.0	0.0	647, 639, 629	FL PROFICIENCY	N/A
AMC	657	1.5		*	A/S	2+	(NS)	Designated FL			0.0	0.0	647, 637	AMC HAC OR COPILOT	N/A
AMC	658	1.5		*	N/A	2+	(NS)	648	R	E	0.0	0.0		AMC CHECK	650
AMC	659	0.0		XXX	N/A	2+	(NS)	658			0.0	0.0		AMC PROFICIENCY	N/A
											0.0	0.0			
CRP TOTAL FOR PHASE											0.0	0.0			

CHAPTER 2

CH-53 CREW CHIEF AND AERIAL OBSERVER

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*** * N O T E * ***

Aircrews shall include Crew Resource Management (CRM) techniques as part of their brief.

CHAPTER 2

CH-53 CREW CHIEF AND AERIAL OBSERVER

200. MARINE HEAVY HELICOPTER SQUADRON (CH-53E) UNIT CORE COMPETENCY. Marine Aviation plays a crucial role in the MAGTF's ability to conduct Maneuver Warfare. The ultimate goal of Marine Aviation is to attain the highest possible combat readiness to support Expeditionary Maneuver Warfare while at the same time preserving and conserving our Marines and equipment. Embedded within our combat readiness is the ability to rapidly, effectively, and efficiently deploy on short notice and the ability to quickly and effectively plan for crises and/or contingency operations thereby ensuring Marine Aviation remains ready for combat when and where the need arises. The CH-53 Training & Readiness (T&R) Manual represents the collaborative effort of CH-53 Subject Matter Experts who designed training standards to maximize the full combat capabilities of the CH-53 and its crew. These standards, intrinsic in the core competency section, describe and define unit capabilities and requirements necessary to maintain like-squadron proficiency in core skills and combat leadership. Training events are based on specific requirements and performance standards to ensure aircrew maintain a common base of training and depth of combat capabilities. Together, the T&R comprises a building block approach to ensure that trained aircrews remain ready, relevant, and fully capable of supporting the MAGTF Commander.

1. HMH Mission. Support the MAGTF Commander by providing assault support transport of heavy weapons, combat troops, equipment and supplies, day or night under all weather conditions during expeditionary, joint or combined operations.

2. Mission Essential Task List (METL)

a. (UJTL TA 1.1.2) Conduct Shipboard Deck Helicopter Landing Qualifications.

b. (UJTL TA 1.1.4) Conduct Sea and Air Deployment Operations.

(1) Maintain the capability to deploy and operate from advanced bases, expeditionary airfields, Forward Operating Bases (FOBs), and naval shipping.

(2) Maintain the capability to conduct extended range operations employing aerial refueling.

(3) Perform organizational maintenance on assigned aircraft.

c. (UJTL TA 1.2.1) Conduct Air Assault Operations and Air Assault.

(1) Provide assault support transport of heavy equipment, supplies, and combat troops using internal and/or external means.

(2) Provide support for casualty evacuation operations.

(3) Maintain self-defense capability from ground-to-air and air-to-air threats.

- d. (UJTL TA 1.2.3) Conduct Amphibious Assault and Raid Operations.
 - (1) Conduct assault support for maritime special operations.
- e. (UJTL TA 4.2) Distribute Supplies and Provide Transport Service
 - (1) Conduct Aerial Re-supply.
 - (2) Provide support for mobile Forward Arming and Refueling Points (FARPS).
- f. (UJTL TA 4.4) Conduct Joint Logistics Over-The-Shore Operations (JLOTS).
- g. (UJTL TA 6.2) Conduct Joint Personnel Recovery.
 - (1) Conduct Tactical Recovery of Aircraft and Personnel (TRAP) operations.
 - (2) Augment local Search and Rescue (SAR) assets.
- h. (UJTL TA 6.4) Conduct Noncombatant Evacuation.
 - (1) Provide support for evacuation operations.

3. Table of Organization. Refer to Table of Organization 8960 managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for CH-53E units. As of this publication date, CH-53E units are authorized:

Squadron
16 Aircraft
38 Pilots/26 Crew Chiefs/26 Aerial Observers

Reserve Squadron
8 Aircraft
18 Pilots/13 Crew Chiefs/13 Aerial Observers

Detachment
4 Aircraft
8 Pilots/6 Crew Chiefs/6 Aerial Observers

4. Core Capability. A core capable CH-53 squadron is able to sustain the number of sorties listed below on a daily basis during contingency/combat operations. The sortie rates are based on 1.8 hour average sortie duration and assumes ≥ 70 percent Full Mission Capable (FMC) aircraft and assigned crews ≥ 90 percent T/O aircrew. If unit FMC aircraft < 70 percent or assigned crews < 90 percent T/O, core capability will be degraded by a like percentage. A core capable squadron/detachment is able to accomplish all tasks designated in the unit Mission Essential Task List (METL) from a main base, expeditionary base, or amphibious platform.

a. Core Capable Squadron. A core capable CH-53E squadron is able to sustain 27 sorties.

b. Core Capable Reserve Squadron. A core capable Reserve squadron is able to sustain 14 sorties.

c. Core Capable Squadron (-). A core capable squadron (-) is able to sustain 21 sorties.

d. Core Capable Detachment. A core capable detachment is able to sustain 7 sorties.

5. METL/Core Skill Matrix. CH-53E core skills directly support the METL as follows:

METL	CH53E EAC												
	CH-53E CORE SKILLS												
	FAM/INST	INT	FORM	CAL	TERF	EXT	AR	FCLP	AG	GTR	TAC	NS HLL	NS LLL
a. Conduct Shipboard Deck Landing Qualifications	X		X	X				X				X	X
b. Conduct Sea and Air Deployment Operations	X	X	X	X	X	X	X	X	X	X	X	X	X
c. Conduct Air Assault Operations and Air Assault	X	X	X	X	X	X	X	X	X	X	X	X	X
d. Conduct Amphibious Assault and Raid Operations	X	X	X	X	X	X	X	X	X	X	X	X	X
e. Distribute Supplies and Provide Transport Service	X	X	X	X	X	X	X	X	X	X	X	X	X
f. Conduct Joint Logistics Over-The-Shore Operations (JLOTS)	X	X	X	X	X	X	X	X	X	X	X	X	X
g. Conduct Joint Personnel Recovery	X	X	X	X	X		X	X	X	X	X	X	X
h. Conduct Noncombatant Evacuation	X	X	X	X	X		X	X	X	X	X	X	X

CH-53E EAC									
METL	CH-53E CORE PLUS SKILLS								
	*HIE	*INT	*GTR	*DM	*NBC	*CQ	*MTG	*TG	*TAC
a. Conduct Shipboard Deck Landing Qualifications					X	X			
b. Conduct Sea and Air Deployment Operations	X	X	X	X	X	X	X	X	X
c. Conduct Air Assault Operations and Air Assault	X	X	X	X	X	X	X	X	X
d. Conduct Amphibious Assault and Raid Operations	X	X	X	X	X	X	X	X	X
e. Distribute Supplies and Provide Transport Service	X	X	X	X	X	X	X	X	X
f. Conduct Joint Logistics Over-The-Shore Operations (JLOTS)	X	X	X	X	X	X	X	X	X
g. Conduct Joint Personnel Recovery	X	X	X	X	X	X	X	X	X
h. Conduct Noncombatant Evacuation	X	X	X	X	X	X	X	X	X
* Core Plus Skill									

6. CH-53E Core Model Minimum Requirements (CMMR). CMMR is measured in terms of the minimum numbers of core skill proficient crews and minimum numbers of combat leaders per paragraphs a. and b. below:

a. Minimum Unit CSP Requirements. As a minimum, in order to be considered Core Competent, a unit must possess the following numbers of crews who are proficient in each core skill (Unit Core Skill Proficiency [CSP]).

CH-53E CMMR (Unit CSP Requirements) Squadron				
CORE SKILL *CORE PLUS	Pilots	Crew Chiefs	AO	Crews
FAM/INST	32	-	-	16
INT	-	12	12	12
FORM	24	12	12	12
CAL	24	12	12	12
TERF	24	12	12	12
EXT	24	12	12	12
AR	12	-	-	6
FCLP	24	12	12	12
AG	16	8**		8
GTR	24	12	12	12
TAC	16	8	8	8
NS HLL	24	12	12	12
NS LLL	16	8	8	8
*HIE	8	4	4	4
*INT	-	4**		4
*GTR	16	8	8	8
*DM	16	8	8	8
*NBC	16	8	8	8
*CQ	18	9	9	9
*MTG	-	6**		6
*TG	-	8**		8
*TAC	16	8	8	8

CH-53E CMMR (Unit CSP Requirements) Squadron (-) (less 4 plane detachment)				
CORE SKILL *CORE PLUS	Pilots	Crew Chiefs	AO	Crews
FAM/INST	24	-	-	12
INT	-	8	8	8
FORM	16	8	8	8
CAL	16	8	8	8
TERF	16	8	8	8
EXT	16	8	8	8
AR	8	-	-	4
FCLP	16	8	8	8
AG	12	6**		6
GTR	16	8	8	8
TAC	12	6	6	6
NS HLL	16	8	8	8
NS LLL	12	6	6	6
*HIE	6	3	3	3
*INT	-	4**		4
*GTR	12	6	6	6
*DM	12	6	6	6
*NBC	12	6	6	6
*CQ	10	5	5	5
*MTG	-	6**		6
*TG	-	6**		6
*TAC	12	6	6	6

CH-53E CMMR (Unit CSP Requirements) Reserve Squadron				
CORE SKILL *CORE PLUS	Pilots	Crew Chiefs	AO	Crews
FAM/INST	18	-	-	9
INT	-	6	6	6
FORM	12	6	6	6
CAL	12	6	6	6
TERF	12	6	6	6
EXT	12	6	6	6
AR	6	-	-	3
FCLP	12	6	6	6
AG	8		4**	4
GTR	12	6	6	6
TAC	6	3	3	3
NS HLL	12	6	6	6
NS LLL	6	3	3	3
*HIE	4	2	2	2
*INT	-		2**	2
*GTR	8	4	4	4
*DM	8	4	4	4
*NBC	8	4	4	4
*CQ	8	4	4	4
*MTG	-		4**	4
*TG	-		4**	4
*TAC	6	3	3	3

CH-53E CMMR (Unit CSP Requirements) 4 Plane Detachment				
CORE SKILL *CORE PLUS	Pilots	Crew Chiefs	AO	Crews
FAM/INST	8	-	-	4
INT	-	4	4	4
FORM	8	4	4	4
CAL	8	4	4	4
TERF	8	4	4	4
EXT	8	4	4	4
AR	4	-	-	2
FCLP	8	4	4	4
AG	4		4**	2
GTR	8	4	4	4
TAC	4	2	2	2
NS HLL	8	4	4	4
NS LLL	4	2	2	2
*HIE	4	2	2	2
*INT	-		1**	1
*GTR	8	4	4	4
*DM	8	4	4	4
*NBC	4	2	2	2
*MTG	-		4**	4
*TG	-		4**	4
*TAC	4	2	2	2

b. A standard CH-53E crew consists of 2 pilots, a Crew Chief (CC), and an Aerial Observer (AO). Crew chief surpluses may be used to satisfy AO requirements. A CSP crew consists of individuals representing each crew position who have achieved and maintain individual CSP. In order to be considered proficient in a core skill, a crewmember must attain and maintain proficiency in core skill events, as delineated in paragraphs (1) and (2) below.

* Proficiency in Core Plus Skills is not required to obtain unit CSP.

** Position may be filled by either CC or AO.

(1) Events Required to Attain Individual CSP. To initially attain CSP in a core skill, an individual must simultaneously have a 'proficient' status in all of the Core (200-300) T&R events listed in the table below for that core skill.

CH-53E Crew Chief Individual CSP Attain Table											
Core Skills	INT	FORM	CAL	TERF	EXT	FCLP	AG	GTR	TAC	NS HLL	NS LLL
T&R event requirements to attain CSP	200R	210R	220	230	240R	271R	280R	350R	290	211R	320
	201R		221R	231R	241R	272	281R		390R	222	321R
					242R	273R	380R			223R	330
					243R		381R			232	331R
					244R					233R	391R
					342R					291R	
					343R						
R = Refresher S = Event conducted in simulator											

CH-53E AO Individual CSP Attain Table											
Core Skills	INT	FORM	CAL	TERF	EXT	FCLP	AG	GTR	TAC	NS HLL	NS LLL
T&R event requirements to attain CSP	200R	210R	220	230	240R	271R	280R	350R	290	211R	320
	201R		221R	231R	241R	272	281R		390R	222	321R
					242R	273R	380R			223R	330
					243R		381R			232	331R
					244R					233R	391R
					342R					291R	
					343R						
R = Refresher S = Event conducted in simulator											

(2) Events Required to Maintain Individual CSP. To maintain CSP in a core skill, an individual must maintain proficiency in all of the Core (200-300) T&R events listed in the table below for that core skill.

CH-53E Crew Chief Individual CSP Maintain Table											
Core Skills	INT	FORM	CAL	TERF	EXT	FCLP	AG	GTR	TAC	NS HLL	NS LLL
T&R event requirements to maintain CSP	200R 201R	210R	221R	231R	244R 342R 343R	273R	281R 381R	350R	390R	223R 233R 291R	321R 331R 391R
R = Refresher S = Event conducted in simulator											

CH-53E AO Individual CSP Maintain Table											
Core Skills	INT	FORM	CAL	TERF	EXT	FCLP	AG	GTR	TAC	NS HLL	NS LLL
T&R event requirements to maintain CSP	200R 201R	210R	221R	231R	244R 342R 343R	273R	281R 381R	350R	390R	223R 233R 291R	321R 331R 391R
R = Refresher S = Event conducted in simulator											

(3) Events Required To Attain Individual Proficiency In Core Plus Skills. Proficiency in core plus skills is not required to obtain unit CSP. Training to core plus skills is at the discretion of the unit commanding officer. To initially attain proficiency in a core plus skill, an individual must simultaneously have a 'proficient' status in all of the T&R events listed in the table below for that core plus skill:

CH-53E Crew Chief Individual Core Plus Skills Attain Table										
Core Plus Skills	*HIE	*INT	*GTR	*DM	*NBC	*CQ	*MTG	*TG	*TAC	
T&R event requirements to attain Core Skill Plus Proficiency	400R 401R 402R	410R	450R	451R 452R	460R	470 471 472R	480R	481R 482R 483R	490R 492R	
R = Refresher S = Event conducted in simulator										

CH-53E AO Individual Core Plus Skills Attain Table									
Core Plus Skills	*HIE	*INT	*GTR	*DM	*NBC	*CQ	*MTG	*TG	*TAC
T&R event requirements to attain Core Skill Plus Proficiency	400R 401R 402R	410R	450R	451R 452R	460R	470 471 472R	480R	481R 482R 483R	490R 492R
R = Refresher S = Event conducted in simulator									

(4) Events Required to Maintain Individual Proficiency in Core Plus Skills. To maintain proficiency in a core plus skill, an individual must maintain proficiency in all of the T&R events listed in the table below for that core plus skill:

CH-53E Crew Chief Individual Core Plus Skills Maintain Table									
Core Skills	*HIE	*INT	*GTR	*DM	*NBC	*CQ	*MTG	*TG	*TAC
T&R event requirements to Maintain Core Skill Plus Proficiency	400R 401R 402R	410R	450R	451R 452R	460R	472R	480R	483R	490R 492R
R = Refresher S = Event conducted in simulator									

CH-53E AO Individual Core Plus Skills Maintain Table									
Core Skills	*HIE	*INT	*GTR	*DM	*NBC	*CQ	*MTG	*TG	*TAC
T&R event requirements to Maintain Core Skill Plus Proficiency	400R 401R 402R	410R	450R	451R 452R	460R	472R	480R	483R	490R 492R
R = Refresher S = Event conducted in simulator									

7. Qualifications And Designations Tables. The tables below delineate T&R events required to be completed to attain initial qualifications and designations. All stage lectures, briefs, squadron training and prerequisites shall be complete prior to completing final events. Qualification and designation letters signed by the commanding officer shall be placed in individual NATOPS and APR/MPR jackets. Loss of proficiency in all qualification events of a core skill causes the associated qualification to be lost. Regaining a qualification requires completing all R coded syllabus events associated with that qualification. Re-designation criteria shall be in accordance with T&R Program Manual and paragraph 130.4 of this Manual.

Qualification	Initial Event Qualification Requirements
TERF	230, 231 (R)
DM	451 (R), 452 (R)
NSQ-HLL	211R, 222, 223 (R), 232, 233 (R), 291 (R)
NSQ-LLL	320, 321 (R), 330, 331 (R), 391 (R)
AG	280, 281 (R), 380, 381 (R)
TG	481, 482, 483 (R)
NATOPS	600 and IAW OPNAV 3710.7.

Designation	Designation Requirements
TERFI	IAW MAWTS-1 Course Catalog
DMI	IAW MAWTS-1 Course Catalog
NSI	IAW MAWTS-1 Course Catalog
WTI	IAW MAWTS-1 Course Catalog
AGI (CC/AO)	IAW MAWTS-1 Course Catalog
TGI (CC)	IAW MAWTS-1 Course Catalog
NSFI	IAW MAWTS-1 Course Catalog

8. Instructor Requirements. A squadron should possess the following numbers of aircrew with the listed instructor designations IAW the CH-53 T&R and MCO 3500.12C (WTTP).

Squadron		
INSTRUCTOR DESIGNATION	Crew Chiefs	AO
TERFI	8	
DMI	4	
NSI	6	
WTI	3	
AGI		6*
TGI		2
*AO designated as AGI's may be used to fulfill this requirement.		

Reserve Squadron		
INSTRUCTOR DESIGNATION	Crew Chiefs	AO
TERFI	3	
DMI	2	
NSI	3	
WTI	2	
AGI		3*
TGI		1
*AO designated as AGI's may be used to fulfill this requirement.		

Squadron (-)		
INSTRUCTOR DESIGNATION	Crew Chiefs	AO
TERFI	3	
DMI	2	
NSI	4	
WTI	2	
AGI		3*
TGI		1
*AO designated as AGI's may be used to fulfill this requirement.		

Detachment		
INSTRUCTOR DESIGNATION	Crew Chiefs	AO
TERFI	2	
DMI	1	
NSI	1	
WTI	1	
AGI		1*
TGI		1
ARI		-
*AO designated as AGI's may be used to fulfill this requirement.		

201. MARINE HEAVY HELICOPTER SQUADRON (CH-53D) UNIT CORE COMPETENCY. Marine Aviation plays a crucial role in the MAGTF's ability to conduct Maneuver Warfare. The ultimate goal of Marine Aviation is to attain the highest possible combat readiness to support Expeditionary Maneuver Warfare while at the same time preserving and conserving our Marines and equipment. Embedded within our combat readiness is the ability to rapidly, effectively, and efficiently deploy on short notice and the ability to quickly and effectively plan for crises and/or contingency operations thereby ensuring Marine Aviation remains ready for combat when and where the need arises. The CH-53 T&R Manual represents the collaborative effort of CH-53 Subject Matter Experts who designed training standards to maximize the full combat capabilities of the CH-53 and its crew. These standards, intrinsic in the core competency section, describe and define unit capabilities and requirements necessary to maintain like-squadron proficiency in core skills and combat leadership. Training events are based on specific requirements and performance standards to ensure aircrew maintain a common base of training and depth of combat capabilities. Together, the T&R comprises a building block approach to ensure that trained aircrews remain ready, relevant, and fully capable of supporting the MAGTF commander.

1. HMH Mission. Support the MAGTF Commander by providing assault support transport of combat troops, supplies, and heavy equipment, day or night under all weather conditions during expeditionary, joint or combined operations.

2. Mission Essential Task List (METL)

a. (UJTL TA 1.1.2) Conduct Shipboard Deck Helicopter Landing Qualifications.

b. (UJTL TA 1.1.4) Conduct Sea and Air Deployment Operations.

(1) Maintain the capability to deploy and operate from advanced bases, expeditionary airfields, Forward Operating Bases (FOBs), and naval shipping.

(2) Perform organizational maintenance on assigned aircraft.

c. (UJTL TA 1.2.1) Conduct Air Assault Operations and Air Assault

(1) Provide assault support transport of heavy equipment, supplies, and combat troops using internal and/or external means.

(2) Provide support for casualty evacuation operations.

(3) Maintain self-defense capability from ground-to-air and air-to-air threats.

d. (UJTL TA 1.2.3) Conduct Amphibious Assault and Raid Operations

(1) Conduct assault support for maritime special operations.

e. (UJTL TA 4.2) Distribute Supplies and Provide Transport Service

(1) Conduct Aerial Re-supply.

(2) Provide support for mobile Forward Arming and Refueling Points (FARPS).

f. (UJTL TA 4.4) Conduct Joint Logistics Over-The-Shore Operations (JLOTS).

g. (UJTL TA 6.2) Conduct Joint Personnel Recovery.

(1) Conduct Tactical Recovery of Aircraft and Personnel (TRAP) operations.

(2) Augment local Search and Rescue (SAR) assets.

h. (UJTL TA 6.4) Conduct Noncombatant Evacuation.

(1) Provide support for evacuation operations.

3. Table of Organization. Refer to Table of Organization 8950X managed by Total Force Structure, MCCDC, for current authorized organizational structure and personnel strength for CH-53D units. As of this publication date, CH-53D units are authorized:

Squadron
10 Aircraft
27 Pilots/22 Crew Chiefs/16 Aerial Observers

4. Core Capability. A core capable CH-53D squadron is able to sustain 17 sorties listed below on a daily basis during contingency/combat operations. The sortie rates are based on 1.5 hour average sortie duration and assumes \geq 70 percent FMC aircraft and assigned crews \geq 90 percent T/O aircrew. If unit FMC aircraft $<$ 70 percent or assigned crews $<$ 90 percent T/O, core capability will be degraded by a like percentage. A core capable squadron is able to accomplish all tasks designated in the unit METL from a main base, expeditionary base, or amphibious platform.

5. METL/Core Skill Matrix. CH-53D core skills directly support the METL as follows:

CH-53D EAC												
METL	CH-53D CORE SKILLS											
	FAM/ INST	INT	FORM	CAL	TERF	EXT	FCLP	AG	GTR	TAC	NS HLL	NS LLL
a. Conduct Shipboard Deck Landing Qualifications	X		X	X			X				X	X
b. Conduct Sea and Air Deployment Operations	X	X	X	X	X	X	X	X	X	X	X	X
c. Conduct Air Assault Operations and Air Assault	X	X	X	X	X	X	X	X	X	X	X	X
d. Conduct Amphibious Assault and Raid Operations	X	X	X	X	X	X	X	X	X	X	X	X
e. Distribute Supplies and Provide Transport Service	X	X	X	X	X	X	X	X	X	X	X	X
f. Conduct Joint Logistics Over-The-Shore Operations (JLOTS)	X	X	X	X	X	X	X	X	X	X	X	X
g. Conduct Joint Personnel Recovery	X	X	X	X	X		X	X	X	X	X	X
h. Conduct Noncombatant Evacuation	X	X	X	X	X		X	X	X	X	X	X

CH-53D EAC								
METL	CH-53D CORE PLUS SKILLS							
	*HIE	*GTR	*DM	*NBC	*CQ	*MTG	*TG	*TAC
a. Conduct Shipboard Deck Landing Qualifications				X	X			
b. Conduct Sea and Air Deployment Operations	X	X	X	X	X	X	X	X
c. Conduct Air Assault Operations and Air Assault	X	X	X	X	X	X	X	X
d. Conduct Amphibious Assault and Raid Operations	X	X	X	X	X	X	X	X
e. Distribute Supplies and Provide Transport Service	X	X	X	X	X	X	X	X
f. Conduct Joint Logistics Over-The-Shore Operations (JLOTS)	X	X	X	X	X	X	X	X
g. Conduct Joint Personnel Recovery	X	X	X	X	X	X	X	X
h. Conduct Noncombatant Evacuation	X	X	X	X	X	X	X	X
*Core Plus Skill								

6. CH-53D Core Model Minimum Requirements (CMMR). CMMR is measured in terms of the minimum numbers of core skill proficient crews and minimum numbers of leaders per paragraphs a and b below:

a. Minimum Unit CSP Requirements. As a minimum, in order to be considered Core Competent, a unit must possess the following numbers of crews who are proficient in each core skill (Unit CSP).

CH-53D CMMR (Unit CSP Requirements) Squadron				
CORE SKILL *CORE PLUS	Pilots	Crew Chiefs	AO	Crews
FAM/INST	20	-	-	-
INT	-	10	10	10
FORM	16	8	8	8
CAL	16	8	8	8
TERF	16	8	8	8
EXT	16	8	8	8
FCLP	16	8	8	8
AG	12	6**		6
GTR	16	8	8	8
TAC	12	6	6	6
NS HLL	16	8	8	8
NS LLL	12	6	6	6
*HIE	6	3	3	3
*GTR	12	6	6	6
*DM	12	6	6	6
*NBC	16	8	8	8
*CQ	16	8	8	8
*MTG	-	6**		6
*TG	-	6**		6
*TAC	16	8	8	8

b. A standard CH-53D crew consists of 2 pilots, a CC, and an AO. Crew chief surpluses may be used to satisfy AO requirements. ** Position may be filled by either CC or AO. A CSP crew consists of individuals representing each crew position who have achieved and maintain individual CSP. In order to be considered proficient in a core skill, a crewmember must attain and maintain proficiency in core skill events, as delineated below.

(1) Events Required to Attain Individual CSP. To initially attain CSP in a core skill, an individual must simultaneously have a 'proficient' status in all of the Core (200-300) T&R events listed in the table below for that core skill.

CH-53D Crew Chief Individual CSP Attain Table											
Core Skills	INT	FORM	CAL	TERF	EXT	FCLP	AG	GTR	TAC	NS HLL	NS LLL
T&R event requirements to attain CSP	200R 201R	210R	220 221R	230 231R	241R 242R 244R 342R 343R	271 272 273R	280R 281R 380R 381R	350R	290 390R	211R 222 223R 232 233R 291R	320 321R 330 331R 391R
R = Refresher POI Event S = Event conducted in simulator											

CH-53D AO Individual CSP Attain Table											
Core Skills	INT	FORM	CAL	TERF	EXT	FCLP	AG	GTR	TAC	NS HLL	NS LLL
T&R event requirements to attain CSP	200R	210R	220	230	241R	271	280R	350R	290	211R	320
	201R		221R	231R	242R	272	281R		390R	222	321R
					244R	273R	380R			223R	330
					342R		381R			232	331R
					343R					233R	391R
R = Refresher POI Event S = Event conducted in simulator											

(2) Events Required to Maintain Individual CSP. To maintain CSP in a core skill, an individual must maintain proficiency in all of the Core (200-300) T&R events listed in the table below for that core skill.

CH-53D Crew Chief Individual CSP Maintain Table											
Core Skills	INT	FORM	CAL	TERF	EXT	FCLP	AG	GTR	TAC	NS HLL	NS LLL
T&R event requirements to maintain CSP	200R	210R	221R	231R	244R	273R	281R	350R	390R	223R	321R
	201R				342R		381R			233R	331R
					343R					291R	391R
R = Refresher POI Event S = Event conducted in simulator											

CH-53D AO Individual CSP Maintain Table											
Core Skills	INT	FORM	CAL	TERF	EXT	FCLP	AG	GTR	TAC	NS HLL	NS LLL
T&R event requirements to maintain CSP	200R	210R	221R	231R	244R	273R	281R	350R	390R	223R	321R
	201R				342R		381R			233R	331R
					343R					291R	391R
R = Refresher POI Event S = Event conducted in simulator											

(3) Events Required To Attain Individual Proficiency In Core Plus Skills. Proficiency in core plus skills is not required to obtain unit CSP. Training to core plus skills is at the discretion of the unit commanding officer. To initially attain proficiency in a core plus skill, an individual must simultaneously have a 'proficient' status in all of the T&R events listed in the table below for that core plus skill:

CH-53D Crew Chief Individual Core Plus Skills Attain Table								
Core Plus Skills	*HIE	*GTR	*DM	*NBC	*CQ	*MTG	*TG	*TAC
T&R event requirements to attain Core Skill Plus Proficiency	400R	450R	451R	460R		480R	481R	490R
	401R		452R		472R		482R	492R
	402R						483R	
R = Refresher POI Event S = Event conducted in simulator								

CH-53D AO Individual Core Plus Skills Attain Table								
Core Plus Skills	*HIE	*GTR	*DM	*NBC	*CQ	*MTG	*TG	*TAC
T&R event requirements to attain Core Skill Plus Proficiency	400R 401R 402R	450R	451R 452R	460R	472R	480R	481R 482R 483R	490R 492R
R = Refresher POI Event S = Event conducted in simulator								

(4) Events Required to Maintain Individual Proficiency in Core Plus Skills. To maintain proficiency in a core plus skill, an individual must maintain proficiency in all of the T&R events listed in the table below for that core plus skill:

CH-53D Crew Chief Individual Core Plus Skills Maintain Table								
Core Plus Skills	*HIE	*GTR	*DM	*NBC	*CQ	*MTG	*TG	*TAC
T&R event requirements to maintain Core Skill Plus Proficiency	400R 401R 402R	450R	451R 452R	460R	472R	480R	483R	490R 492R
R = Refresher POI Event S = Event conducted in simulator								

CH-53D AO Individual Core Plus Skills Maintain Table								
Core Plus Skills	*HIE	*GTR	*DM	*NBC	*CQ	*MTG	*TG	*TAC
T&R event requirements to maintain Core Skill Plus Proficiency	400R 401R 402R	450R	451R 452R	460R	472R	480R	483R	490R 492R
R = Refresher POI Event S = Event conducted in simulator								

7. Qualifications And Designations Tables. The tables below delineate T&R events required to be completed to attain initial qualifications and designations. All stage lectures, briefs, squadron training and prerequisites shall be complete prior to completing final events. Qualification and designation letters signed by the commanding officer shall be placed in individual NATOPS and APR/MPR jackets. Loss of proficiency in all qualification events of a core skill causes the associated qualification to be lost. Regaining a qualification requires completing all R coded syllabus events associated with that qualification. Re-designation criteria shall be in accordance with MCO P3500.14 and paragraph 130.4 of this Manual.

Qualification	Initial Event Qualification Requirements
TERF	230, 231 (R)
DM	451 (R), 452 (R)
NSQ-HLL	211 (R), 222, 223 (R), 232, 233 (R), 291 (R)
NSQ-LLL	320, 321 (R), 330, 331 (R), 391 (R)
AG	280 (R), 281 (R), 380 (R), 381 (R)

Designation	Designation Requirements
TERFI	IAW MAWTS-1 Course Catalog
DMI	IAW MAWTS-1 Course Catalog
NSI	IAW MAWTS-1 Course Catalog
WTI	IAW MAWTS-1 Course Catalog
CSII	508, 509, 510
AGI (CC/AO)	IAW MAWTS-1 Course Catalog
TGI (CC)	IAW MAWTS-1 Course Catalog
NSFI	IAW MAWTS-1 Course Catalog

8. Instructor Requirements. A squadron should possess the following numbers of aircrew with the listed instructor designations IAW the CH-53 T&R and MCO 3500.12C (WTTP).

Squadron		
INSTRUCTOR DESIGNATION	Crew Chiefs	AOs
TERFI	4	
DMI	2	
NSI	3	
WTI	2	
CSII	1	
AGI		3*
TGI		2

*AO designated as AGIs may be used to fulfill this requirement.

202. PROGRAM OF INSTRUCTION (POI) FOR BASIC AND TRANSITION CREW CHIEF

WEEKS	COURSE/PHASE	ACTIVITY
1-17	CH-53E Core Skill Intro	FRS
	Core Skill Basic Phase	Tactical Squadron
	Core Skill Advanced Phase	Tactical Squadron
	Core Skill Plus Phase	Tactical Squadron

203. POI FOR REFRESHER AND SERIES CONVERSION CREW CHIEF

WEEKS	COURSE/PHASE	ACTIVITY
1	CH-53D or CH-53E Familiarization	Tactical Squadron/MAG-24
2-4	Ground Schools/OJT	Tactical Squadron/MAG-24
5-12	Core Skill Introduction Phase	Tactical Squadron/MAG-24
	Core Skill Basic Phase	Tactical Squadron
	Core Skill Advanced Phase	Tactical Squadron
	Core Skill Plus Phase	Tactical Squadron

204. POI FOR BASIC, TRANSITION, REFRESHER AND SERIES CONVERSION AERIAL OBSERVER

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-2	Ground School	Tactical Squadron
3-15	Core Skill Introduction Phase	Tactical Squadron
	Core Skill Basic Phase	Tactical Squadron
	Core Skill Advanced Phase	Tactical Squadron
	Core Skill Plus Phase	Tactical Squadron

210. GROUND TRAINING COURSES OF INSTRUCTION

<u>COURSE</u>	<u>ACTIVITY</u>
SERE School	Jt Training Course
CH-53D/E Power Plants and Related/Rotors	CNATT MARU
Appropriate Aerial Gunnery School	Group/Squadron
Aviation Physiology/Aviation Water Survival	Aviation Physiology Unit

211. AIRCREW TRAINING REFERENCES. Aircrews shall use the following references to ensure safe and standardized training and maintenance procedures, grading criteria, and aircraft operation:

<u>Designator</u>	<u>Title</u>
OPNAVINST 3710.7	NATOPS General Flight and Operations
NAVAIR 01-230HMA-1	CH-53D NATOPS Flight Manual
NAVAIR A1-H53BE-NFM-000	CH-53E NATOPS Flight Manual
MCO P3500.14	T&R Program Manual
MCO P4790.20	Individual Training Standards System (MATMEP)
MCO 3501.4	Marine Corps Combat Readiness and Evaluation System
OPNAVINST 4790.2	Naval Aviation Maintenance Program
Support Package	MAWTS-1 Course Catalog
Support Package	MAWTS-1 Enlisted Aircrew Academic
NAVAIR 00-80T-106	LHA/LPH/LHD NATOPS Manual
NWP-42	Shipboard Helicopter Operations Manual
ANTTP 3-22.3-53 & Procedures	CH-53 Air Naval Tactics Techniques

212. SQUADRON LEVEL TRAINING. Review all applicable manuals and consult the MAWTS-1 Course Catalog for the recommended lecture in the Enlisted Academic Support Package applicable to this stage of training.

NATOPS Manual
ANTTP 3-22.3-53
Publications and Related Directives
Communications Procedures
Fueling and Servicing
Ground Handling
Helicopter Loading/Equipment Storage
Maintenance Procedures and Troubleshooting
Safety
Survival and First Aid
Aerial Gunnery Training
Aerial Delivery
CH-53 FARP
External Operations
Helicopter Insertion/Extraction Operations
MAGTF Organization/Equipment
MAGTF: The Amphibious Assault
Map Reading
Night Vision Systems
Night Vision Techniques
Rappel Operations
Rope Suspension Training
Search and Rescue
Shipboard Operations and Procedures
Terrain Flight Introduction
Terrain Flight Externals
TRAP
Tactical Briefing/Debriefing
AN/ALE Systems (S)
APR-39 Trainer (15E36) (S)
Helo ESM/ECM Equipment (S)
Countering the FW Threat
Counter Surface-to-Air Threats (S)
Countering the RW Threat (S)
Helicopter Defensive Measures
NBC Threat(S)
Recognition Training
Soviet model IADS
Tactical Formation Maneuvering
Tactical Crew Resource Management Responsibilities

230. EVENT PERFORMANCE REQUIREMENTS

1. General

a. This Manual is written to allow for local conditions and yet remain unclassified. DC AVN and CG MCCDC encourage squadrons to use the full range of tactics in the tactical manuals and adopt the latest developed and proven tactics.

b. All events shall terminate with a comprehensive debrief with emphasis on aircrew performance using all evaluation techniques.

c. Aircrew shall fly events annotated with an N at least 30 minutes after official sunset.

d. Aircrew shall fly night events in accordance with the following list of acronyms for event conditions:

Environmental Conditions	
Code	Meaning
	Shall be flown daytime: (by exception - there is no use of a symbol).
N	Shall be flown at night, may be aided or unaided.
N*	Shall be flown at night, must be flown unaided.
(N*)	May be flown at night - If flown at night, must be flown unaided.
(N)	May be flown at night - If flown at night; may be flown aided or unaided.
NS	Shall be flown during at night - Mandatory use of Night Vision Devices.
(NS)	May be flown at night - If flown at night; must be flown with Night Vision Devices.
Note - If the event is to be flown in the simulator the Simulator Instructor shall set the desired environmental conditions for the event.	

e. List of Acronyms for Crew Requirements:

- (1) CC - Crew Chief.
- (2) AO - Aerial Observer.
- (3) CCUI - Crew Chief Under Instruction.
- (4) AOUI - Aerial Observer Under Instruction.
- (5) AG - Aerial Gunner (may be a Crew Chief or Aerial Observer who is aerial gun qualified).
- (6) AGUI - Aerial Gunner Under Instruction (may be a Crew Chief or Aerial Observer).
- (7) TG - Tail Gunner.
- (8) TGUI - Tail Gunner Under Instruction.

f. A CCUI shall complete the appropriate Marine Enlisted Aircrew Training (MEAT) academic instruction prior to commencement of flight training.

2. Syllabus Assignment

a. CH-53 Basic, Transition, Model Conversion and Refresher Aircrew

(1) Basic, Transition, and Model Conversion aircrew shall be assigned to fly the entire Basic POI. Refresher aircrew will fly those events designated by an R in the flight description.

(2) The squadron training officer shall enter all Aircrew Training Forms (ATF) in section 3 of the APR for all flights designated by R in the

flight description. These ATFs will replace ATFs previously entered in section 3.

b. CH-53E to CH-53D Initial Accession Series Conversion

(1) CH-53D Core Skill Introduction training conducted at MAG-24 shall be conducted IAW the MAG-24 Core Skill Introduction Training Standardization Manual. The MAG-24 standardization department shall manage and execute CH-

53E to CH-53D Initial Accession Series Conversion Core Skill Introduction training (vice a CH-53 FRS).

(2) Aircrew assigned to these syllabi shall check into their parent squadron and subsequently be issued TAD orders to MAG-24. Aircrew shall be assigned to the MAG-24 standardization department for the duration of Core Skill Introduction training. Parent squadrons shall not assign these aircrew collateral duties during the course of Core Skill Introduction training.

(3) The MAG-24 standardization department shall be headed by the MAG DOSS and shall be manned by a minimum of 3 pilot and 3 CC CH-53D Core Skill Introduction Instructors (CSII). Each MAG-24 CH-53D Squadron shall be manned by a minimum of 1 pilot and 1 CC CSII.

(4) The MAG-24 standardization evaluator shall certify all CSIIIs prior to designation. The MAG-24 standardization evaluator shall conduct an annual standardization check for all MAG CSIIIs.

(5) Only the MAG-24 Commanding Officer may approve waiver/deferral of Core Skill Introduction training (per paragraph 305 of MCO P3500.14 (Program Manual)).

(6) MAG-24 shall coordinate aircraft support from CH-53D squadrons in support of these syllabi.

(7) All CH-53E to D Initial Accession Series Conversion flight events are 2.0 hours in duration.

(8) MAG-24 shall provide a training environment where other billet responsibilities do not detract from that training IAW MCO P3500.14 (Program Manual).

(9) CH-53E to CH-53D Initial Accession Series Conversion enlisted aircrew will fly those 100 level flights designated by a SCD in the event description.

(10) CH-53D initial accession enlisted aircrew will perform Basic Core Skill Introduction training at HMT-302 followed by CH-53E to CH-53D series conversion Core Skill Introduction training conducted at MAG-24. Upon completion of CH-53E to CH-53D series conversion Core Skill Introduction training, initial accession enlisted aircrew shall resume the Basic POI syllabus per the T&R.

c. CH-53 Series Conversion

(1) CH-53D to CH-53E Series conversion enlisted aircrew currently qualified on the CH-53D will fly those 100 level flights designated by an SCE in the event description at the tactical squadron.

(2) CH-53E to CH-53D Series conversion enlisted aircrew currently qualified on the CH-53E will fly those 100 level flights designated by a SCD in the event description at the tactical squadron.

(3) Upon completion of 100 level SCD/E events, Series Conversion enlisted aircrew shall continue to fly 200-400 level SC-coded events at the tactical squadron.

d. Secondary AMOS Crew Chief. All efforts shall be made with MMEA-84 to receive assignment of Primary MOS CCs prior to utilizing secondary AMOS program. If inventory shortages cannot be filled through MMEA-84, authorization is granted to individual unit CO's to train secondary AMOS 6173 under the following guidelines:

(1) The number of secondary MOS CCs that an individual unit Commander may train is limited to the current staffing formula; $1.6 \text{ CC} \times \text{primary assigned aircraft (PAA)} = \text{number of CCs minus primary/additional MOS CCs on hand}$. For example, if a squadron has 14 primary/additional MOS CCs assigned, and the staffing formula computes to 19 total CCs, unit commanders may only request to train a maximum of 5 secondary AMOS CCs to equal PAA.

(2) To ensure standardization of training and aviation adaptability, all requested trainees shall be designated an aerial observer prior to starting secondary AMOS training.

(3) The source population shall be restricted to aviation maintenance MOS of 611x, 615x, and 632x only. All requests shall be submitted via DMS format to CG TECOM ATB (C4610) for approval prior to trainee starting flight syllabus. MSG shall include:

- (a) Organization requesting training of secondary AMOS CC.
- (b) Name, rank, MOS, and SSN of trainee.
- (c) Total number of CCs rated by PAA.
- (d) Total number of primary and secondary AMOS CCs assigned to requesting MCC.
- (e) Adequate justification for training a secondary AMOS CC.
- (f) Faxed copy of initial AO NATOPS evaluation report (OPNAV 3710.7 form).

(4) Upon receipt of request, ATB will approve/disapprove request via ASL/ASM and notify requesting command through DMS format. Approved training will be conducted in strict compliance with this manual and MCO P1200.7 Military Occupational Specialties Manual. Additional requirements are outlined below:

(a) All Secondary AMOS Crew Chiefs shall be assigned to fly the entire Basic POI. Core Skill Basic, Advanced and Plus flights previously flown as an Aerial Observer shall not transfer to the training of the secondary AMOS CC. All flights must be flown with CCUI acting in the capacity of a CC.

(b) To ensure MOS standardization all core skill introduction (100 Level series) codes shall be flown with a current Enlisted Weapons and Tactics Instructor (MOS 6177) or NATOPS Evaluator/Instructor holding a primary MOS of 6173. Only a currently assigned and designated FRS CC instructor (CCI) shall administer the core skill introduction evaluation flight.

(c) The Total Time to Train (TTT) secondary AMOS CCs shall not exceed 6 months. The date of initial flight and completion of evaluation flight define the TTT.

(5) Only the FRS CO's have the authority to designate the secondary AMOS of 6173. The evaluation flight may be flown at the respective FRS or individual requesting squadron. Requesting commands shall coordinate with FRS for scheduling of the evaluation flight. TAD funding for either the trainee or FRS CC instructor shall be the responsibility of the requesting squadron.

(6) The FRS CCI shall administer the oral and Core Skill Introduction evaluation flight and closed book NATOPS examination. Prior to Core Skill Introduction evaluation flight parent commands shall ensure:

(a) Nominees complete squadron approved open book NATOPS examination.

(b) Nominees are designated a plane captain by unit CO.

(c) Prior to designation, nominees shall attend SERE training.

(7) Upon completion of Core Skill Introduction evaluation flight, copies of all certifications and evaluations shall be submitted to respective FRS CO's for secondary AMOS certification/approval. Documents to be submitted are:

(a) Copy of current flight physical.

(b) Copy of physiology/water survival Form 3760/32.

(c) Copy of all CC 100 series ATF's.

(d) Copy of current flight orders.

(e) Copy of section III(c), examination record, OPNAV 3760/32G.

(f) Copy of current plane captain designation.

(g) Copy of initial AO evaluation form, OPNAV 3710/7.

(h) Original CC evaluation form, OPNAV 3710/7.

(i) Copy of SERE completion certificate.

(j) Marines listed as instructor on 100 series ATFs must submit a copy of respective WTI certificate or NATOPS Evaluator/Instructor designation.

(k) The primary purpose of this documentation is to assist the model manager in tracking the certification process and identifies positive/negative trends in the training process.

(l) Evaluation standards applicable to primary MOS CCs shall be strictly adhered to.

(8) The FRS CCI shall forward original OPNAV 3710/7 form to FRS CO for approval. The FRS CO shall sign the NATOPS evaluation and a CC designation letter and forward to the originating command for insertion into trainees NATOPS jacket.

(9) In order to facilitate management of the MOS end strengths, secondary AMOS CCs desiring a primary 6173 MOS, will forward the appropriate AA form to MMEA-6 requesting a lateral move from a secondary AMOS CC to a primary MOS CC.

(10) On hand primary designated MOS CC shall have priority for crewmember flight orders IAW MCO1326.2G.

(11) This policy applies to Marines currently in training and is effective immediately. This is not applicable to Marines designated prior to this revision, or Marines currently assigned to the Executive Flight Detachment of HMX-1.

(12) Refer to DMS R CG TECOM ATB 141412Z APR 05 for Helicopter Additional MOS Crew Chief Training Program Message.

(13) POC for secondary AMOS Crew Chief Training Program is TECOM ATB.

4. Prior Qualification. Previously qualified CH-53 CCs and AOs returning from a non-flying tour will fly the appropriate Refresher POI.

5. Aircrew Training Events

a. All CCs and AOs shall have an evaluation form filled out upon completion of the following:

(1) Core Skill Introduction Check (CSIX-191). For initial accession or newly assigned aircrew, a designated FRS CCI or MAG-24 CSII shall evaluate the CSIX-191. For refresher or series conversion aircrew, a qualified NATOPS Instructor/Assistant or Evaluator shall evaluate the CSIX-191. This event is considered the initial NATOPS evaluation.

(2) Annual NATOPS Check (EVAL-600). A designated NATOPS Instructor/Assistant or Evaluator shall evaluate the EVAL-600.

(3) Any initial flight not requiring an instructor. A CC who is proficient in that sortie shall evaluate and complete an ATF.

(4) Any sortie that requires an NSI, AGI, TERFI, TGI or DMI.

b. If the commanding officer has waived or deferred a syllabus sortie, the squadron training officer shall place a waiver or deferment letter in section 3 of the APR.

c. All ATFs shall annotate the appropriate crew position under instruction.

6. Crew Resource Management (CRM). Aircrew shall brief techniques and aspects of CRM for all flights and/or events. The CC will always be alert for other aircraft or obstacles to flight. He will supervise internal loading at the direction of the pilot, verbally direct the pilot during external hookups and releases, and supervise the embarkation and debarkation of passengers. The CC may detect system failures before the pilot and must inform him of potential malfunctions. He can effect minor airborne repairs and supervise any additional crew members that the mission may require.

231. CORE SKILL INTRODUCTION PHASE

1. Familiarization (FAM)

a. Purpose. To familiarize the aircrew with CH-53 operations and procedures.

b. General

(1) Aircrew may fly these flights in conjunction with the pilot syllabus. All NS flights must be flown under ambient light conditions of .0022 LUX or greater. The aircrew should complete all appropriate familiarization stage flights prior to flying any subsequent flights.

(2) Instructors shall be a CCNSFI or CCNSI for FAM-121, FAM-122, INT-135 and INT-136 if flown with NS, FORM-153, CAL-163, CAL-164, EXT-171, and EXT-173.

c. Crew Requirement. CCI/CCUI or CCI/AOUI.

d. Training Prerequisite. Aircrew must complete their physical, Naval Aviation Water Survival Training Program (NAWSTP), Naval Aviation Physiology Training Program (NAPTP) prior to FAM-110.

e. Ground Training

- (1) Publications and related directives.
- (2) Safety.
- (3) Ground handling.
- (4) CRM.
- (5) Night Imaging and Threat Evaluation (NITE) Lab Instruction.
- (6) Fueling and servicing.
- (7) Helicopter loading and equipment storage.
- (8) Maintenance procedures and troubleshooting.

f. Flight Training. (8 Flights, 12.0 Hours).

FAM-110

1.5

1 CH-53

Goal. Introduce CH-53 aircrew duties.

Requirement

Discuss:

Engine compartment fire on the ground.
APP fire.
Fuselage fire.
Electrical fire.
Engine post shutdown fire.
Fire fighting equipment operation.
Hand and arm signals for fires.
System troubleshooting.

Introduce:

Preflight.

Starting.
Taxi directions.
Lookout doctrine.
Servicing.
Post flight.
Turnaround inspection.
Emergency egress procedures.
Proper use of aircrew pocket checklist.

Performance standards. Exhibit basic understanding of CH-53 aircrew duties.

Prerequisite. N/A.

FAM-111

1.5 SCD 1 CH-53

Goal. Practice CH-53 CC duties.

Requirement

Discuss:

Review FAM-110 (SCD).
Ramp operation.
Single, dual, and total engine failures on takeoff and landing.
Emergency water operation.
Flotation equipment and inflation procedures.
Ditching/abandoning aircraft.
Search and rescue scanning and sighting techniques.
Vibrations.
Landing gear system failure.

Introduce:

Blade and pylon fold procedures.
Systems troubleshooting.
Utility hoist operation, if equipped.
System function checks.

Practice:

Preflight and servicing.
Turn-up.
Taxi directions.
Lookout doctrine.
Shut down.
Post flight.

Performance Standards. Demonstrate a basic understanding of CH-53 CC duties.

Prerequisite. FAM-110.

FAM-112

1.5 1 CH-53

Goal. CCUI practices CH-53 CC duties.

Requirement

Review:

Aircrew Pocket Checklist Emergency Procedures.
Preflight and servicing.
Turn-up.

Taxi directions.
Lookout doctrine.
Shut down.
Post flight.

Performance Standards. Demonstrate a practical application of CH-53 CC duties IAW applicable NATOPS.

Prerequisite. FAM-111.

FAM-113

1.5 R,SCE 1 CH-53

Goal. CCUI reviews CH-53 CC duties.

Requirement

Discuss:
Basic CRM skills.

Review:
Emergency procedures.
Duties of the CC.

Performance Standards. Demonstrate basic CC duties.

Prerequisite. FAM-112.

FAM-119

1.5 SCD 1 CH-53 (NS)

Goal. Progress review of basic CC skills.

Requirement

Discuss:
Aircraft refueling procedures.
Aircraft tiedown.
Turn-up and shutdown procedures.
Emergency procedures.
Systems troubleshooting.

Performance Standards. Demonstrate basic CC skills, standard terminology, and application of emergency procedures.

Prerequisite. FAM-113.

FAM-120

1.5 1 CH-53 N*

Goal. Introduce CC duties during night operations in the CH-53.

Requirement

Discuss:
CH-53 lighting systems.
Night vision techniques as contained in ANTP 3-22.3-53.
Airfield lighting.

Demonstrate:
Use of cargo tie down lights.
Cargo loading lights.
Emergency exit lights.

Cabin lighting.

Introduce:
Night preflight.
Turn-up.
Taxi.
Lookout doctrine.
Shutdown.
Post flight procedures.

Performance Standards. Demonstrate a basic knowledge of night operations in the CH-53.

Prerequisite. FAM-113.

FAM-121

1.5 1 CH-53 NS

Goal. Introduce the aircrew to NS operations.

Requirement

Discuss:
NS and CRM as contained in ANTP 3-22.3-53.

Demonstrate:
Use of NS compatible cockpits.
Effects of cultural/artificial lighting on NS.

Introduce:
NS.
Ground relationship.
Obstacle clearance.
Distance estimation.
Depth perception.
Shadowing effects.

Performance Standards. Apply basic NS operational skills as demonstrated in the NITE LAB.

Prerequisite. FAM-113 and aircrew shall complete the NITE Lab. (FAM-110 for AO)

FAM-122

1.5 R 1 CH-53 NS

Goal. Review CC duties during NS operations.

Requirement

Discuss:
Cabin heater function.
Chill factor.

Review:
Night Preflight.
Turn-up.
Taxi.
Lookout doctrine.
Shutdown.
Post flight procedures.