

Performance Standards. Upon completion of event CCUI shall demonstrate proficiency in basic NS operations.

Prerequisite. FAM-121.

2. Internal Loads (INT)

a. Purpose. To introduce CC duties in loading, securing and unloading passengers, cargo and vehicles.

b. General

(1) Aircrew may fly these flights in conjunction with any stage of the pilot syllabus.

(2) Instructor shall be a CCI, CCNSFI or CCNSI if NS are used.

c. Crew Requirement. CCI/CCUI.

d. Ground Training. Appropriate sections of the A1-H53BE-GLG-000 (Cargo Loading Manual), NATOPS Flight Manual, and helicopter loading and equipment storage.

e. Flight Training. (2 Flights, 3.0 Hours).

INT-135 1.5 1 CH-53 (N)

Goal. Introduce CC duties during flights carrying internal cargo and/or vehicles.

Requirement

Discuss:

Safety regulations for loading and unloading cargo and vehicles.
Safety regulations.
Required flight/safety equipment for passengers.
Troops and litter patients over land and water.
MEDEVAC mission categories.

Introduce:

Use of the cargo winch.
Cargo and vehicle loading.
Cargo Tiedown.
Cargo unloading procedures.
Passenger briefing.
Embarking and debarking procedures.
Proper litter attachment and securing.

Review:

Ramp operation.

Performance Standards. Demonstrate basic knowledge of cargo winch and loading systems IAW the applicable Cargo Loading Manual.

Prerequisite. FAM-113.

INT-136

1.5

1 CH-53 (N)

Goal. Review CC duties during flights carrying internal cargo and/or vehicles.

Requirement

Demonstrate:

Use of the cargo winch.
Cargo and/or vehicle loading.
Cargo and/or vehicle unloading.

Review:

Emergency passenger egress.
Abandon and ditching aircraft procedures.

Performance Standards. Conduct basic crew and passenger brief IAW the Aircrew Pocket Checklist.

Prerequisite. FAM-113.

3. Formation (FORM)

a. Purpose. To familiarize the aircrew with responsibilities during formation flight with emphasis on CRM.

b. General

(1) Aircrew may fly this stage in conjunction with the formation stage of the pilot syllabus.

(2) Instructor shall be a CCI, CCNSFI or CCNSI for FORM-153.

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

d. Flight Training. (2 Flights, 3.0 Hours).

FORM-152

1.5

2 CH-53

Goal. Introduce aircrew responsibilities during formation flight.

Requirement

Discuss:

Parade position.
Formations.
Closure rate.
Hand and arm signals.
In-flight emergency procedures.
Standard terminology.

Performance Standards. Demonstrate a basic understanding and skill of formation flying IAW applicable NATOPS.

Prerequisite. FAM-113.

Range Requirements. Approved CAL/MAL site if conducted to a CAL site.

FORM-153

1.5

2 CH-53 NS

Goal. Introduce aircrew responsibilities during NS formation flight.

Requirement

Discuss:

Closure rate.
Aircraft lighting.
Light signals.
Lookout responsibilities.
Target fixation.
Standard terminology.
NS considerations.

Performance Standards. Demonstrate basic understanding and skill of NS formation flying IAW applicable NATOPS.

Prerequisite. FAM-122, FORM-152

Range Requirements. Approved CAL/MAL site if conducted to a CAL site.

4. Confined Area Landings (CAL)

a. Purpose. To introduce the aircrew to duties when landing in confined areas.

b. General

(1) Aircrew may fly this stage in conjunction with the CAL stage in the pilot syllabus.

(2) Instructor shall be a CCI, CCNSFI or CCNSI for CAL-163.

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

d. Ground Training

(1) Survival and First Aid.

(2) Communications Procedures.

e. Flight Training. (4 Flights, 6 Hours).

CAL-161

1.5

SCD 1 CH-53

Goal. Introduce aircrew responsibilities during CALs.

Requirement

Discuss:

CALs.
CRM.

Introduce:

Lookout doctrine.
CRM.
Main rotor, tail rotor, and aircraft fuselage clearances.
Obstacle clearance during the approach, landing, and

takeoff.
Suitability of LZ terrain.
Drift correction calls to the pilot prior to aircraft
touchdown.

Performance Standards. Demonstrate basic knowledge of CALs
IAW applicable NATOPS.

Prerequisite. FAM-113 (FAM-110 for AO).

Range Requirements. Approved CAL/MAL site.

CAL-162

1.5 R,SCD,SCE 2 CH-53

Goal. Introduce aircrew responsibilities during day section
CALs.

Requirement

Discuss:

Helicopter preparation.
Terrain.
Ground relationship.
Obstacle clearance.
Lookout doctrine with regards to section landings.
Standardized call for section landings into and out of LZ.
Wave off procedures.

Performance Standards. Demonstrate basic knowledge of section
CALs in accordance with applicable NATOPS.

Prerequisite. CAL-161.

Range Requirements. Approved CAL/MAL site.

CAL-163

1.5 1 CH-53 NS

Goal. Introduce aircrew responsibilities during CALs at night
utilizing NS.

Requirement

Discuss:

NS.
Helicopter preparation.
LZ lighting.
Terrain.
Ground relationship.
Obstacle clearance.
Distance estimation.
Depth perception.
Shadowing effects.
Drift calls.
Effects of snow, dust and rain.
Wave off procedures.

Performance Standards. Demonstrate basic aircrew
responsibilities during CALs utilizing NS IAW applicable
NATOPS and ANTP 3-22.3-53.

Prerequisite. FAM-122 and CAL-161.

Range Requirements. Approved CAL/MAL site.

CAL-164

1.5 R,SCE 2 CH-53 NS

Goal. Introduce aircrew responsibilities during section CALs at night utilizing NS.

Requirement

Discuss:

NS.
LZ lighting.
Distance estimation.
Depth perception.
Shadowing effects.
Effects of snow, dust and rain.
Lookout doctrine with regards to NS section landings.
Standardized call for NS section landings into and out of LZ.

Performance Standards. Demonstrate basic aircrew responsibilities during section CALs utilizing NS in accordance with applicable NATOPS and ANTP 3-22.3-53.

Prerequisite. CAL-163.

Range Requirements. Approved CAL/MAL site.

5. External Loads (EXT)

a. Purpose. To develop skills necessary for external cargo operations.

b. General

(1) Aircrew may fly this stage in conjunction with the external stage of the pilot syllabus.

(2) Instructor shall be a CCI, CCNSFI or CCNSI for EXT-171 and 173.

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

d. Ground Training. Consult MCRP 4-23E Multiservice Helicopter Sling Load Manual for Basic Operations and Equipment (Vol.1), Single Point Load Rigging Procedures (Vol.2) and Dual Point Load Rigging Procedures (Vol. 3).

e. Flight Training. (4 Flights, 5.0 Hours).

EXT-170

1.5 R,SCD,SCE 1 CH-53

Goal. Introduce aircrew duties and terminology used during single point external cargo operations.

Requirement

Discuss:

Crew Coordination.
External procedures.
HST considerations.

Standardized terminology.
Single point cargo hook system.
Cargo hook control panel.
Aircrew's portable pendant control.
Cargo hook emergency release handle (53D).
Static discharge precautions.
Load rigging.
Emergency cargo release.

Demonstrate:
Standardized terminology.
Cargo hook setup.
Hand and arm signals.

Introduce:
Standardized voice commands.
Loss of communication procedures.
Hookup and drop procedures.

Performance Standards. Perform 3 basic single point external hookups and releases IAW applicable NATOPS.

Prerequisite. CAL-161.

Range Requirements. Approved CAL/MAL site.

External Syllabus Support. HST and approved single point load.

EXT-171

1.5 R,SCD,SCE 1 CH-53 NS

Goal. Introduce aircrew duties and terminology used during single point external cargo operations utilizing NS.

Requirement

Review:
EXT-170.
FAM-122.

Discuss:
NS considerations.
Safety precautions.
Use of hover light.
External cargo lighting patterns.

Introduce:
Use of the hover light.
Use of Chem lights to mark cargo hook and load.
Hookup and drop procedures with NS.

Performance Standards. Perform 3 basic single point external hookups and releases while utilizing NS IAW applicable NATOPS.

Prerequisite. FAM-122 and EXT-170.

Range Requirements. Approved CAL/MAL site.

External Syllabus Support. HST and approved single point load.

EXT-172

1.5 R,SCE 1 CH-53

Goal. Review aircrew duties during external cargo operations in the CH-53D. Introduce aircrew duties and terminology used during dual point external operations in the CH-53E.

Requirement

Review:
EXT-170 (53D).

Discuss:

Proper preflight of dual point system.
Types of slings.
Crew coordination.
External procedures.
HST considerations.
Standardized terminology.
Dual point cargo hook system.
Cargo hook control panel.
Aircrew portable pendant control.
Cargo hook emergency release handle.
Static discharge precautions.
Load rigging.
Emergency cargo release.

Introduce:

Dual point external load hookup and release procedures.

Performance Standards. Perform 3 basic dual point hookups and releases IAW applicable NATOPS. For CH-53D review performance standards for the EXT-170.

Prerequisite. EXT-170.

Range Requirements. Approved CAL/MAL site.

External Syllabus Support. HST and approved dual point load.

EXT-173

1.5 R,SCE 1 CH-53 NS

Goal. Review aircrew duties during external cargo operations at night in the CH-53D. Introduce aircrew duties and terminology used during night dual point external operations in the CH-53E.

Requirement

Review:
EXT-172.

Discuss:

NS considerations
Safety precautions.
Use of hover light.
External cargo lighting patterns.

Introduce:

Use of the hover light.
Use of Chem lights to mark cargo hook and load.
Hookup and drop procedures with NS.

Performance Standards. Perform 3 basic dual point external hookups and releases utilizing NS IAW applicable NATOPS. For CH-53D review performance standards for EXT-171.

Prerequisite. EXT-171 and EXT-172.

Range Requirements. Approved CAL/MAL site.

External Syllabus Support. HST and approved dual point load.

6. Terrain Flight (TERF)

a. Purpose. To introduce skills necessary to perform TERF maneuvers safely; emphasize the importance of crew coordination, comfort level, and common terminology.

b. General

- (1) Rules of conduct per T&R Program Manual.
- (2) Instructor shall be CCI or TERFI.

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

d. Ground Training. FRS Terrain Flight Introduction lecture prior to this stage of training.

e. Flight Training. (1 Flight, 1.5 Hours).

TERF-180 1.5 R,SCD 1 CH-53

Goal. Introduce the aircrew to maneuvers, clearances, and navigation while flying in the TERF environment.

Requirement

Discuss:

Crew comfort levels.
CRM.
Lookout doctrine.
Terminology.
ICS procedures.
Aircraft clearances.
Emergency procedures.
TERF maneuvers.
Navigation.

Introduce:

Low level and contour flight.

Performance Standards. Perform basic TERF maneuvers and navigation while in the TERF environment IAW applicable NATOPS and ANTP 3-22.3-53.

Prerequisite. FAM-113.

Range Requirements. Approved TERF maneuver area/route and CAL/MAL site.

7. Core Skill Introduction Evaluation Flight

a. Purpose. To demonstrate proficiency in performing duties as a Core Skill Introduction complete CC or AO per criteria contained in the appropriate CH-53 NATOPS Flight Manual and OPNAVINST 3710.7.

b. General

(1) A qualified CCNI shall evaluate this flight.

(2) The CCUI or AOUI shall complete a H-53 NATOPS Flight Manual Open and Closed book examination prior to the Core Skill Introduction check. Upon completion of this flight, the student will be NATOPS qualified as a CC or AO.

c. Crew Requirement. FRSCCI/CCUI or CCNI/AOUI.

d. Ground/Academic Training. Review of NATOPS and Aircrew Pocket Checklist.

e. Flight Training. (1 Flight, 1.5 Hours).

CSIX-191 1.5 R,SCD,SCE E 1 CH-53 (NS)

Goal. Evaluate systems knowledge of the CH-53 and the capability to perform duties as a Core Skill Introduction CC or AO.

Requirement

Discuss:
Crew brief.

Demonstrate:
Aircraft system knowledge.
Pre/post flight procedures.
In-flight procedures.
Emergency procedures.
CRM.

Performance Standards. Demonstrate proficiency for the applicable crew position as stated in the applicable NATOPS and the OPNAVINST 3710.7.

Prerequisite. All prior applicable 100 level flights. For Ch-53D Series Conversion and Refresher POI individuals: CH-53 NATOPS open and closed book exam.

232. CORE SKILL BASIC PHASE. Aircrew undergoing instruction in this phase must have completed the MAWTS-1 Course Catalog Academic Support Package lectures applicable to this phase of training prior to conducting NS events. NS rules of conduct will be per T&R Program Manual. Aircrew will fly all NS events in this phase under ambient light conditions of .0022 LUX or greater. The aircrew under instruction is considered NSQ HLL (able to transport troops) when the following 6 events have been completed: FORM-211, CAL-222,

CAL-223, TERF-232, TERF-233, and TAC-291. These events require a CCNSI for all initial qualifications.

1. Internal Loads (INT)

- a. Purpose. To refine aircrew duties in loading, securing, unloading passengers, cargo and vehicles.
- b. Crew Requirement. CC, CC/CCUI or CC/AOUI.
- c. Ground/Academic Training. Review of NATOPS procedures for internal loads and Cargo Loading Manual.
- d. Flight Training. (2 Flights, 2.0 Hours).

INT-200 1.0 R 1 CH-53 (N)

Goal. Practice aircrew duties when carrying internal cargo and/or vehicles.

Requirement

Review:

INT-135.
INT-136.
Cargo and/or vehicle loading, securing, and unloading procedures.

Discuss:

Safety precautions and procedures used when transporting dangerous cargo petroleum, oxygen, lubricants (POL), liquid oxygen (LOX), pyrotechnics, and class V cargo (ammunition), etc.

Performance Standards. Demonstrate cargo and/or vehicle loading procedures IAW the Cargo Loading Manual and applicable NATOPS.

External Syllabus Support. Applicable cargo and/or vehicle(s).

INT-201 1.0 R 1 CH-53 (N)

Goal. Practice passenger briefing, embarking, securing, and debarking procedures.

Requirement

Review:

INT-136.
Procedures for embarking, securing, and debarking of passengers.

Discuss:

Problems encountered while embarking, securing and debarking passengers.
Emergency passenger egress.
Abandon/ditching aircraft.

Performance Standards. Demonstrate passenger briefing, embarking, securing, and debarking procedures IAW applicable NATOPS.

2. Formation (FORM)

a. Purpose. To review aircrew responsibilities during formation flight and introduce responsibilities of tactical formation flight, day and night.

b. General

(1) A CCNSI is required on initial FORM-211.

c. Crew Requirement. CC/AO, CC/CCUI or CC/AOUI. FORM-211 requires 2 HLL qualified aircrew if not an instructional flight.

d. Ground/Academic Training. Review of NATOPS procedures for FORM and ANTPP 3-22.3-53 techniques.

e. Flight Training. (2 Flights, 2.0 Hours).

FORM-210 1.0 R 2 CH-53

Goal. Demonstrate aircrew duties during basic formation flight and introduce tactical formation flight.

Requirement

Review:

Formation.
Closure rate.
Lead changes (to include form lead/tactical lead).
CRM.
Loss of visual contact with wingman.
Comfort levels.
Emergency procedures.
Section takeoffs, landings, approaches and waveoff's.

Introduce:

Section tactical formation.

Performance Standards. Demonstrate proficient knowledge of aircrew considerations during formation flight IAW applicable NATOPS. Practice aircrew duties during tactical formation flight IAW the applicable NATOPS and ANTPP 3-22.3-53.

FORM-211 1.0 R 2 CH-53 NS

Goal. Demonstrate aircrew duties during basic NS formation flight and introduce NS tactical formation flight.

Requirement

Instructor:

CCNSI required for initial qualification and re-qualification.

Review:

Formations.
Closure rate.

Lead changes(to include form lead/tactical lead).
CRM.
Loss of visual contact with wingman.
Comfort level.
Emergency procedures.

Introduce:
Section NS Tactical Formation.

Performance Standards. Demonstrate proficient knowledge of aircrew considerations during basic NS formation flight IAW the applicable NATOPS. Practice aircrew duties during NS tactical formation flight IAW the applicable NATOPS and ANTP 3-22.3-53.

Prerequisite. FORM-210.

3. Confined Area Landings (CAL)

a. Purpose. To review aircrew responsibilities during CALs and introduce CALs with multiple aircraft during day and night.

b. General

(1) A CCNSI is required on initial CAL-222/223.

c. Crew Requirement. CC, CC/CCUI or CC/AOUI. CAL-222 and CAL-223 require 2 HLL qualified aircrew if not an instructional flight.

d. Ground/Academic Training. Review of NATOPS procedures for CALs.

e. Flight Training. (4 Flights, 6.0 Hours).

CAL-220 1.5 1 CH-53

Goal. Introduce and practice CALs using tactical approaches.

Requirement

Discuss:
CALs.
CRM.
Lookout doctrine.
Aircraft clearances.
Terrain suitability.
Drift correction.

Introduce:
Tactical Approaches.

Performance Standards. Perform CALs utilizing tactical approaches IAW the applicable NATOPS and ANTP 3-22.3-53.

Range Requirements. CAL/MAL site.

CAL-221 1.5 R,SC 2 CH-53

Goal. Introduce and practice tactical section CALs.

Requirement

Discuss:

CALs.
CRM.
Lookout doctrine.
Aircraft clearances.
Terrain suitability.
Drift correction.
Tactical approaches.

Introduce:

Section takeoffs, approaches, and landings to a CAL site.

Performance Standards. Demonstrate performance of aircrew duties during tactical section CALs IAW the applicable NATOPS and ANTP 3-22.3-53.

Prerequisite. FORM-210, CAL-220.

Range Requirements. CAL/MAL site.

CAL-222

1.5 1 CH-53 NS

Goal. Introduce and practice CALs using NS.

Requirement

Instructor:

CCNSI required for initial qualification and re-qualification.

Review:

CALs.
CRM.
Lookout doctrine.
Aircraft clearances.
Terrain suitability.
Drift correction.
Dark adaptation.
NS failures.
Aircraft lighting.

Discuss:

Depth perception.
Possible reduced visibility.
Obstacle clearance.

Performance Standards. Practice aircrew responsibilities during night CALs while using NS IAW with applicable NATOPS.

Prerequisite. CAL-220.

Range Requirements. CAL/MAL site.

CAL-223

1.5 R,SC 2 CH-53 NS

Goal. Introduce and practice section CALs using NS.

Requirement

Instructor:
CCNSI required for initial qualification and re-qualification.

Review:
NS CALs.
CRM.
Lookout doctrine.
Aircraft clearances.
Terrain suitability.
Drift correction.
Dark adaptation.
NS failures.
Aircraft lighting.
Depth perception.
Possible reduced visibility.
Obstacle clearance.

Introduce:
NS Section CALs.

Performance Standards. Practice aircrew responsibilities during NS section CALs IAW applicable NATOPS.

Prerequisite. FORM-211, CAL-221, CAL-222.

Range Requirements. CAL/MAL site.

4. Terrain Flight (TERF)

a. Purpose. To enhance aircrew responsibilities and lookout doctrine with TERF maneuvers/navigation and introduce section maneuvering in the day and night TERF environment.

b. General

(1) Currency restrictions per T&R Program Manual. Aircrew is considered TERF qualified at the completion of TERF-231.

(2) A CCTERFI is required for initial TERF-230/231 and a CCNSI is required for initial TERF-232/233.

c. Crew Requirement. CC/AO, CC/CCUI or CC/AOUI. TERF-232 and TERF-233 require 2 HLL qualified aircrew if not an instructional flight.

d. Ground/Academic 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.

e. Flight Training. (4 Flights, 6.0 Hours).

TERF-230 1.5 1 CH-53

Goal. Review maneuvers and clearance while flying in a TERF environment.

Requirement

Instructor:
CCTERFI required for initial qualification and re-qualification.

Review:
Low level and contour flight.

Discuss:
Crew comfort levels.
CRM.
Lookout doctrine.
Terminology.
ICS procedures.
Obstacle clearance.
Emergency procedures.
TERF maneuvers.
Navigation.

Performance Standards. Perform TERF maneuvers and maintain aircraft clearance IAW the applicable NATOPS and ANTP 3-22.3-53.

Range Requirements. Approved TERF maneuver area/route.

TERF-231

1.5 R, SC 2 CH-53

Goal. Introduce maneuvers and clearance for a section of aircraft in the TERF environment.

Requirement

Instructor:
CCTERFI required for initial qualification and re-qualification.

Review:
FORM-210.
TERF-230.

Discuss:
Crew comfort levels.
CRM.
Lookout doctrine.
Terminology.
ICS procedures.
Aircraft clearance.
Multiple aircraft operations.

Performance Standards. Perform TERF maneuvers in a section while in the TERF environment IAW the applicable NATOPS and ANTP 3-22.3-53.

Prerequisite. FORM-210, and TERF-230.

Range Requirements. Approved TERF maneuver area/route.

TERF-232

1.5 1 CH-53 NS

Goal. Introduce maneuvers and clearance while flying in a TERF environment using NS.

Requirement

Instructor:

CCNSI required for initial qualification and re-qualification.

Review:

CAL-222.
TERF-230.

Discuss:

HLL NS considerations.
Aircraft lighting.
Crew comfort levels.
CRM.
Lookout doctrine.
Terminology.
ICS procedures.
Obstacle clearance.
Emergency procedures.

Performance Standards. Perform TERF maneuvers while in the TERF environment using NS in a HLL condition IAW applicable NATOPS and ANTP 3-22.3-53.

Prerequisite. TERF-230.

Range Requirements. Approved TERF maneuver area/route.

TERF-233

1.5 R,SC 2 CH-53 NS

Goal. Review maneuvers and clearance for a section of aircraft in the TERF environment using NS.

Requirement

Instructor:

CCNSI required for initial qualification and re-qualification.

Review:

CAL-223.
TERF-232.

Discuss:

HLL NS considerations.
Aircraft lighting.
Crew comfort levels.
CRM.
Lookout doctrine.
Terminology.
ICS procedures.
Aircraft clearance.
Emergency procedures.
Multiple aircraft operations.

Performance Standards. Perform TERF maneuvers for a section while in the TERF environment using NS in a HLL condition IAW the applicable NATOPS and ANTP 3-22.3-53.

Prerequisite. FORM-211, TERF-231 and TERF-232.

Range Requirements. Approved TERF maneuver area/route.

5. External Loads (EXT)

a. Purpose. To develop skills necessary for external loads in confined areas.

b. General

(1) Aircrew may fly these flights in conjunction with the pilot syllabus.

(2) A CCNSI is required for initial EXT-243/244.

(3) A CCTERFI is required for initial EXT-242.

c. Crew Requirement. CC/AO, CC/CCUI or CC/AOUI. EXT-243 and EXT-244 require 2 HLL qualified aircrew if not an instructional flight.

d. Ground/Academic Training. Aircrew should review MCRP 4-23_ Multiservice Helicopter Sling Load Manual for Basic Operations and Equipment.

e. Flight Training. (5 Flights, 7.5 Hours).

EXT-240 1.5 R,SC 1 CH-53

Goal. Practice single point externals.

Requirement

Review:
EXT-170.

Discuss:
Crew coordination.
External procedures.
HST considerations.
Standardized terminology.
Single point cargo hook system.
Cargo hook control panel.
Aircrew portable pendant control.
Cargo hook emergency release handle(CH-53D).
Static discharge precautions.
Load rigging.
Emergency cargo release.

Demonstrate:
Standardized terminology.
Cargo hook setup.
Hand and arm signals.

Performance Standards. Perform single point external hookups and releases with proficiency IAW applicable NATOPS. Execute

5 pickups and deliveries within 5 meters of intended point of delivery.

Prerequisite. CAL-220.

Range Requirements. Approved CAL/MAL site.

External syllabus support. HST, certified single point load.

EXT-241

1.5 R,SC 1 CH-53

Goal. Practice dual point external operations (53E).
Practice single point external operations (53D).

Requirement

Review:

EXT-172 (53E).
EXT-240.

Discuss:

Proper preflight of dual point system.
Types of slings.
Crew Coordination.
External procedures.
HST considerations.
Standardized terminology.
Dual point cargo hook system.
Cargo hook control panel.
Aircrew portable pendant control.
Cargo hook emergency release handle.
Static discharge precautions.
Load rigging.
Emergency cargo release.

Performance Standards. Perform dual point hookups and releases with proficiency IAW the applicable NATOPS. For CH-53D review performance standards for the EXT-240. Execute 5 pickups and deliveries within 5 meters of intended point of delivery.

Prerequisite. CAL-220.

Range Requirements. Approved CAL/MAL site.

External syllabus support. HST, certified dual point load.

EXT-242

1.5 R,SC 1 CH-53

Goal. Introduce and practice external operations in the TERF environment.

Requirement

Instructor:

CCTERFI required for initial qualification and re-qualification.

Review:
TERF-230.
EXT-240 and 241 as appropriate.

Discuss:
Emergency procedures.
Aircrew responsibilities during TERF flight.
Cargo pendant release procedures.
Varying hookup options.
Load length considerations for TERF flight.
Safety considerations.

Introduce:
Practice single or dual point external cargo carrying operations in a TERF environment.

Performance Standards. Perform external operations in the TERF environment IAW applicable NATOPS and ANTP 3-22.3-53. Maintain situational awareness with regards to load clearance while conducting TERF maneuvers. Minimum of 1 pickup and delivery required.

Prerequisite. CAL-220, TERF-230, EXT-240, and EXT-241.

Range Requirements. Approved CAL/MAL site. Approved TERF maneuver area/route.

External Syllabus Support. HST, certified load.

EXT-243

1.5 R, SC 1 CH-53 NS

Goal. Practice single point external operations utilizing NS.

Requirement

Instructor:
CCNSI required for initial qualification and re-qualification.

Review:
HLL NS considerations.
Safety precautions.
External cargo lighting patterns.

Use of Chem lights on external pendant and the external load.
Blowing debris.
Load rigging.
Obstacle clearance on approach to and departure from the drop zone.

Discuss:
CRM.
Flight with single point external loads.
Load stability.
Standardized terminology.
HLL NS considerations.
Load rigging.

Performance Standards. Demonstrate proficiency of single point external operations using NS in a HLL condition as

outlined in the applicable NATOPS. Execute 5 pickups and deliveries within 5 meters of intended point of delivery.

Prerequisite. CAL-222 and EXT-240.

Range Requirements. Approved CAL/MAL site.

External Syllabus Support. HST, certified single point load.

EXT-244

1.5 R,SC 1 CH-53 NS

Goal. Practice dual point external operations utilizing NS (53E). Practice single point external operations utilizing NS (53D).

Requirement

Instructor:

CCNSI required for initial qualification and re-qualification.

Review:

Safety precautions.
External cargo lighting patterns.
Use of Chem lights on external pendant and the external load.
Blowing debris, rotor wash.
Load rigging.
Obstacle clearance on approach to and departure from the drop zone.

Discuss:

HLL NS considerations.
CRM.
Flight with dual point external loads.
Load stability.
Standardized terminology.
Load rigging.

Performance Standards. Demonstrate proficiency of dual point external operations using NS in a HLL condition IAW applicable NATOPS. Execute 5 pickups and deliveries within 5 meters of intended point of delivery.

Prerequisite. CAL-222 and EXT-241.

Range Requirements. Approved CAL/MAL site.

External Syllabus Support. HST, certified dual point load.

5. Field Carrier Landing Practice (FCLP)

a. Purpose. To develop procedures and CRM required for shipboard operations.

b. General. Discuss and become familiar with all aspects of shipboard operations and CRM applicable to the carrier qualification stage as described in the appropriate CH-53 NATOPS Flight Manual, NWP-42, the LHA/LPH/LHD NATOPS, and OPNAVINST 3710.7. Each event requires 5 FCLPs. A CCNSI is required for initial FCLP-273.

c. Crew Requirement. CC, CC/CCUI or CC/AOUI. FCLP-273 requires 2 qualified aircrew if not an instructional flight.

d. Flight Training. (3 Flights, 3.0 Hours).

FCLP-271 1.0 R 1 CH-53

Goal. Introduce day FCLPs.

Requirement

Discuss:

Shipboard operations.
Aircraft clearance.
CRM.
Hand and arm signals.
Safety procedures.
Ditching procedures.
Emergency procedures.

Introduce:

Procedures required for shipboard operations.

Performance Standards. Perform day FCLPs IAW appropriate shipboard NATOPS.

Prerequisite. CAL-220.

Range Requirements. Suitable FCLP pad.

External Syllabus Support. FCLP pad.

FCLP-272 1.0 1 CH-53 N*

Goal. Introduce night, unaided FCLPs.

Requirement

Discuss:

Nighttime procedures.
Shipboard lighting.
Shipboard operations.
Aircraft clearance.
CRM.
Hand and arm signals.
Safety procedures.
Ditching procedures at night.
Emergency procedures.

Introduce:

Procedures required for shipboard operations at night.

Performance Standards. Perform night unaided FCLPs IAW appropriate shipboard NATOPS.

Prerequisite. FCLP-271.

Range Requirements. Suitable FCLP pad.

External Syllabus Support. FCLP pad.

FCLP-273 1.0 R 1 CH-53 NS

Goal. Introduce NS FCLPs.

Requirement

Instructor:

CCNSI required for initial qualification and re-qualification.

Discuss:

NS considerations for appropriate light level.
Shipboard operations.
Shipboard lighting.
Aircraft clearance.
CRM.
Hand and arm signals.
Safety procedures.
Ditching procedures.
Emergency procedures.

Introduce:

Procedures required for shipboard operations in the NS environment.

Performance Standards. Perform NS FCLPs IAW appropriate shipboard NATOPS.

Prerequisite. CAL-222 and 320 as appropriate for ambient light level, and FCLP-271.

Range Requirements. Suitable FCLP pad.

External Syllabus Support. FCLP pad.

6. Air-to-Ground (AG)

a. Purpose. To develop procedures required to provide fire on targets of opportunity.

b. General

(1) Aerial gunnery qualification lectures and initial instructional flights must be conducted by a WTI or AGI.

(2) At least 1 aircrew shall possess a current copy of NAVAIR 01-230HM-75-17 Conventional Weapons Checklist.

(3) An AGI is required for initial flight or when aircrew are not designated aerial gunners.

(4) At the completion of this stage, aircrew will demonstrate knowledge of weapons systems and ordnance delivery with crew served weapons.

c. Crew Requirement. CC/AGI/AGUI.

d. Ground 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.

e. Flight Training. (2 Flights, 2.0 Hours).

AG-280

1.0

R 1 CH-53

Goal. Introduce aerial gunnery training with the .50 Cal Machine Gun.

Requirement

Instructor:
AGI required for initial qualification and re-qualification.

Discuss:

Use and application of crew served weapons checklist.
Fire discipline.
Aiming techniques.
Crew coordination.
Fire control voice commands/hand and arm signals.
Range considerations.
Weapon capabilities.
Firing in landing profile.
Weapon malfunctions.
Burst rates.

Introduce:

Preflight.
Safety procedures associated with ordnance evolutions.
Ordnance loading.
Burst Rates.
Flight profiles (running, diving, hovering).
Post-flight.

Performance Standards. Operate .50 Cal Machine Gun safely IAW crew served weapons checklist and ANTTP 3-22.3-53. Aircrew shall demonstrate positive weapons control and effective fire on pre-briefed targets as stated in the ANTTP 3-22.3-53.

Prerequisites. TERF-230.

Ordnance. 500 rds .50 Cal. per crew member and 2 .50 Cal Machine Guns.

Range Requirements. Live fire AG range (.50 Cal).

AG-281

1.0

R 2 CH-53

Goal. Introduce day AG with the .50 Cal Machine Gun within a section.

Requirement

Instructor:
AGI required for initial qualification and re-qualification.

Review:

AG-280.

Discuss:

Crew responsibilities.
Section responsibilities.

Sectors of fire.
Target hand-off.

Introduce:

Limited sectors of fire.
Fire discipline within a section.
Weapons Conditions (Weapons Free, Tight, Hold).

Practice:

Firing on prebriefed targets.
Crew coordination.
Firing in different flight profiles, (i.e. diving,
hovering, etc.).
Burst rates.

Performance Standards. Operate .50 Cal Machine Gun safely IAW crew served weapons checklist and ANTP 3-22.3-53 within a section. Aircrew shall demonstrate positive weapons control in a section and effective fire on pre-briefed targets as stated in the ANTP 3-22.3-53.

Prerequisites. TERF-231 and AG-280.

Ordinance. 500 rds .50 Cal. per crew member and 2 .50 Cal Machine Guns.

Range Requirements. Live fire AG range (.50 Cal).

7. Tactics (TAC)

a. Purpose. To introduce aircrew responsibilities for tactical missions.

b. General

- (1) Completion of TAC-291 satisfies the requirement for NSQ HLL.
- (2) A CCNSI is required on initial TAC-291.
- (3) If rounds are utilized, an AGI is required for initial flights or when the aircrew are not designated aerial gunners.

c. Crew Requirement

- (1) If rounds are utilized CC/AGI/AGUI.
- (2) If rounds are not utilized CC/AO, CC/CCUI or CC/AOUI.
- (3) If rounds are utilized, TAC-291 requires 2 HLL/AG qualified aircrew if not an instructional flight.

d. Ground 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. Review ANTP 3-22.3-53 applicable chapters.

e. Flight Training. (2 Flights, 4.0 Hours).

TAC-290 2.0 2 CH-53

Goal. Introduce aircrew responsibilities during a section tactical operation.

Requirement

Review:

INT-200 and INT 201.
FORM-210.
CAL-221.
TERF-231.

Discuss:

Weather considerations.
Scanning techniques (open terrain, dense vegetation).
Navigation.
No comm lead changes.
Procedures for downed aircrew escorts.

Introduce:

Lookout Doctrine.
Scanning techniques.
Egress considerations with .50 Cal Machine Guns mounted.

Performance Standards. Demonstrate basic knowledge in low threat environment as stated in ANTTP 3-22.3-53. Demonstrate effective scan techniques as stated in ANTTP 3-22.3-53.

Prerequisite. CAL-221 and TERF-231.

Ordnance. Two .50 Cal Machine Guns and optional .50 Cal rounds.

External Syllabus Support. Ordnance request for weapons.

TAC-291 2.0 R 2 CH-53 NS

Goal. Introduce aircrew responsibilities during tactical operations with multiple aircraft using NS.

Requirement

Instructor:

CCNSI required for initial qualification and re-qualification.

Review:

TAC-290.

Discuss:

Taxi drop of internal cargo.
Paradrop operations.
Embarking/debarking of troops using NS.
Comfort level.

Introduce:

Lookout doctrine.
Scanning techniques.
Egress considerations with .50 Cal Machine Guns mounted.

Performance Standards. Demonstrate basic knowledge in low threat environment on NS as stated in ANTPP 3-22.3-53. Demonstrate effective scan techniques on NS as stated in ANTPP 3-22.3-53.

Prerequisite. CAL-223, TERF-233, and TAC-290.

Ordinance. Two .50 Cal Machine Guns and optional .50 Cal rounds.

External Syllabus Support. Ordnance request for weapons.

233. CORE SKILL ADVANCED PHASE. Aircrew undergoing instruction in this phase must have completed the MAWTS-1 Course Catalog Academic Support Package lectures applicable to this phase of training prior to conducting NS events. NS rules of conduct will be per T&R Program Manual. Aircrew shall fly all NS events listed below under ambient light conditions of below .0022 LUX. An aircrew under instruction is NSQ LLL (able to transport troops) when the following 5 events have been completed: CAL-320, CAL-321, TERF-330, TERF-331, and TAC-391. CAL-320, CAL-321, TERF-330, TERF-331, EXT-342 and TAC-391 must be flown under LLL conditions. These flights require a CCNSI for initial qualification. Aircrew may fly all other NS events in this phase under HLL or LLL conditions.

1. Confined Area Landings (CAL)

- a. Purpose. To conduct CALs in LLL conditions (below .0022 LUX).
- b. General. A CCNSI is required on initial flights.
- c. Crew Requirement. CC/AO, CC/CCUI or CC/AOUI. CAL-320 and CAL-321 require 2 LLL qualified aircrew if not an instructional flight.
- d. Prerequisite. Crew member under instruction must be NSQ HLL with EXT-244 complete.
- e. Flight Training. (2 Flights, 3.0 Hours).

CAL-320 1.5 1 CH-53 NS

Goal. Perform NS low work and CALs during LLL conditions.

Requirement

Instructor:

CCNSI required for initial qualification and re-qualification.

Review:

- CALs.
- CRM.
- Lookout doctrine.
- Aircraft clearances.
- Terrain suitability.
- Drift correction.
- Dark adaptation.
- NS failures.
- Aircraft lighting.

Discuss:

- LLL NS considerations.

Comfort levels.
CRM.

Performance Standards. Practice aircrew responsibilities during CALs using NS in a LLL condition IAW applicable NATOPS.

Prerequisite. NSQ HLL and EXT-244.

Range Requirements. CAL/MAL site.

CAL-321 1.5 R,SC 2 CH-53 NS

Goal. Develop proficiency in section CAL operations using NS during LLL conditions.

Requirement

Instructor:
CCNSI required for initial qualification and re-qualification.

Review:
CALs.
CRM.
Lookout doctrine.
Aircraft clearances.
Terrain suitability.
Drift correction.
Dark adaptation.
NS Failures.
Aircraft lighting.

Discuss:
LLL NS considerations.
Comfort levels.
CRM.

Performance Standards. Demonstrate proficiency of aircrew responsibilities during CALs using NS in a LLL condition IAW the applicable NATOPS.

Prerequisite. CAL-320.

Range Requirements. CAL/MAL site.

2. Terrain Flight (TERF)

a. Purpose. To develop TERF crew coordination skills in the night environment. Develop proficiency in TERF using NS in LLL conditions.

b. General

- (1) Currency requirements per T&R Program Manual.
- (2) A CCNSI is required on initial flights.

c. Crew Requirement. CC/AO, CC/CCUI or CC/AOUI. TERF-330 and TERF-331 require 2 LLL qualified aircrew if not an instructional flight.

d. Ground 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.

e. Flight Training. (2 Flights, 3.0 Hours).

TERF-330 1.5 1 CH-53 NS

Goal. Review maneuvers and clearance while flying in a TERF environment using NS in LLL conditions.

Requirement

Instructor:
CCNSI required for initial qualification and re-qualification.

Review:
TERF-232.
CAL-320.

Discuss:
LLL NS considerations.
Aircraft lighting.
Crew comfort levels.
CRM.
Lookout doctrine.
Terminology.
ICS procedures.
Obstacle clearance.
Emergency procedures.

Performance Standards. Perform TERF maneuvers while in the TERF environment using NS in a LLL condition IAW applicable NATOPS and ANTP 3-22.3-53.

Prerequisite. CAL-320.

Range Requirements. Approved TERF maneuver area/route.

TERF-331 1.5 R,SC 2 CH-53 NS

Goal. Review maneuvers and clearance for an aircraft section in the TERF environment using NS in LLL conditions.

Requirement

Instructor:
CCNSI required for initial qualification and re-qualification.

Review:
CAL-321.
TERF-330.

Discuss:
LLL NS considerations.
Aircraft lighting.
Crew comfort levels.
CRM.
Lookout doctrine.
Terminology.

ICS procedures.
Aircraft clearance.
Emergency procedures.
Multiple aircraft operations.

Performance Standards. Perform TERF maneuvers for a section while in the TERF environment using NS in a LLL condition IAW applicable NATOPS and ANTP 3-22.3-53.

Prerequisite. CAL-321 and TERF-330.

Range Requirements. Approved TERF maneuver area/route.

3. External Loads (EXT)

a. Purpose. To develop proficiency with heavy lift external loads from confined areas in the TERF environment.

b. General

(1) Aircrew may fly these flights in conjunction with the pilot syllabus. When practical, flights should practice externals with heavy lift FMF equipment.

(2) EXT-342 and 343 require a CCNSI for initial qualification. EXT-342 must be flown under LLL conditions.

(3) Transport loads either single or dual point, as appropriate.

c. Crew Requirement. CC/AO, CC/CCUI or CC/AOUI. EXT-342 and EXT-343 require 2 NSQ aircrew if not an instructional flight.

d. Ground Training. Consult FMFRP 5-31 VOL. I-III (Basic Operation/Equipment and Single Dual Point Hook Procedures), FMFRP 5-31, Vol. 1, Multi-Service Helicopter External Air Transport Manual and applicable series NATOPS.

e. External Syllabus Support. HST, certified load.

f. Flight Training. (2 Flights, 3.0 Hours).

EXT-342 1.5 R,SC 1 CH-53 NS

Goal. Introduce external operations in LLL conditions, dual point preferred for CH-53E.

Requirement

Instructor:
CCNSI required for initial qualification and re-qualification.

Review:
CAL-320.
EXT-243 and 244 as appropriate.
Safety precautions.
External cargo lighting patterns.
Use of Chem lights on external pendant and the external load.
Blowing debris.

Load rigging.
Obstacle clearance on approach to and departure from the drop zone.

Discuss:

LLL NS considerations.
CRM.
Flight with dual point external loads (if required).
Load stability.
Standardized terminology.
Load rigging.

Introduce:

External operations using NS in LLL conditions.

Performance Standards. Demonstrate proficiency of external operations using NS in a LLL condition IAW applicable NATOPS.

Prerequisite. CAL-320.

Range Requirement. Approved CAL/MAL site.

External Syllabus Support. HST, certified load.

EXT-343

1.5 R, SC 1 CH-53 NS

Goal. Introduce external operations in the TERF profiles using NS in any ambient light level condition.

Requirement

Instructor:

CCNSI required for initial qualification and re-qualification.

Review:

EXT-242.
CAL-320.
TERF-330.
Safety precautions.
External cargo lighting patterns.
Use of Chem lights on external pendant and the external load.
Blowing debris.
Load rigging.
Obstacle clearance on approach to and departure from the drop zone.

Discuss:

HLL or LLL NS considerations as applicable.
CRM.
Flight with dual point external loads (if required).
Load stability.
Standardized terminology.
Load rigging.
Aircraft clearances.
Load clearances.

Introduce:

External operations using NS in the TERF environment.
External operations while operating in the TERF environment.

Performance Standards. Demonstrate proficiency of external operations using NS while operating in the TERF environment as outlined in the applicable NATOPS and ANTP 3-22.3-53.

Prerequisite. EXT-242 (EXT-244 if HLL or EXT-342 if LLL).

Range Requirements. Approved CAL/MAL site.

External Syllabus Support. HST, certified load.

4. Ground Threat Reaction (GTR)

a. Purpose. To introduce and develop proficiency in using ASE and tactics to defeat non-radar ground-based threats.

b. General

(1) Aircrew shall conduct this stage against non-radar ground-based threats. Utilization of a range with threat simulation systems (e.g., Smokey SAMs, target lights, handheld pyrotechnics, and AAR-47 stimulator) will greatly enhance aircrew training.

(2) WTI or DMI required for initial qualification and re-qualification. NSI required for initial qualification and re-qualification if utilizing NS.

c. Crew Requirement. CC/AO, CC/CCUI or CC/AOUI. If utilizing NS, GTR-350 requires 2 qualified aircrew in the appropriate light level if not an instructional flight.

d. Ground Training

(1) 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.

(2) Review applicable chapters of ANTP 3-22.3-CH53 for non-radar IR and AAA countermeasures, ASE, and tactical formation maneuvering. Consult the AFTP 3-1 for threat systems information.

e. Flight Training. (1 Flight, 1.0 Hour).

GTR-350 1.0 R 2 CH-53 (NS)

Goal. Conduct ground threat reactions and ASE familiarization.

Requirement

Instructor:

CCWTI or CCDMI required for initial qualification and re-qualification. CCNSI required if utilizing NS when both aircrew are not NSQ for the appropriate light level.

Discuss:

Operation of applicable ASE gear.
The strengths and weaknesses of each ASE system versus non-radar ground-based threats.
CRM.
Different tactical IR countermeasures.
Tactical maneuvering to counter the threat.
Inter- and intra-aircraft communications and standard terminology.
Threat identification and rules of engagement.
Lookout doctrine.
Low altitude emergencies.

Introduce:

Tactical maneuvering and ASE employment to counter the threat.

Review:

TACFORM maneuvering.
TERF.

Performance Standards. Demonstrate basic knowledge of attack warning against various non-radar ground-based threats. Utilize standard terminology in inter-aircraft communications. Demonstrate working knowledge of ASE.

Prerequisite. TERF-231. If flown under HLL conditions, TERF-233. If flown under LLL conditions, TERF-331.

Ordnance. 60 flares and 2 .50 Cal Machine Guns.

Range Requirements. Expendable capable range. Approved TERF maneuver area/route.

External Syllabus Support. Ground-based non-radar threat simulators (e.g., Smokey SAMs, AAR-47 stimulator, handheld pyrotechnics, target lights).

5. Air-to-Ground Gunnery and Qualification (AG)

a. Purpose. To demonstrate proficiency in delivering fire on targets of opportunity at night while using NS.

b. General

(1) Completion of this stage is the minimum requirement for aerial gunnery training. AGUI must complete the aerial gunnery evaluation event, AG-381 and be designated by the commanding officer prior to firing without an AGI.

(2) AG-381 certifies the AGUI as an aerial gunner with the respective weapon. Aircrew may be designated an aerial gunner by the commanding officer after completing AG-381.

(3) Aircrew may conduct these events in either HLL or LLL conditions and should be NSQ in the appropriate light level condition. If aircrew are not NSQ for appropriate light level a CCNSI is required.

(4) Aerial gunnery lectures and initial instructional flights must be conducted by a WTI or AGI.

(5) An AGI CCNSI is required for initial flights.

(6) At least 1 aircrew shall possess a current copy of NAVAIR 01-230HM-75-17 Conventional Weapons Checklist.

c. Crew Requirement. CC/AO or CC/AGI/AGUI. AG-380 and AG-381 require 2 NSQ aircrew if not an instructional flight.

d. Ground Training. Review appropriate chapters of the ANTP 3-22.3-53. 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.

e. Flight Training. (2 Flights, 2.0 Hours).

AG-380 1.0 R 1 CH-53 NS

Goal. Introduce aerial gunnery training with the .50 Cal Machine Gun while using NS.

Requirement

Instructor:
CCNSI CCAGI required for initial qualification and re-qualification.

Review:
AG-280.

Discuss:
Muzzle Flash.
Sighting techniques.
LASER safety/employment.
Cabin configuration.
Burst rates.

Introduce:
Aiming techniques on NS.
Weapons control on NS.
Lighting used with weapon operation.

Performance Standards. Operate .50 Machine Gun safely IAW crew served weapons checklist and ANTP 3-22.3-53 while utilizing NS. Aircrew shall demonstrate positive weapons control during night environment and demonstrate effective fire on pre-briefed targets as stated in the ANTP 3-22.3-53.

Prerequisite. AG-280 (TERF-232 or TERF-330).

Ordnance. 500 rds .50 Cal per crew member and 2 .50 Cal Machine Guns.

Range Requirements. Live fire AG range (.50 Cal). Laser approved range.

AG-381 1.0 R 2 CH-53 NS

Goal. Introduce aerial gunnery training with the .50 Cal Machine Gun while using NS within a section.

Requirement

Instructor:
CCNSI CCAGI required for initial qualification and re-qualification.

Review:
AG-380.

Discuss:
Crew responsibilities.
Section responsibilities.
Sectors of fire.
Target hand-off.
Weapons Conditions (Weapons Free, Tight, Hold).

Introduce:
Aiming techniques in section on NS.
Weapons control in section on NS.

Practice:
Aiming techniques on NS.
Weapons control on NS.
Lighting used with weapon operation.
Weapons employment/delivery.

Performance Standards. Aircrew will demonstrate proficiency implementing all aspects of the crew served weapons checklist. Aircrew will demonstrate effective and safe usage of the .50 Cal Machine Gun IAW the ANTTP 3-22.3-53.

Prerequisite. AG-380 (TERF-233 or TERF-331).

Ordnance. 500 rds .50 Cal. per crew member and 2 .50 Cal Machine Guns.

Range Requirements. Live fire AG range (.50 Cal). Laser approved range.

6. Tactics (TAC)

a. Purpose. To develop aircrew responsibilities during tactical operations in a low to medium threat environment.

b. General

(1) All mission briefs require an intelligence brief. To the greatest extent possible incorporate the employment of escort aircraft (fixed or rotary wing), the employment of the ALE and the APR-39, the .50 Cal

Machine Gun, and use of a NAVAIR approved gas masks. Aircrew shall conduct these flights under the standards required in MCO 3501.4, MCCRES, Volume III, Marine Heavy Helicopter Squadrons and/or MCO 3501.8 MCCRES, Volume IX, Special Operations.

(2) A CCNSI is required for initial TAC-391. TAC-391 must be flown under LLL conditions.

(3) NBC-460 required if a NAVAIR approved gas mask is used.

c. Crew Requirements. CC/AG, CCAGI/CCUI. TAC-391 requires 2 LLL qualified aircrew if not an instructional flight.

d. Ground Training Requirements. 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.

e. Flight Training. (2 Flights, 4.0 Hours).

TAC-390 2.0 R, 2+ CH-53

Goal. Introduce and practice aircrew responsibilities during tactical operations with multiple aircraft.

Requirement

Review:

Loading/securing/unloading of cargo/vehicles/troops.

Discuss:

Taxi drop of internal cargo.
Paradrop operations.
Embarking/debarking of troops.
External Operations.

Practice:

Responsibilities during a tactical operation.

Performance Standard. Demonstrate proficiency in low to medium threat environment as stated in ANTP 3-22.3-53.

Prerequisites. TAC-290. All aircrew should be aerial gunner qualified. An AGI is required if aircrew are not aerial gunners.

Ordnance. 1000 rounds of .50 Cal, 30 chaff, 30 flares and 2 .50 Cal Machine Guns.

External Syllabus Support. Range/Ordnance/Escort request if utilized.

TAC-391 2.0 R 2+ CH-53 NS

Goal. Practice aircrew responsibilities during tactical operations at night with multiple aircraft in LLL conditions utilizing NS.

Requirement

Instructor:

CCNSI required for initial qualification and re-qualification.

Review:
TAC-291.

Discuss:
Taxi drop of internal cargo.
Paradrop operations.
Differences between day and night operations.
Embarking and debarking of troops at night.
External operations.
Crew comfort.
Crew coordination.

Practice:
Aircrew responsibilities during a tactical operation at night in LLL conditions on NS.

Performance Standard. Demonstrate proficiency in low to medium threat environment in LLL conditions on NS as stated in ANTP 3-22.3-53.

Prerequisite. TERF-331 and TAC-390. All aircrew should be aerial gunners. An AGI CCNSI is required if aircrew are not aerial gunner qualified.

Ordinance. 1000 rounds of .50 Cal, 30 chaff, 30 flares and 2 .50 Cal Machine Guns.

Range Requirements. Live fire AG range (.50 Cal). Laser approved range.

External Syllabus Support. Escort request if utilized.

234. CORE SKILL PLUS PHASE

1. Helicopter Insertion/Extraction Techniques (HIE)

a. Purpose. To develop proficiency with insertion/extraction methods required in executing special missions by emphasizing rappelling, fast-rope, Special Insertion/Extraction (SPIE), helo casting, and aerial delivery.

b. General. The CC shall conduct a brief with the specific team leader, then the entire team prior to take off to discuss mission requirements and aircraft safety procedures. An NSI is required for NS initial flights.

c. Crew Requirement. CC/AO, CC/CCUI or CC/ACUI.

d. Ground Training Requirements

(1) 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.

(2) Aircrew shall be NSQ for appropriate light level conditions and qualified to carry troops per T&R Program Manual in order to conduct HIE-400.

e. Flight Training. (3 Flights, 3.0 Hours).

HIE-400 1.0 R,SC 1 CH-53 (NS)

Goal. Introduce procedures for tactical insertion and/or extraction of a ground force via rappelling, fast-rope or SPIE.

Requirement

Instructor:
CCNSI required for NS initial qualification and re-qualification.

Discuss:
NS considerations if applicable.
CRM.
Safety procedures.
Hand and arm signals.
Obstacle clearance.
Associated equipment.
Emergency procedures.

Introduce:
Tactical insertions.
Techniques for inserting personnel by fast-rope.
Rappelling.
SPIE rig.

Performance Standards. Perform tactical insertion and/or extraction of a ground force via rappelling, fast-rope or SPIE IAW applicable NATOPS and ANTPP 3-22.3-53.

Prerequisite. CAL-220 (TAC-291 or TAC-391).

External Syllabus Support. Fast rope bar.

HIE-401 1.0 R,SC 1 CH-53

Goal. Introduce procedures for tactical insertion helocast.

Requirement

Instructor:
CCNSI required for NS initial qualification and re-qualification.

Discuss:
CRM.
Safety procedures.
Hand and arm signals.
Obstacle clearance.
Associated equipment.
Emergency procedures.

Introduce:
Techniques for inserting personnel by helocast.

Performance Standards. Demonstrate procedures for a tactical insertion via helocast IAW applicable ANTPP 3-22.3-53.

Prerequisite. TERF qualified.

HIE-402 1.0 R 1 CH-53 (NS)

Goal. Introduce procedures for tactical insertion via paraops.

Requirement

Instructor:
CCNSI required for NS initial qualification and re-qualification.

Discuss:
NS considerations if applicable.
CRM.
Safety procedures.
Hand and arm signals.
Ground signals.
Obstacle clearance.
Associated equipment.
Emergency procedures.

Introduce:
Techniques for inserting personnel by paraops.

Performance Standards. Perform procedures for tactical insertion via paraops IAW applicable ANTP 3-22.3-53.

Prerequisite. CAL-220 (TAC-291 or TAC-391).

2. Internal Loads (INT) (CH-53E)

a. Purpose. To introduce aircrew duties in loading, securing, unloading, internal procedures and use of the Tactical Bulk Fuel Delivery System (TBFDS).

b. General

(1) Aircrew may fly these flights in conjunction with any stage of the pilot syllabus.

(2) Instructor shall be a CCNSI if NS are used on initial flight.

c. Crew Requirement. CC/AO, CC/CCUI, CC/AOUI. If NS are utilized, INT-410 requires 2 qualified aircrew in the appropriate light level condition if not an instructional flight.

d. Ground/Academic Training. Study the A1-H53BE-GLG-000 (Cargo Loading Manual), NATOPS Flight Manual, and helicopter loading and equipment storage. 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.

e. Flight Training. (1 Flight, 1.5 Hours).

INT-410 1.5 R SC 1 CH-53E (NS)

Goal. Review internal procedures and introduce use of the TBFDS.

Requirement

Instructor:
CCNSI required if NS are utilized for initial qualification and re-qualification.

Review:
INT-200 and INT-201.

Discuss:
Installation considerations for TBFDS.
Procedures for refueling other types of aircraft and/or vehicles.
Rapid Ground Refueling/FARP procedures to include preflight, taxiing aircraft, mechanical configuration, lighting configurations, post flight and clean up.
Fire fighting equipment and procedures for particular TBFDS evolution.

Introduce:
Proper restraint system and loading scenarios for different tank setups and fuel line configuration.

Performance Standards. Demonstrate knowledge of TBFDS setup and refueling operations as outlined in the ANTPP 3-22.3-53.

Prerequisite. INT-200 and CAL-220 (TAC-291 or TAC-391).

External Syllabus Support. Ground or RW assets to refuel.

3. Ground Threat Reaction (GTR)

a. Purpose. To introduce aircrew responsibilities during EW tactics in a medium threat environment. Upon completion of this stage aircrew should have an understanding of the maneuvers and employment techniques necessary to counter a low altitude surface-to-air radar threats.

b. General

(1) The use of an APR-39 trainer or WST simulator will aid in preparing aircrew prior to flight.

(2) WTI or DMI required for initial qualification and re-qualification. NSI required for initial qualification and re-qualification if utilizing NS.

c. Crew Requirement. CC/AO, CC/CCUI or CC/AOUI. If NS are utilized, GTR-450 requires 2 qualified aircrew in the appropriate light level condition if not an instructional flight.

d. Ground/Academic Training. Aircrew under instruction will be familiar with procedures outlined in the helicopter DM Guide and should have completed academic instruction on the use of ASE gear. 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.

e. Flight Training. (1 Flight, 1.0 Hour).

GTR-450 1.0 R 2 CH-53 (NS)

Goal. Introduce and practice aircrew responsibilities.
Practice basic operations and procedures for ASE gear.

Requirement

Instructor:

CCWTI or CCDMI required for initial qualification and re-qualification. CCNSI required if utilizing NS when both aircrew are not NSQ for the appropriate light level.

Discuss:

ASE gear.
CRM.
Section tactics.
Low altitude emergencies.
Use of RADAR horizons and RADAR masking techniques as they relate to specific air defense systems.

Introduce:

RADAR guided threats on EW range if available.
GTR while dispersing chaff and flares.

Performance Standards. Demonstrate basic knowledge of Attack Warning and helicopter tactics against a low altitude surface-to-air radar threats IAW the ANTP 3-22.3-53.

Prerequisite. TERF-231.

Ordinance. 30 chaff, 30 flares and 2 .50 Cal Machine Guns.

Range Requirements. Expendable capable range. TERF maneuver area/route.

External Syllabus Support. Ground Emitter.

4. Defensive Measures (DM)

a. Purpose. To introduce aircrew responsibilities during section DM against helicopter and fixed-wing aggressor aircraft. Upon completion of this stage the aircrew should have an understanding of the maneuvers and employment techniques necessary to counter air-to-air threat.

b. General. A designated CCDMI is required on initial events.

c. Crew Requirement. CC/AO, CC/CCUI or CC/AOUI.

d. Ground/Academic Training. Aircrew should be familiar with procedures outlined in the helicopter DM Guide and should have completed academic instruction on the use of DECM equipment. 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.

e. Flight Training. (2 Flights, 2.0 Hour).

DM-451 1.0 R 2 CH-53

Goal. Introduce and practice aircrew responsibilities as a section against an adversary helicopter.

Requirement

Instructor:
CCDMI required for initial qualification and re-qualification.

Discuss:
Lookout doctrine.
Attack Warning.
Standard terminology.
Section maneuvering.
CRM.
Aircraft limitations.

Introduce:
Section helicopter DM against an adversary helicopter attacking from prebriefed and unknown locations.

Performance Standards. Demonstrate knowledge of Attack Warning and tactical maneuvers as stated in the MAWTS-1 DM Manual.

Prerequisite. TERF-231.

Ordinance. 30 flares and 2 .50 Cal Machine Guns.

Range Requirements. Expendable capable range. TERF maneuver area/route.

External Syllabus Support. Rotary wing aggressor.

DM-452

1.0 R 2 CH-53

Goal. Introduce and practice aircrew responsibilities in a section against a fixed wing adversary.

Requirement

Instructor:
CCDMI required for initial qualification and re-qualification.

Discuss:
Fixed wing attack.
Tactical maneuvers.

Practice:
Section helicopter DM against a fixed wing adversary attacking from prebriefed and unknown locations.

Performance Standards. Demonstrate proficiency of Attack Warning and tactical maneuvers as stated in the MAWTS-1 DM Manual.

Prerequisite. TERF-231.

Ordinance. 30 flares and 2 .50 Cal Machine Guns.

Range Requirements. Expendable capable range. TERF maneuver area/route.

External Syllabus Support. Fixed wing aggressor.5. Nuclear, Biological, and Chemical (NBC)

a. Purpose. To conduct flight operations while wearing NBC protective equipment.

b. General

(1) Aircrew may fly this event during the FAM, CAL, TAC, or NBC stage of the pilot syllabus. For the safe execution of initial NBC flights, 1 pilot and 1 aircrew shall remain unmasked.

(2) If NS are utilized, a CCNSI is required on initial flight.

c. Crew Requirement. CC/AO, CC/CCUI or CC/AOUI. If NS are utilized, NBC-460 requires 2 qualified aircrew in the appropriate light level condition if not an instructional flight.

d. Ground Training

(1) Discuss wearing of the NBC defense suit, mask, hood, gloves and boots. Introduce proper maintenance and serviceability checks on equipment, emphasizing donning of equipment.

(2) Discuss physiological factors associated with flying while wearing NBC protective equipment.

(3) 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.

e. Flight Training. (1 Flight, 1.0 Hour).

NBC-460 1.0 R 1 CH-53 (NS)

Goal. Introduce flight in a simulated NBC environment with a NAVAIR approved gas mask.

RequirementInstructor:

CCNSI required for NS initial qualification and re-qualification.

Discuss:

Chemical agents.

Biological agents.

Fatigue.

Distortion of vision while using the gas mask.

Demonstrate:

A portion of preflight wearing full NBC equipment.

Introduce:

Donning of the Chemical suit and gas mask.

Wearing of mask during taxi, low work takeoff and landings.

Performance Standards. Perform flight in a simulated NBC environment wearing NAVAIR approved gas masks IAW applicable NATOPS and ANTPP 3-22.3-53.

Prerequisite. CAL-220 (CAL-222 or CAL-320).

6. Carrier Qualification (CQ)

a. Purpose. To qualify aircrew in day and night shipboard operations.

b. General. Discuss and become familiar with all aspects of shipboard operations and CRM applicable to the carrier qualification stage as described in the appropriate NATOPS Flight Manual, NWP-42, the LHA/LPH/LHD NATOPS, and OPNAVINST 3710.7. Each flight requires 5 CQs. CQ-473 requires CCNSI for initial flight.

c. Crew Requirement. CC, CC/CCUI or CC/AOUI. CQ-473 requires 2 qualified aircrew in the appropriate light level condition if not an instructional flight.

d. Flight Training. (3 Flights, 4.5 Hours).

CQ-470 1.5 R 1 CH-53

Goal. Introduce day CQs.

Requirement

Review:
FCLP-271.

Discuss:
Shipboard operations.
Aircraft clearance.
CRM.
Hand and arm signals.
Safety procedures.
Ditching procedures.
Emergency procedures.

Performance Standards. Perform day CQs IAW appropriate shipboard NATOPS.

Prerequisite. FCLP-271.

External Syllabus Support. Helicopter capable ship.

CQ-471 1.5 1 CH-53 N*

Goal. Introduce night, unaided CQs.

Requirement

Review:
FCLP-272.
CQ-470.

Discuss:
Night procedures.
Shipboard lighting.

Shipboard operations.
Aircraft clearance.
CRM.
Hand and arm signals.
Safety procedures.
Ditching procedures at night.
Emergency procedures.
Night fixation.

Performance Standards. Perform night unaided CQs IAW appropriate shipboard NATOPS.

Prerequisite. FCLP-272 and CQ-470.

External Syllabus Support. Lighted helicopter capable ship.

CQ-472

1.5 R 1 CH-53 NS

Goal. Introduce NS CQs.

Requirement

Instructor:

CCNSI required for initial qualification and re-qualification.

Review:

FCLP-273.

CQ-471.

Discuss:

NS considerations for appropriate light level.

Shipboard operations.

Shipboard lighting.

Aircraft clearance.

CRM.

Hand and arm signals.

Safety procedures.

Ditching procedures.

Emergency procedures.

Performance Standards. Perform NS CQs IAW appropriate shipboard NATOPS.

Prerequisite. FCLP-273 and CQ-470.

External Syllabus Support. NS compatible helicopter capable ship.

7. Moving Target Gunnery (MTG)

a. Purpose. To introduce techniques and profiles in conducting MTG.

b. General

(1) Aircrews shall fly this stage IAW ANTTP 3-22.3-53. An AGI is required for initial flights or when the aircrew are not designated aerial gunners.

(2) At least 1 aircrew shall possess a current copy of NAVAIR 01-230HM-75-17 Conventional Weapons Checklist.

(3) If NS are utilized, a CCNSI is required on initial flight.

c. Crew Requirements. CC/AGI/AGUI. If NS are utilized, MTG-480 requires 2 qualified aircrew in the appropriate light level condition if not an instructional flight.

d. Ground/Academic Training. Review applicable chapters of ANTP 3-22.3-53. 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.

e. Flight Training. (1 Flight, 1.5 Hours).

MTG-480 1.5 R 1 CH-53 (NS)

Goal. Introduce MTG. Moving land target preferred method.
Requirement

Instructor:
AGI required for initial qualification and re-qualification or when aircrew are not designated aerial gunners. CCNSI required for NS initial qualification and re-qualification.

Review:
AG-281.

Discuss:
Aiming techniques.
Lead compensation.
Safety procedures.

Introduce:
Applicable MTG.
Shadow gunnery.
Towed banner.
Dart.
Moving land target.

Performance Standards. Demonstrate understanding of MTG as stated in the ANTP 3-22.3-53.

Prerequisite. Aircrew should be aerial gunner qualified. An AGI is required if aircrew are not aerial gunners. An AGI CCNSI is required if initial code is flown at night. AG-280.

Ordnance. 500 rds .50 Cal. per crew member and 2 .50 Cal Machine Guns.

Range Requirements. Live fire AG range (.50 Cal). Laser approved range if flown at night.

External Syllabus Support. Moving target request if applicable.

8. Tail Gunnery (TG)

a. Purpose. To conduct aerial gunnery training using the Ramp Mounted Weapons System (RMWS) for the Tail Gunner (TG).

b. General

(1) Individuals successfully completing TG-481, TG-482 and TG-483 may be issued a TG Qualification letter from the commanding Officer.

(2) Unqualified individuals [Tail Gunners Under Instruction (TGUI)] shall be supervised by a TGI.

(3) Individuals shall be NSQ for the appropriate light level condition. AG Qualification is a prerequisite for TG-481.

(4) Laser aiming devices are required for TG-483.

(5) Tail gunnery introductory lectures and initial instructional flights shall be conducted by a TGI.

(6) Completion of the entire AG course cannot be waived or deferred.

(7) At least 1 aircrew shall possess a current copy of NAVAIR 01-230HM-75-17 Conventional Weapons Checklist.

c. Crew Requirements. CC/AGI/AGUI/TG or CC/AGI/AGUI/TGUI/TGI.

d. Ground/Academic Instruction. 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.

e. Flight Training. (3 Flights, 3.0 Hours).

TG-481 1.0 R 1 CH-53

Goal. Introduce RMWS operational considerations, safety precautions, and crew coordination for conducting multi-crew served weapons operations.

Requirement

Instructor:
CCTGI required for initial qualification and re-qualification.

Review:
AG-280.

Discuss:
RMWS configuration.
Use and configuration of aircrew restraint system.
Crew Served Weapons Checklist.
Sectors of fire.
Aiming techniques.
Target hand-off.
Crew coordination.
Range considerations.
Weapon capabilities.
Firing in landing profile.
Weapon malfunctions.
Burst rates.

Introduce:

Preflight.
Safety procedures associated with ordnance evolutions.
Interlocking fields of fire.
Ordnance loading.
Burst rates.
Flight profiles (running, hovering, landing).
Post flight.

Performance Standards. Operate .50 Cal RMWS safely IAW crew served weapons checklist and ANTP 3-22.2-53. Aircrew shall demonstrate positive weapons control and effective fire on pre-briefed targets as stated in the ANTP 3-22.2-53.

Prerequisites. Aerial gun qualified.

Ordnance. 1500 rounds .50 Cal and 3 .50 Cal Machine Guns.
500 rounds per weapon.

Range Requirements. Live fire AG range (.50 Cal).

TG-482

1.0 R 2 CH-53

Goal. Practice RMWS employment during a day section aerial gunnery flight.

Requirement

Instructor:
CCTGI required for initial qualification and re-qualification.

Review:
TG-481.

Discuss:
Crew coordination.
Section responsibilities.
Sectors of fire.
Target hand-off.

Introduce/Practice:
Aiming techniques in a section.
Weapons control in a section.

Practice:
Aiming techniques in a section.
Weapons control in a section.
Weapons employment/delivery from the rear hemisphere in a section.

Performance Standards. Operate .50 Cal RMWS safely IAW crew served weapons checklist and ANTP 3-22.2-53. Aircrew shall demonstrate positive weapons control in a section and effective fire on pre-briefed targets as stated in the ANTP 3-22.2-53.

Prerequisites. TG-481.

Ordnance. 1500 rounds .50 Cal and 3 .50 Cal Machine Guns.
500 rounds per weapon. Chaff and flare mix (overt and
covert).

Range Requirements. Live fire AG range (.50 Cal).

TG-483

1.0 R 2 CH-53 NS

Goal. Introduce NS RMWS operational considerations, safety
precautions, and crew coordination for conducting multi-crew
served weapons operations during a section night aerial
gunnery flight. Qualify aircrew as a Tail Gunner Observer.

Requirement

Instructor:

CCTGI required for initial qualification and re-qualification.

Review:

TG-481.
TG-482.

Discuss:

Crew coordination while utilizing NS.
Section responsibilities while utilizing NS.
Sectors of fire while utilizing NS.
Target hand-off while utilizing NS.
Effects of chaff and flares on target.
Acquisition/engagement while utilizing NS.
Laser safety/employment.

Introduce:

Aiming techniques in a section while utilizing NS.
Weapons control in a section while utilizing NS.
Effects of chaff and flares on target.
Acquisition/engagement while utilizing NS.

Practice:

Aiming techniques in a section while utilizing NS.
Weapons control in a section while utilizing NS.
Interlocking fields of fire while utilizing NS.
Weapons employment/delivery from the rear hemisphere in a
section night shoot.

Performance Standards. Operate .50 Cal RMWS safely IAW crew
served weapons checklist and ANTP 3-22.2-53. Aircrew shall
demonstrate positive weapons control in a section at night and
effective fire on pre-briefed targets as stated in the ANTP
3-22.2-53.

Prerequisites. TG-482.

Ordnance. 1500 rounds .50 Cal and 3 .50 Cal Machine Guns.
500 rounds per weapon. Chaff and flare mix (overt and
covert).

Range Requirements. Live fire AG range (.50 Cal). Laser approved range.

9. Tactics (TAC)

a. Purpose. To conduct practical application exercises using skills developed through the syllabus. These exercises will include planning, briefing, and execution of an assault support mission in a low to medium threat environment.

b. General

(1) Aircrew shall conduct these flights under the standards required in MCO 3501.4A, MCCRES, Volume III, Marine Heavy Helicopter Squadrons and/or MCO 3501.8A MCCRES, Volume VII, MAGTF Elements. Aircrew may conduct these flights in high or low light level conditions and must be NSQ for appropriate light level.

(2) A CCNSI is required for initial TAC-492.

c. Crew Requirement. CC/AO, CC/CCUI or CC/AOUI.

d. Ground 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.

e. Flight Training. (2 Flights, 4.0 Hours).

TAC-490 2.0 R 3+ ACFT (NS)

Goal. Develop integrated tactical flight proficiency in a low to medium threat environment.

Requirement

Instructor:

CCNSI required for NS initial qualification and re-qualification.

Review:

TAC-390 and TAC-391.

Discuss:

Escort integration, i.e. Battle Positions.
Sectors of fire consideration for entire flight.
Section responsibilities, i.e. free/engaged aircraft.
Operations in LZ.

Introduce:

Escort integration, i.e. Battle Positions.
Sectors of fire consideration for entire flight.
Section Responsibilities, i.e. free/engaged aircraft.
Operations in LZ.

Performance Standards. Demonstrate proficiency in multi-aircraft flight in a low to medium threat environment as stated in the ANTPP 3-22.3-53.

Prerequisite. TAC-390 if day. TAC-391 if NS are used. Aircrew should be aerial gunners. An AGI is required if aircrew are not aerial gunners.

Ordnance. 1000 rds of .50 Cal ammo, 30 chaff, and 2 .50 Cal Machine Guns.

External Syllabus Support. Range/ordnance/escort requests.

TAC-492

2.0 R 2 ACFT NS

Goal. Develop tactical flight proficiency in urban terrain operations at night.

Requirement

Instructor:

CCNSI required for initial qualification and re-qualification.

Review:

TAC-391.

Discuss:

Effects of ambient lighting on night systems in an urban area.

Obstacle clearance in urban area.

Scan techniques in urban area, i.e. dense vegetation scan.

Introduce:

Effects of ambient lighting on night systems in an urban area.

Obstacle clearance in urban area.

Scan techniques in urban area, i.e. dense vegetation scan.

Performance Standards. Demonstrate understanding of CH-53 operations in urban areas as stated in the MAWTS-1 MOUT Manual.

Prerequisite. TAC-291, TAC-391. Aircrew should be aerial gunner qualified. An AGI is required if aircrew are not aerial gunners.

Ordnance. 2 .50 Cal Machine Guns and notional .50 Cal rounds.
Syllabus Support. N/A.

240. INSTRUCTOR TRAINING

1. Crew Chief Instructor Under Training (CCIUT)

2. Fleet Operating Squadrons. For criteria concerning all instructor certifications and designations refer to T&R Program Manual. MAWTS-1 Course Catalog contains the academic and syllabus requirements for all instructor certifications.

3. Fleet Replacement Squadron

a. Purpose. To develop proficiency in instructional procedures and techniques to support CC training.

b. General

(1) All instructor under training flights emphasize standardization of CC procedures and techniques. The CCIUT should be capable of

demonstrating all training objectives associated with Core Skill Introduction flight instruction.

(2) IUT events 500 through 507 shall be complete prior to being designated a CCI. Upon completion of STANX-507 and designation by the commanding officer, the CCI is capable of instructing all Core Skill Introduction phase events to include TERF events.

(3) STANX-507 can be flown in conjunction with any Core Skill Introduction phase event.

c. Crew Requirement. CCI/CCIUT.

d. Flight Training. (8 Flights, 8.0 Hours).

FORM-500 1.5 2 CH-53

Goal. Demonstrate CC responsibilities and instructional techniques during formation flight.

Requirement

Review:

Form-152.

Discuss:

Parade position.
Formations.
Closure rate.
Hand and arm signals.
In-flight emergency procedures.
Standard terminology.

Performance Standards. Demonstrate proper CCI responsibilities and instructional techniques during day formation flights IAW requirements outlined in this Chapter.

FORM-501 1.5 2 CH-53 NS

Goal. Demonstrate CC responsibilities and instructional techniques during night formation flight.

Requirement

Review:

Form-153.

Discuss:

Closure rate.
Aircraft lighting.
Light signals.
Lookout responsibilities.
Target fixation.
Standard terminology.
NS considerations.

Performance Standards. Demonstrate proper CCI responsibilities and instructional techniques during NS formation flights IAW requirements outlined in this Chapter.

CAL-502

1.5 1 CH-53

Goal. Demonstrate CC responsibilities and instructional techniques during CALs.

Requirement

Review:

CAL-161.
CAL-162.

Discuss:

CALs.
CRM.
Landing gear system failures.
Vibrations.
Engine failures in flight.

Performance Standards. Demonstrate proper CCI techniques and responsibilities for day CALs IAW requirements outlined in this Chapter.

Range Requirements. CAL/MAL site.

CAL-503

1.5 1 CH-53 NS

Goal. Demonstrate CCI responsibilities and instructional techniques during HLL NS CALs.

Requirement

Review:

FAM-122.
CAL-163.

Discuss:

NS.
NS considerations.
Lighting.
CALs.
CRM.
Landing gear system failures.
Vibrations.
Engine failures in flight.

Performance Standards. Demonstrate proper CCI techniques and responsibilities for HLL NS CALS IAW requirements outlined in this Chapter.

Range Requirements. CAL/MAL site.

TERF-504

1.5 1 CH-53

Goal. Demonstrate CCI responsibilities and instructional techniques during maneuvers and navigation while flying in the TERF environment.

Requirement

Review:
CAL-161 and CAL-162.
TERF-180.

Discuss:
TERF maneuvers.
Aircraft clearances.
Standard terminology.
CALs.
CRM.
Landing gear system failures.
Vibrations.
Engine failures in flight.

Performance Standards. Demonstrate proper CCI techniques and responsibilities during maneuvers and navigation while flying in the TERF environment IAW requirements outlined in this Chapter.

Range Requirements. TERF maneuver area/route.

EXT-505

1.5 1 CH-53

Goal. Demonstrate CCI responsibilities and instructional techniques used during single (53D) and dual point (53E) external operations.

Requirement

Review:
CAL-161 and 162.
EXT-170 and 172.

Discuss:
CC duties.
Standard terminology.
External operations.
CALs.
CRM.
Landing gear system failures.
Emergencies.

Performance Standards. Demonstrate proper CCI techniques and responsibilities used during external operations IAW requirements outlined in this Chapter.

Range Requirements. CAL/MAL site.

External Syllabus Support. HST, certified load.

EXT-506

1.5 1 CH-53 NS

Goal. Demonstrate CCI responsibilities and instructional techniques used during HLL NS external operations.

Requirement

Review:
CAL-163.
EXT-171 and 173.

Discuss:
NS considerations.
Lighting.
CC duties.
Standard terminology.
External operations.
CALs.
CRM.
Landing gear system failures.
Emergencies.

Performance Standards. Demonstrate proper CCI techniques and responsibilities used during HLL NS external operations IAW requirements outlined in this Chapter.

Range Requirements. Approved CAL/MAL site.

External Syllabus Support. HST, certified load.

STANX-507

1.5 1 CH-53 (NS)

Goal. CC standardization check.

Requirement

Review:
Applicable 100 series codes.

Discuss:
CCUI duties/responsibilities.
Standard terminology.
External operations.
CALs.
CRM.
Emergency procedures.
Instructional techniques.

Performance Standards. Demonstrate standard CCI procedures, techniques and responsibilities IAW requirements outlined in this Chapter.

Prerequisite. N/A.

Ordinance. N/A.

External Syllabus Support. As required.

4. CH-53D Core Skill Introduction Instructor (CSII) Training (MAG-24)

a. Purpose. To develop qualified instructor CCs for day events using a standardized flight training program.

b. General

- (1) Fly IUT flights with a designated CSII.
- (2) All IUTs shall complete every event of the IUT training syllabus.
- (3) Individuals shall be TERFI and NSI/NSFI designated prior to CSII designation.
- (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.

c. Training Objectives. All IUT flights emphasize instructional techniques, briefing, and debriefing. The IUT will be capable of demonstrating all training objectives listed for the referenced syllabus flight. Emphasis on all flights is on training objectives, method of instruction, and student problem areas. At the completion of this stage of training, the CC will be designated a CSII and is qualified to instruct CH-53D Core Skill Introduction CH-53E to D Series Conversion and Refresher events.

d. Crew Requirement. HAC/H2P/IUT/CSII.

e. Flight Training. (3 Flights, 3 Hours).

TERF-508

1.0

1 CH-53

Goal. Demonstrate CCI responsibilities and instructional techniques during maneuvers and navigation while flying in the TERF environment.

Requirement

Review:

CAL-161 and CAL-162.
TERF-180.

Discuss:

TERF maneuvers.
Aircraft clearances.
Standard terminology.
CALs.
CRM.
Landing gear system failures.
Vibrations.
Engine failures in flight.

Performance Standards. Demonstrate proper CCI techniques and responsibilities during maneuvers and navigation while flying in the TERF environment IAW requirements outlined in this Chapter.

Range Requirements. Approved TERF maneuver area/route.

EXT-509

1.0

1 CH-53

Goal. Demonstrate CCI responsibilities and instructional techniques used during single point external operations.

Requirement

Review:

CAL-161 and 162.
EXT-170 and 172.

Discuss:

CC duties.
Standard terminology.
External operations.
CALs.
CRM.
Landing gear system failures.
Emergencies.

Performance Standards. Demonstrate proper CCI techniques and responsibilities used during external operations IAW requirements outlined in this Chapter.

Range Requirements. Approved CAL/MAL site.

External Syllabus Support. HST, certified single point load.

STANX-510

1.0

E 1 CH-53 (N)

Goal. CC standardization check.

Requirement

Review:

Applicable 100 series codes.

Discuss:

CCUI duties/responsibilities.
Standard terminology.
External operations.
CALs.
CRM.
Emergency procedures.
Instructional techniques.

Performance Standards. Demonstrate standard CCI procedures, techniques and responsibilities IAW requirements outlined in this Chapter.

Prerequisite. TERF-508, EXT-509.

External Syllabus Support. As required.

AG-540-543

See MAWTS-1 Course Catalog.

TG-544-546

See MAWTS-1 Course Catalog.

NS-560-562

See MAWTS-1 Course Catalog.

TERF-570-571 See MAWTS-1 Course Catalog.

DM-580-582 See MAWTS-1 Course Catalog.

NS-590-592 See MAWTS-1 Course Catalog.

250. REQUIREMENTS, QUALIFICATIONS, AND DESIGNATIONS

1. Purpose. To determine qualification for designation in specific flight skills and systems knowledge.

2. General

a. This is an annual flight requirement per OPNAVINST 3710.7 and the CH-53 NATOPS Manual.

b. The evaluating CC shall be a CC NATOPS Assistant Instructor, NATOPS Instructor, or Evaluator.

3. Crew Requirement. CC/CC or CC/AO.

4. Flight Training. (1 Flight, 1.5 Hours).

EVAL-600 1.5 E 1 CH-53 (NS)

Goal. Completion of the annual NATOPS evaluation.

Requirement

Discuss:

Crew Brief.

Demonstrate:

Aircraft systems knowledge.
Pre/post flight procedures.
In-flight procedures.
Emergency procedures.
CRM.

Performance Standards. Demonstrate proficiency and knowledge of all flight skills and systems of the CH-53 as a CC or AO as applicable.

Prerequisites. Annual NATOPS Open and Closed book examinations must be complete prior to flight.

Ordinance. N/A.

External Syllabus Support. As required.

251. GRADUATE LEVEL COURSES

1. There are 5 graduate level courses that certify CCIs for tactical portions of the T&R syllabus. These courses are as follows:

- a. Crew Chief Weapons and Tactics Instructor (WTI Sec MOS 6177).
- b. Crew Chief Terrain Flight Instructor (CCTERFI).
- c. Crew Chief Night Systems Instructor (CCNSI).

- d. Crew Chief Defensive Measures Instructor (CCDMI).
- e. Crew Chief Aerial Gunner Instructor (CCAGI).
- f. Crew Chief Tail Gunner Instructor (CCTGI).

2. The above courses and applicable training syllabi are listed in the current MAWTS-1 Course Catalog. There will be no refly requirement for these instructor flights. T&R syllabus proficiency in stages is considered sufficient to maintain proficiency as an instructor. WTIs are only certified at the Weapons and Tactics Instructor course provided at MAWTS-1.

3. There is 1 graduate level course to qualify CCIs for the Fleet Replacement Squadron. This program of instruction is contained in paragraph 240, Instructor Under Training.

260. ORDNANCE REQUIREMENTS. Annual ordnance requirements are developed on an individual crewmember basis per OPNAVNOTE 8010.

ORDNANCE	100 SERIES	200 SERIES	300 SERIES	400 SERIES	REFRESHER	IUT	ANNUAL*
.50 Cal	0	1,000	2,000	2,500	5,500	2,900	3,500
Chaff(1)	0	0	90	30	120	0	90
Flares(1)	0	0	90	90	180	0	90

Note (1) Chaff and Flare requirements are determined by the pilot's syllabus, Chapter 1.

* Annual Ordnance requirements maintain aircrew proficiency.

270. 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.

CH-53 CREW CHIEF														
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
FAM														
FAM	110	1.5		*	A	1	D				3.0		DAY FAM	110
FAM	111	1.5		*	A	1	D	110	SCD		3.0		DAY FAM	111
FAM	112	1.5		*	A	1	D	111			3.0		DAY FAM	112
FAM	113	1.5		*	A	1	D	112	R, SCE		3.0		DAY FAM	113
FAM	119	1.5		*	A	1	(NS)	113	SCD		3.0		NIGHT FAM	119
FAM	120	1.5		*	A	1	N*	113			3.0		NIGHT FAM	120
FAM	121	1.5		*	A	1	NS	113, NITE LAB			4.0		NS FAM	121
FAM	122	1.5		*	A	1	NS	121	R		4.0		NS FAM	122
											26.0			
INT														
INT	135	1.5		*	A	1	(N)	113			2.0		D/N INT	135
INT	136	1.5		*	A	1	(N)	113			2.0		D/N INT	136
											4.0			
FORM														
FORM	152	1.5		*	A	2	D	113			2.0		DAY FORM	152
FORM	153	1.5		*	A	2	NS	122, 152			2.0		NS FORM	153
											4.0			
CAL														
CAL	161	1.5		*	A	1	D	113	SCD		2.0		DAY CAL	161
CAL	162	1.5		*	A	2	D	161	R, SCE, SCD		2.0		DAY SECTION CAL	N/A
CAL	163	1.5		*	A	1	NS	122, 161			2.0		NS CAL	163
CAL	164	1.5		*	A	2	NS	163	R, SCE		2.0		NS SECTION CAL	N/A
											8.0			
EXT														
EXT	170	1.5		*	A	1	D	161	R, SCD, SCE		3.0		DAY SINGLE PT EXT	170
EXT	171	1.5		*	A	1	NS	122, 170	R, SCD, SCE		3.0		NS SINGLE PT EXT	171
EXT	172	1.5		*	A	1	D	170	R, SCE		3.0		DAY DUAL PT EXT	172
EXT	173	1.5		*	A	1	NS	171, 172	R, SCE		3.0		NS DUAL PT EXT	173
											12.0			
TERF														
TERF	180	1.5		*	A	1	D	113	R, SCD		2.0		DAY TERF	180
											2.0			
CSIX														
CSIX	191	1.5		*	A	1	(NS)	All prior applicable 100 level flights	R, SCE, SCD E		4.0		EVAL	191
											4.0			
CRP TOTAL FOR PHASE											60.0			

CH-53 CREW CHIEF															
200 SERIES CORE SKILL BASIC															
STAGE	TRNG CODE	FLT HOURS	SIM HOURS	REFLY INT	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVAL	CRP (E)	CRP (D)	CHAINING	EVENT DESC	OLD CODE
INT															
INT	200	1.0		365	A	1	(N)		R		0.5	0.5		INT	200
INT	201	1.0		365	A	1	(N)		R		0.5	0.5		INT CARGO TROOPS	201
											1.0	1.0			
FORM															
FORM	210	1.0		365	A	2	D		R		0.5	0.5		2 A/C DAY FORM	210
FORM	211	1.0		180	A	2	NS	210	R		0.5	0.5	210	2 A/C HLL FORM	211
											1.0	1.0			
CAL															
CAL	220	1.5		365	A	1	D				0.5	0.5		1 A/C DAY CAL	220
CAL	221	1.5		365	A	2	D	210,220	R,SC		0.5	0.5	210,220	2 A/C DAY CAL	221
CAL	222	1.5		180	A	1	NS	220			0.5	0.5	220	1 A/C HLL CAL	222
CAL	223	1.5		180	A	2	NS	211,221, 222	R,SC		0.5	0.5	210,211,220,221,222	2 A/C HLL CAL	223
											2.0	2.0			
TERF															
TERF	230	1.5		365	A	1	D				0.5	0.5		1 A/C DAY TERF	230
TERF	231	1.5		365	A	2	D	210,230	R,SC		0.5	0.5	210,230	2 A/C DAY TERF	231
TERF	232	1.5		180	A	1	NS	230			0.5	0.5	220,222,230	1 A/C HLL TERF	232
TERF	233	1.5		180	A	2	NS	211,231, 232	R,SC		1.0	1.0	210,211,220,221,222, 223,230,231,232	2 A/C HLL TERF	233
											2.5	2.5			
EXT															
EXT	240	1.5		365	A	1	D	220	R,SC		0.5	0.0	220	SINGLE PT EXT	240
EXT	241	1.5		365	A	1	D	220	R,SC		0.5	1.0	220,240	DUAL PT EXT	241
EXT	242	1.5		365	A	1	D	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	R,SC		1.0	0.0	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
											4.0	4.0			
FCLP															
FCLP	271	1.0		365	A	1	D	220	R		0.5	0.5		CQ	471
FCLP	272	1.0		*	A	1	N*	271			0.5	0.5	271	CQ	472
FCLP	273	1.0		365	A	1	NS	SEE EVENT	R		0.5	0.5	271	CQ	473
											1.5	1.5			

CH-53 CREW CHIEF															
200 SERIES CORE SKILL BASIC															
STAGE	TRNG CODE	FLT HOURS	SIM HOURS	REFLY INT	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVAL	CRP (E)	CRP (D)	CHAINING	EVENT DESC	OLD CODE
AG															
AG	280	1.0		365	A	1	D	230	R		0.5	0.5		1 A/C AG	280
AG	281	1.0		365	A	2	D	231,280	R		0.5	0.5	280	2 A/C AG	281
											1.0	1.0			
TAC															
TAC	290	2.0		365	A	2	D	221,231			1.0	1.0	201,210,220,221	2 A/C DAY TAC	290
TAC	291	2.0		365	A	2	NS	223,233, 290	R		1.0	1.0	201,210,211,220,221,222, 223,290	2 A/C HLL TAC	291
											2.0	2.0			
CRP TOTAL FOR PHASE											15.0	15.0			

CH-53 CREW CHIEF														
300 SERIES CORE SKILL ADVANCED														
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	320	1.5		180	A	1	NS	SEE EVENT			1.5	220, 222	1 A/C LLL CAL	320
CAL	321	1.5		180	A	2	NS	320	R, SC		2.0	210, 211, 220, 221, 222, 223, 320	2 A/C LLL CAL	321
											3.5			
TERF														
TERF	330	1.5		180	A	1	NS	320			2.0	220, 222, 230, 232, 320	1 A/C LLL TERF	330
TERF	331	1.5		180	A	2	NS	321, 330	R, SC		2.0	210, 211, 220, 221, 222, 223, 230, 231, 232, 233, 320, 321, 330	2 A/C LLL TERF	331
											4.0			
EXT														
EXT	342	1.5		180	A	1	NS	320	R, SC		2.0	220, 222, 240, 241, 243, 244, 320	LLL SINGLE/DUAL PT EXT	342
EXT	343	1.5		180	A	1	NS	SEE EVENT	R, SC		2.0	220, 222, 230, 232, 240, 242, 243	NS TERF EXT	343
											4.0			
GTR														
GTR	350	1.0		365	A	2	(NS)	SEE EVENT	R		1.0	210, 230, 231	GTR	350
											1.0			
AG														
AG	380	1.0		365	A	1	NS	SEE EVENT	R		1.5	280	1 A/C NS AG	380
AG	381	1.0		365	A	2	NS	SEE EVENT	R		2.0	281, 380	2 A/C NS AG	381
											3.5			
TAC														
TAC	390	2.0		365	A	2+	D	290	R		2.0	201, 210, 220, 221, 290	2 A/C DAY TAC	390
TAC	391	2.0		365	A	2+	NS	331, 390	R		2.0	201, 210, 211, 220, 221, 222, 223, 290, 291, 320, 321, 390	2 A/C LLL TAC	391
											4.0			
CRP TOTAL FOR PHASE											20.0			

CH-53 CREW CHIEF															
400 SERIES CORE PLUS															
STAGE	TRNG CODE	FLT HOURS	SIM HOURS	REFLY INT	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVAL	CRP (E)	CRP (D)	CHAINING	EVENT DESC	OLD CODE
HIE															
HIE	400	1.0		*	A	1	(NS) SEE EVENT		R, SC		0.25	0.25	201	FAST-ROPE OR SPIE	400
HIE	401	1.0			A	1	D TERFQ		R, SC		0.25	0.25	201	HELOCAST	401
HIE	402	1.0		*	A	1	(NS) SEE EVENT		R		0.25	0.25	201	PARAOPS	402
											0.75	0.75			
INT															
INT	410	1.5			A	1	(NS) SEE EVENT		R, SC		0.25	0.0	200	TBFDS	410
											0.25	0.0			
GTR															
GTR	450	1.0			A	2	(NS) 231		R		0.25	0.25	210, 230, 231	GTR	350
											0.25	0.25			
DM															
DM	451	1.0			A	2	D 231		R		0.25	0.25	210, 230, 231	RWDM	450
DM	452	1.0			A	2	D 231		R		0.25	0.25	210, 230, 231	FWDM	451
											0.5	0.5			
NBC															
NBC	460	1.0		*	A	1	(NS) SEE EVENT		R		0.25	0.25		NBC	460
											0.25	0.25			
CQ															
CQ	470	1.5			A	1	D 271		R		0.25	0.25	271	DAY CQ	474
CQ	471	1.5		*	A	1	N* 272, 470				0.25	0.25	271, 470	UNAIDED CQ	475
CQ	472	1.5			A	1	NS SEE EVENT		R		0.25	0.25	271, 273, 470	NS CQ	476
											0.75	0.75			
MTG															
MTG	480	1.5			A	1	(NS) 280		R		0.5	0.5	280	MTG	480
											0.5	0.5			
TG															
TG	481	1.0			A	1	D AGQ		R		0.25	0.25		TG	481
TG	482	1.0			A	2	D 481		R		0.5	0.5	481	TG	482
TG	483	1.0			A	2	NS 482		R		0.5	0.5	481, 482	TG	483
											1.25	1.25			
TAC															
TAC	490	2.0			A	3+	(NS) SEE EVENT		R		0.25	0.25	210, 220, 221, 290, 390	TAC	490
TAC	492	2.0			A	2	NS SEE EVENT		R		0.25	0.5	210, 211, 220, 221, 222, 223, 290, 291, 390	TAC	492
											0.5	0.75			
CRP TOTAL FOR PHASE											5.0	5.0			

CH-53 CREW CHIEF														
500 SERIES INSTRUCTOR														
STAGE	TRNG CODE	FLT HOURS	SIM HOURS	REFLY INT	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVAL	CRP	CHAINING	EVENT DESC	OLD CODE
FRS CCI														
FORM	500	1.5		*	A	2	D				0.0		FORM	500
FORM	501	1.5		*	A	2	NS				0.0		FORM	501
CAL	502	1.5		*	A	1	D				0.0		CAL	502
CAL	503	1.5		*	A	1	NS				0.0		CAL	503
TERF	504	1.5		*	A	1	D				0.0		TERF	504
EXT	505	1.5		*	A	1	D				0.0		EXT	505
EXT	506	1.5		*	A	1	NS				0.0		EXT	506
STANX	507	1.5		*	A	1	(NS)			E	0.0		STANX	507
											0.0			
MAG-24 CSII														
TERF	508	1.0		*	A	1	D				0.0		TERF	504
EXT	509	1.0		*	A	1	D				0.0		EXT	506
STANX	510	1.0		*	A	1	(N)			E	0.0		STANX	507
											0.0			
CRP TOTAL FOR PHASE											0.0			

CH-53 CREW CHIEF														
600 SERIES REQUIREMENTS, QUALIFICATIONS, DESIGNATIONS														
STAGE	TRNG CODE	FLT HOURS	SIM HOURS	REFLY INT	DEVICE	# OF A/C	CONDITIONS	PREREQ	POI	EVAL	CRP	CHAINING	EVENT DESC	OLD CODE
EVAL														
EVAL	600	1.5		365	A	1	(NS)		R, SC	E	0.0		NATOPS EVAL	600
											0.0			
CRP TOTAL FOR PHASE											0.0			

CH-53 AERIAL OBSERVER														
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
FAM														
FAM	110	1.5		*	A	1	D				3.0		DAY FAM	110
FAM	121	1.5		*	A	1	NS	110	R		4.0		NS FAM	122
											7.0			
FORM														
FORM	152	1.5		*	A	2	D	161			4.0		DAY FORM	152
FORM	153	1.5		*	A	2	NS	122, 152			5.0		NS FORM	153
											9.0			
CAL														
CAL	161	1.5		*	A	1	D	110			4.0		DAY CAL	162
CAL	162	1.5		*	A	2	D	161	R, SCE		4.0		DAY SECTION CAL	N/A
CAL	163	1.5		*	A	1	NS	122, 161			4.0		NS CAL	163
CAL	164	1.5		*	A	2	NS	163	R, SCE		5.0		NS SECTION CAL	N/A
											17.0			
EXT														
EXT	170	1.5		*	A	1	D	161	R, SCE		5.0		DAY SINGLE PT EXT	170
EXT	171	1.5		*	A	1	NS	122, 170	R, SCE		5.0		NS SINGLE PT EXT	171
EXT	172	1.5		*	A	1	D	170	R, SCE		5.0		DAY DUAL PT EXT	172
EXT	173	1.5		*	A	1	NS	171, 172	R, SCE		5.0		NS DUAL PT EXT	173
											20.0			
TERF														
TERF	180	1.5		*	A	1	D	161	R		3.0		DAY TERF	180
											3.0			
CSIX														
CSIX	191	1.5		*	A	1	(NS)	All prior applicable 100 level flights	R, SCE	E	4.0		EVAL	191
											4.0			
CRP TOTAL FOR PHASE											60.0			