

# Honolulu Control Facility

# FACILITY TRAINING ORDER

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# **DOCUMENT INFORMATION**

#### Purpose

This order establishes training, testing, and evaluation procedures for the operational workforce at Honolulu Control Facility (HCF). The Facility Training Order will not cover every situation that may occur.

#### Distribution

This document is distributed to all Honolulu Control Facility personnel.

# Responsibility

The Air Traffic Manager or their designee shall be responsible for the maintenance of this document and any policies that deviate from it.

## **Procedural Deviations**

Exceptional or unusual requirements may dictate procedural deviations or supplementary procedures to this order. A situation may arise that is not adequately covered herein; in such an event use good judgement to effectively resolve the problem.

# **Updates and Changes**

The Air Traffic Manager or their designee may post interim changes to this document in the form of notices via the HCF website and discord. Controllers are requested to check for any notices prior to controlling for changes in procedures.

## Cancellation

This document cancels any relevant procedures or agreements previous to this one, beginning on the date of effectiveness of this document.

# TABLE OF REVISIONS

DATE	REVISION	EDITOR/VERSION
22 Feb 2024	Initial Release	Dave Mayes / ATM HCF 3120.4A
08 Mar 2024	Updated Mentor Requirements	David Shoup / TA HCF 3120.4B
12 Mar 2024	Updated Syllabus	David Shoup / TA HCF 3120.4C
09 May 2024	Updated Syllabus + Solo Clarifi- cation	David Shoup / TA HCF 3120.4D

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# 1 Training Staff

# 1.1 Mentor Requirements

**Purpose:** This document serves as guidance for prospective Mentors (MTR) within HCF ARTCC. These guidelines serve as a supplement to the regulations laid forth within the HCF ARTCC Facility General Operating Procedures. A MTR is selected and promoted by the Training Administrator based on their skill, experience, and teaching ability. Interested candidates should contact the Training Administrator (TA) in writing at <u>ta@vhcf.net</u>.

**Eligibility:** Any person wishing to act as a MTR within HCF must:

- 1. Be an active member of the network in good standing.
- 2. Hold an <u>S3</u> rating (or higher) for the previous 90 days.
- 3. Be able to work in a team environment.
- 4. Have excellent written and oral communication skills.

**Induction Flow:** Persons who express interest in becoming an MTR will typically be expected to complete the following items in the order listed prior to certification:

- 1. Observe at least 2 sessions.
- 2. Act as a "Remote Pilot Operator" for at least 2 sessions.
  - a. A "Remote Pilot Operator" (RPO) is a person whose primary function consists of issuing commands to simulated pilots.
- 3. Administer at least 1 theory session under the supervision Instructor (INS).
- 4. Administer at least 1 training session on the live network while being supervised.
- 5. Without the assistance of others, demonstrate to the TA the ability to provide instruction to students when given a particular lesson plan.
- 6. Document every type of training session through facility website training notes.

## 1.1.1 Mentor Limitations

A MTR holding a C1 rating may train any student on any position. A MTR holding an S3 rating may train any student on any position (S2 rating or lower).

# 1.2 Instructor

An Instructor (INS) is a controller who has held a C1/C3 or as a previous INS rating for at least 90 days prior to being nominated by the HCF TA and approved by VATUSA. An INS trains Controllers-in-training (CIT's) of all levels. Their responsibilities also include:

• Approving solo certifications

- Enrolling CIT's in appropriate Academy courses
- Administer Over-The-Shoulder (OTS) exams

#### 1.2.1 Instructor Requirements

- Must have held a HCF Center Certification (C1 rating) in HCF for the previous ninety (90) days.
- Must be a HCF MTR for the previous ninety (90) days.
- Must be an active member of the network in good standing with no long-term suspensions.

#### 1.2.2 Instructor Limitations

- An INS may train any student on any position.
- An INS may award TWR, APP, and CTR Solo Certifications.

# 1.3 Training Staff Monthly Currency

All Instructors and Mentors should conduct at least one (1) training session per month. The training session may come in the form of:

- Sweatbox (classroom theory or Simulation)
- LIVE network training

# 2 Training Policy

# 2.1 Training Flow

# 2.1.1 General

Controllers-In-Training (CIT) are expected to begin training after reviewing the applicable HCF Facility General Operating Procedures (GOP), Standard Operating Procedures (SOPs), and additional training documentation as well as any materials suggested by the facility training staff.

The CIT will train with a Mentor/Instructor (MTR/INS) to guide them through their rating. To schedule training, the CIT is responsible to request training for the applicable rating or checkout. This will be done by following the instructions in the CONTROLLER TRAINING channel, #training-requests on the Discord Server.

The CIT is strongly encouraged to log into the network as an OBS to observe controllers and MTR/INS working air traffic, especially for preparing to train on a position.

# 2.1.2 Home Controller Flow

An OBS/CIT student is expected to review the VATUSA training material, the General Operations Policy and Training Department Policy, training syllables, and any additional training material provided by the HCF training staff. Observers are expected to self-study basic concepts provided during their training sessions.

All training will be conducted as outlined in the training syllabus (see listing). The CIT student should look ahead to the next lesson to understand and prepare what will be required.

Each lesson shall be satisfactorily completed prior to moving on to the next lesson. If the CIT student is having a difficult time advancing to the next lesson, they should be referred to the TA for review.

- Solo Certifications shall only be issued upon all lessons being satisfactorily completed.
- <u>Solo Certifications for HNL TWR, HCF APP, and HCF CTR shall be issued</u> in compliance with VATUSA Training policy (DP002).
- The VATUSA General Training Policy URL: <u>https://www.vatusa.net/info/policies</u>

\*Solo Certifications shall not work their 'Solo Certification position' during HCF events.

# 2.1.3 Visiting Controller Flow

Visiting controllers <u>within</u> VATUSA will follow the guidelines according to HCF GOP, Chapter 4. Visiting controllers from <u>outside</u> VATUSA shall follow the guidelines according to HCF GOP, Chapter 4, section 4.1.

Visiting controllers are required to be competent according to the VATSIM GCAP competencies and any existing VATUSA competencies.

# 2.2 Late – No-Show – Cancellation Policy

## 2.2.1 Late Policy

- The CIT should be ready to go for scheduled training at their scheduled time.
- The CIT should make themselves available by being present in the HCF Discord Training Waiting Lounge.
- If the CIT student knows that they will be late for their scheduled training, the MTR/INS staff member should be informed as soon as possible.
- If the MTR/INS staff member knows that they will be late for their scheduled training, the CIT should be informed as soon as possible.
- If an MTR/INS is late it is required that the CIT send an email to the Training Administrator to report the late occurrence.

# 2.2.2 No-Show Policy

In case either party is running late, it is required for both parties, CIT student or MTR/INS, to wait at least 15 minutes after the scheduled training time before considering the session to be a No-Show. Additionally, sessions may also be considered a No-Show if they are canceled less than six hours from the start of the session.

The CIT student is responsible for showing up to their requested/scheduled training sessions on time and fully prepared. In the event the CIT student does not show up for their session, disciplinary action will follow a 3-strike system:

- 1. Upon the first no show, the CIT student shall be warned though the training notes left for the training session.
- 2. Upon the second no show, the CIT student shall be warned via email by the TA and reminded of the actions. At the discretion of the TA, a hold shall be placed on the CIT students account, during which the CIT student will not be allowed to book any training sessions. This hold shall be in place for no more than 7 days starting from the end time of the training session that the CIT student did not attend.
- 3. Upon the third no show, and to any subsequent no shows, at the discretion of the TA, a hold shall be placed on the CIT students account, during which the CIT student will not be allowed to book any training sessions regardless of date. This hold shall be in place for no more than 14 days starting from the end time of the training session that the CIT student did not attend. The CIT student shall be notified of all holds and their end time via email from the TA.

# 2.2.3 Scheduled Training Cancellation

Cancellations can be executed by the CIT or instructor through HCF Discord or sending an email to the instructor/mentor or student. Cancellations should be received no less than 6 hours in advance, unless in the event of an emergency.

All No-Shows, reschedules, and cancellations less than 6 hours in advance by mentor, instructor, or student shall be emailed to the TA with a reason, if able.

# 3 Facility Information and Welcome

The Honolulu Control Facility is part of the VATUSA division. There are two facilities that are combined within HCF which is HCF and ZUA.

# 3.1 VATUSA

VATUSA is a division of the VATSIM Americas region comprising of almost all airspace operated by the real-world Federal Aviation Administration. The airspace comprises of 20 Air Route Traffic Control Centers (contiguous US and Anchorage), 1 Control Facility (Honolulu Control Facility) and 1 CERAP (Guam CERAP, under management of HCF). All information contained within this website is designated for use with the VATSIM network and for flight simulation purposes. Information is not intended nor should be used for real world navigation and its use for real world navigation could be in violation of federal laws. This website is not affiliated with the Federal Aviation Administration or any other governing body. - VATUSA

# 3.2 HCF

Honolulu Control Facility an air traffic control facility located in Honolulu, Hawaii, United States operated by the Federal Aviation Administration (FAA). This facility includes the Honolulu International Airport control tower and the Honolulu Center Radar Approach Control (CERAP), itself a combined TRACON-area control center unit covering the Pacific Ocean surrounding the Hawaiian Islands.

# 3.3 ZUA

Guam ARTCC is one of 22 Enroute facilities that serves an area comprised of nearly 200,000 square miles of airspace. Our control area, which is part of the Oakland ARTCC Flight Information Region, is essentially a 250 nautical mile circle with Guam at its center and is predicated on the radar coverage available from one of our radar sites on the northern tip of Guam. Besides providing air traffic services for Guam, our facility's airspace also encompasses the Northern Mariana Islands of Rota, Saipan, and Tinian. Our facility supports approximately 250,000 aircraft operations each year, which not only includes civilian air traffic but a considerable number of military aircraft. In fact, our facility is unique in that it supports a number of large-scale military exercises and special training missions which truly make this facility an especially challenging and exciting place to work.

# **4** Training Program Information

The Honolulu Control Facility training program is designed to keep our training standardized and aligned to VATUSA standards as well as being VATSIM Global Ratings Policy compliant. This program will be broken into units and lessons to allow a standardized way of teaching students effectively and efficiently. The goal of this program is to have every student proficient by the end of each course to utilize a solo certification.

# 4.1 Training Syllabus - Introduction

Below is the guideline of which the CIT student training will be completed to ensure competency for the appropriate rating. The MTR/INS will help guide the CIT student through the units and lessons to help teach the CIT student the information needed to become an effective controller and comply with the VATSIM GCAP and VATUSA training guideline.

# 5 Student 1 Training

# 5.1 S1 Lesson 1 – Setup

**Client Setup** 

- The current software client for VATSIM USA is **CRC**. (<u>https://vnas.vatsim.net/crc</u>)
- The most commonly used client for Ground Control and Clearance Delivery is **Tower Cab** mode.
- To setup **CRC**, download from the URL listed above.
- Your Mentor/Instructor will provide further detail with you on setting up the client and learning how to connect.
- Set your Visibility range in accordance with <u>VATSIM Code of Conduct</u>. For ground this should be 20nm or less.
- In addition to **CRC**, you will also be instructed to download/use **vSTRIPS** and **vTDLS**.
- vStrips is a web-based simulation of the paper flight progress strips used by FAA controllers in air traffic control towers. The application is used alongside a primary controlling client, such as CRC. Controllers logged in to the same vStrips facility share a set of flight strip bays that automatically update whenever a controller adds, moves, edits, or deletes a flight strip.
- **vStrips** also offers a variety of features that mirror realistic workflows, including the ability to add separators between flight strips, create custom half-strips for temporary or VFR flight plans, and offset strips to the side of a rack.
- **vTDLS** is a high-fidelity simulation of the real-life FAA TDLS (Tower Data-Link Services) system that allows controllers to send pre-departure clearances (PDCs) to aircraft. **vTDLS** greatly reduces the workload of clearance-delivery controllers at equipped airports, particularly during departure-heavy events as it allows controllers to review flight plans and send PDCs to pilots before they even connect to the network.

# 5.2 S1 Lesson 2 – Oral

#### **Airspace Information**

**Class E** - Controlled airspace with only a transponder being required above C, above 10,000, and within a Class B mode C veil.

**Class D** - Only two-way radio communication is needed. Only aircraft requesting radar services under approach control and IFR traffic need squawk codes.

**Class C** - Aircraft are required to have a transponder and two-way radio communication. Most aircraft will be given a squawk code depending on direction, altitude, radar services, or intentions.

**Class B** - Aircraft are required to have a clearance, transponder within the 30-mile mode C Veil, and two-way radio communication. All aircraft VFR or IFR will be given a squawk code.

**Class A** - Aircraft are required to be on an IFR flight plan, clearance, transponder, and two-way radio communication.

#### **Clearance Information**

Clearances for IFR flight are given using the CRAFT acronym.

#### <u>Clearance Limit / Route of flight / Altitude / Frequency / Transponder Code.</u>

Clearances for VFR operations in, out, or through Class B airspace is as follows. "N123AB CLEARED THROUGH/TO ENTER/OUT OF BRAVO AIRSPACE "

# 5.3 S1 Lesson 3 – Oral

#### **Movement vs Non-Movement**

Movement area is areas on the airport such as taxiways and runways. These are areas that aircraft must have permission to move about, takeoff, or land on.

Non-Movement area is areas on the airport such as the terminal ramp, general aviation ramp, or military ramps. These are locations that aircraft can move about without permission from the controller.

#### Taxi Information

**Fixed Wing** - These aircraft taxi about the normal way you see on an airport if you was flying on an airliner or flying with a friend. The correct way to issue a taxi clearance is "*FDX9260 Runway 4R taxi via C Altimeter 30.11" or "FDX9260 taxi to parking via C"* 

Note that you do not have to give the altimeter if they call with the current ATIS or numbers.

**Helicopters** - Helicopters have several ways they can taxi. They can surface taxi, hover taxi, or air taxi. However, helicopters will generally take off from present position.

Surface Taxi - Helicopters have wheels and would taxi like a normal aircraft.

**Hover Taxi** - When requested or necessary for a helicopter/VTOL aircraft to proceed at a slow speed above the surface, normally below 20 knots and in ground effect, use the following phraseology.

"Helicopter N123AB runway 4R hover taxi via C" If needed you can issue CAUTION (dust, blowing snow, loose debris, taxiing light aircraft, personnel, etc.).

**Air Taxi** - When requested or necessary for a helicopter to proceed expeditiously from one point to another, normally below 100 feet AGL and at airspeeds above 20 knots, use the following phraseology.

"Helicopter N123AB Air Taxi via (direct, as requested, or specified route) TO (location, heliport, helipad, operating/movement area, active/inactive runway) AVOID (aircraft/vehicles/personnel). If required, REMAIN AT OR BELOW (altitude). CAUTION (wake turbulence or other reasons above). LAND AND CONTACT TOWER, or HOLD FOR (reason- takeoff clearance, release, landing/taxiing aircraft, etc.)."

#### **RVSM Airspace**

Reduced vertical separation minima or minimum (RVSM) is the reduction, from 2,000 feet to 1,000 feet, of the standard <u>vertical separation</u> required between aircraft flying between <u>flight level</u> 290 (29,000 ft)

and flight level 410 (41,000 ft). This reduction in vertical separation minima therefore increases the number of aircraft that can fly in a particular volume of <u>controlled airspace</u>.

Aircraft must be RVSM capable to cruise between FL290 and FL410. Aircraft can cruise above FL410 non RVSM capable however, they cannot level off in RVSM airspace.

Above RVSM airspace separation will be 2,000 ft resulting in all cruising altitudes being odds alternating for direction of flight.

# 5.4 S1 Lesson 4 – Oral

#### Equipment Codes

You will see an image attached with the most common/simple equipment suffixes that include both RVSM and non RVSM codes.

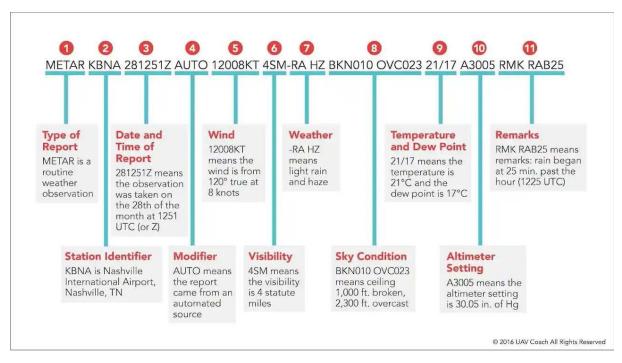
Aircraft Equipment Suffixes				
Separation Standard	Navigation Capability	Transponder Capability	Suffix	
	Any	Failed transponder	/H	
	Any	Failed Mode C	/O	
	No RNAV, No GNSS	Transponder with Mode C	/W	
	RNAV, No GNSS	Transponder with Mode C	/Z	
RVSM	GNSS	Transponder with Mode C	/L	
		No transponder	/X	
	No DME	Transponder, no Mode C Transponder with Mode C	/T /U	
	DI	No transponder	/D	
	DME	Transponder, no Mode C Transponder with Mode C	/B /A	
		No transponder	/M	
Non-RVSM	TACAN	Transponder, no Mode C	/N	
		Transponder with Mode C	/P	
	RNAV,	No transponder	/Y	
	N. CNICC	Transponder, no Mode C	/C	
	No GNSS	Transponder with Mode C	/I	
		No transponder	/V	
	GNSS	Transponder, no Mode C	/S	
		Transponder with Mode C	/G	

IBL 2-3-10 Aircraft Equipment Suffixes

# Honolulu Control Facility

Facility Training Order

#### Weather



Туре	Abbreviation	Meaning	Abbreviation	Meaning
Intensity	-	Light intensity	blank	Moderate intensity
Intensity	+	Heavy intensity	VC	In the vicinity
Descriptor	MI	Shallow (French: Mince)	PR	Partial
Descriptor	BC	Patches (French: Bancs)	DR	Low drifting
Descriptor	BL	Blowing	SH	Showers
Descriptor	TS	Thunderstorm	FZ	Freezing
Precipitation	RA	Rain	DZ	Drizzle
Precipitation	SN	Snow	SG	Snow Grains
Precipitation	IC	Ice Crystals	PL	Ice Pellets
Precipitation	GR	Hail (French: Grêle)	GS	Small Hail and/or Snow Pellets (French: Grésil)
Precipitation	UP	Unknown Precipitation		
Obscuration	FG	Fog	VA	Volcanic Ash
Obscuration	BR	Mist (French: Brume)	HZ	Haze
Obscuration	DU	Widespread Dust	FU	Smoke (French: Fumée)
Obscuration	SA	Sand	PY	Spray
Other	SQ	Squall	PO	Dust or Sand Whirls
Other	DS	Duststorm	SS	Sandstorm
Other	FC	Funnel Cloud		
Time	В	Began At Time	E	Ended At Time
Time	2 digits	Minutes of current hour	4 digits	Hour/Minutes Zulu Time

# 5.5 S1 – Checklist

CRC	<ul> <li>Can connect to CRC on an active position (Sweatbox)</li> <li>Properly establish and communicate two-way radio communication</li> </ul>
Weather	<ul> <li>Cloud Reporting</li> <li>Can fully decode a METAR including: Station identification, Time observation was made, Wind (including variable, guts), Altimeter setting, Temperature &amp; Dew point (and explains relationship), Identified cloud types and when a ceiling is present</li> <li>Properly decodes METAR and TAF</li> </ul>
Clearance Delivery	<ul> <li>Can explain the parts of a flight plan</li> <li>Clearance Information</li> <li>RVSM Airspace</li> <li>Equipment Codes</li> <li>Issues clearances using prescribed phraseology</li> </ul>

	<ul> <li>Identifies flight plan altitudes which do not correspond with NE-ODD/SWEVEN</li> <li>Processes amendments to flight plan</li> <li>Identifies errors in flight plans and corrects</li> <li>Defines all parts of a clearance</li> <li>Explains all types of SIDs</li> <li>Defines what RVSM is and how it differs from normal direction of flight altitude rules</li> <li>Defines all parts of a flight plan</li> <li>Defines, compares and contrasts: /A, /G, /L and /Z equipment suffixes</li> <li>Identifies, compares and contrasts at minimal the differences between VOR and area navigation. Ensures flight plans are in compliance with restrictions regarding navigation type by identifying /A, /G and /L</li> <li>Issue VFR Class B clearance including discrete beacon code</li> <li>Informs pilot of ATIS if they do not call in along with runway and altimeter setting as needed</li> <li>Ensures read back is correct with prescribed phraseology</li> <li>Clearance issuance</li> <li>At least 90% of VFR clearances contain no errors</li> <li>At least 90% of VFR clearances contain no errors</li> </ul>
Ground Control	<ul> <li>Movement vs non movement</li> <li>Taxi Information</li> <li>Defines movement and non-movement areas</li> <li>Issues taxi instructions to an active runway utilizing prescribed phraseology</li> <li>Issues taxi to a runway for an intersection departure using prescribed phraseology</li> <li>Explains special significance of heavy/super</li> <li>Ground movement</li> <li>Arriving aircraft are taxied to requested destination IAW the standards 7110.65</li> <li>Departing aircraft are taxied to their runway IAW the standards 7110.65</li> <li>No runway incursions occur. No multiple runway crossings are issued</li> <li>Aircraft are squawking altitude encoding prior to take-off</li> <li>Proper sequencing is utilized including but not limited to departure sequencing, and proper give-way/follow instructions</li> <li>Identifies floor/ceiling of class C airspace and requirements to operate within.</li> </ul>

- Identifies floor/ceiling for a class B airspace and requirements to operate within. Shows how B and C differ.
- Identifies requirements to be in Class A airspace along with the floor and ceiling thereof

# 5.6 S1 Lesson 5 – Sweatbox

This lesson is a sweatbox scenario. The MTR/INS will run this session handling IFR and VFR traffic.

#### 1. Demonstrates knowledge of Delivery and Ground Controller duties and responsibilities

- Defines all parts of a clearance.
- Explains all types of SIDs.
- Defines what RVSM is and how it is used on VATSIM.
- Defines all parts of a flight plan.
- Defines, compares, and contrasts /A, /G, and /L equipment suffixes.
- Identifies difference between movement and non-movement areas.

#### 2. Clearance Issuance

- IFR Clearances are issued IAW the standard.
- VFR Clearances are issued IAW the standard.

#### 3. Ground Movement

- Arriving aircraft are taxied to requested destination IAW the standard.
- Departing aircraft are taxied to their runway IAW the standard.
- No runway incursions occur.
- Runway Crossing are issued IAW the standard.
- Aircraft are squawking altitude encoding if required.
- Proper sequencing is utilized including but not limited to proper use of follow/behind.
- Helicopter ground movements are issued IAW the standard.

#### 5.6.1 Session Checklist Items

- Can connect to CRC on an active position (sweatbox)
- Properly establish and communicate two-way radio communication
- Can explain parts of the clearance
- Issues clearances using prescribed phraseology
- Identifies flight plan altitudes which do not correspond with NEODD/SWEVEN

- Identifies, compares and contrasts at minimal the differences between VOR and area Navigation
- Ensures flight plans are in compliance with restrictions regarding navigation type by identifying /A, /G and /L
- Issues VFR Class Bravo clearance including discrete beacon code
- Can fully decode a METAR including: Station identification, Time observation was made, Wind (including variable, gusts), Altimeter setting, Temperature & Dew point (and explains relation-ship), Identified cloud types and when a ceiling is present
- Processes amendments to flight plan
- Identifies errors in flight plans and corrects them
- Identifies four types of SIDs Defines pilot nav, radar nav and hybrid nav SIDs
- Ensures read back is correct with prescribed phraseology
- Informs pilot of ATIS if they do not call in with it along with runway and altimeter setting as needed
- Defines movement and non-movement areas
- Issues taxi instructions to an active runway utilizing prescribed phraseology
- Issues taxi to a runway for an intersection departure using prescribed phraseology

Upon Completion of the lessons and successful Sweatbox and LIVE sessions, the Instructor will issue S1 rating for all HCF facilities.

# 6 Student 2 Training

# 6.1 S1 Lesson 1

- Runway Selection
- Landing Clearances
- Wake Turbulence
- Special VFR
- Land and Hold Short
- Traffic Pattern
- Helicopter Operations
- Line-up and Wait
- Intersection Departures
- Line-up and wait procedures are properly utilized IAW the standards 7110.65
- Intersection departures are conducted IAW the standards 7110.65
- Wake turbulence separation is adhered to

## 6.1.1 Runway Selection

Select the runway most nearly aligned with the wind when 5 knots or more or the "calm wind" runway when less than 5 knots unless use of another runway:

- 1. Will be operationally advantageous, or
- 2. Is requested by the pilot.

**TAILWIND COMPONENTS** - When authorizing use of runways and a tailwind component exists, always state both wind direction and velocity.

# 6.1.2 Landing Clearances

When issuing a clearance to land, first state the runway number followed by the landing clearance. If the landing runway is changed, controllers must preface the landing clearance with "Change to runway" followed by the runway number.

Controllers must then restate the runway number followed by the landing clearance.

PHRASEOLOGY: "RUNWAY (number) CLEARED TO LAND." Or "CHANGE TO RUNWAY (number, RUN-WAY (number) CLEARED TO LAND."

#### 6.1.3 Takeoff Clearances

When issuing a clearance for takeoff, first state the runway number followed by the takeoff clearance.

PHRASEOLOGY: RUNWAY (number), CLEARED FOR TAKEOFF.

EXAMPLE: "RUNWAY TWO SEVEN, CLEARED FOR TAKEOFF."

#### 6.1.4 Wake Turbulence

Apply wake turbulence procedures to an aircraft operating behind another aircraft when wake turbulence separation is required. Separate aircraft taking off by

- 1. Heavy, large, or small behind super 3 minutes.
- 2. Heavy, large, or small behind heavy 2 minutes.
- 3. Small behind B757 2 minutes.

**SAME RUNWAY SEPARATION** - Separate a departing aircraft from a preceding departing or arriving aircraft using the same runway by ensuring that it does not begin takeoff roll until:

- 1. The other aircraft has departed and crossed the runway end or turned to avert any conflict.
- 2. A preceding landing aircraft is clear of the runway.
  - When only Category I aircraft are involved-3,000 feet.
  - When a Category I aircraft is preceded by a Category II aircraft-3,000 feet.
  - When either the succeeding or both are Category II aircraft-4,500 feet.
  - When either is a Category III aircraft-6,000 feet.
  - When the succeeding aircraft is a helicopter, visual separation may be applied in lieu of using distance minima.
  - CATEGORY I small single-engine propeller driven aircraft weighing 12,500 lbs. or less, and all helicopters.
  - CATEGORY II small twin-engine propeller driven aircraft weighing 12,500 lbs. or less.
  - CATEGORY III all other aircraft.

#### 6.1.5 SVFR Operations

#### SVFR operations in weather conditions less than basic VFR minima are authorized:

REFERENCE- FAA Order JO 7110.65, Para 2-1-4, Operational Priority.

- At any location not prohibited by 14 CFR Part 91, Appendix D or when an exemption to 14 CFR Part 91 has been granted and an associated LOA established. 14 CFR Part 91 does not prohibit SVFR helicopter operations.
- Only within the lateral boundaries of Class B, Class C, Class D, or Class E surface areas, below 10,000 feet MSL.
- Only when requested by the pilot.
- On the basis of weather conditions reported at the airport of intended landing/departure.
- When weather conditions are not reported at the airport of intended landing/departure and the pilot advises that VFR cannot be maintained and requests SVFR.
- SVFR operations may be authorized for aircraft operating in or transiting a Class B, Class C, Class D, or Class E surface area when the primary airport is reporting VFR but the pilot advises that basic VFR cannot be maintained

# 6.1.6 Land And Hold Short (LAHSO)

An aircraft may be authorized to takeoff from one runway while another aircraft lands simultaneously on an intersecting runway or an aircraft lands on one runway while another aircraft lands simultaneously on an intersecting runway, or an aircraft lands to hold short of an intersecting taxiway or some other predetermined point such as an approach/departure flight path using procedures specified in the current LAHSO directive. The procedure must be approved by the air traffic manager and be in accordance with a facility directive. The following conditions apply:

A simultaneous takeoff and landing operation must only be conducted in VFR conditions.

Instruct the landing aircraft to hold short of the intersecting runway being used by the aircraft taking off. In the case of simultaneous landings and no operational benefit is lost, restrict the aircraft of the lesser weight category (if known). LAHSO clearances must only be issued to aircraft that are listed in the current LAHSO directive, whose Available Landing Distance (ALD) does not exceed the landing distance requirement for the runway condition.

#### PHRASEOLOGY: HOLD SHORT OF RUNWAY (runway number), (traffic, type aircraft or other information).

Issue traffic information to both aircraft involved and obtain an acknowledgment from each. Request a read back of hold short instructions when they are not received from the pilot of the restricted aircraft

Issue the measured distance from the landing threshold to the hold short point rounded "down" to the nearest 50-foot increment if requested by either aircraft.

There is no tailwind for the landing aircraft restricted to hold short of the intersection. The wind may be described as "calm" when appropriate.

The aircraft required landing distances are listed in the current LAHSO directive.

## 6.1.7 Traffic Pattern

Airport traffic patterns are developed to ensure that air traffic is flown into and out of an airport safely. Each airport traffic pattern is established based on the local conditions, including the direction and placement of the pattern, the altitude at which it is to be flown, and the procedures for entering and exiting the pattern. A traffic pattern consists of an upwind, crosswind, downwind, base, and final leg.

To separate traffic in the traffic pattern there are several options you have.

- Extend a leg of the pattern.
- Left/Right 360's
- Make a Right/Left 270 on base
- Make short approach
- Follow traffic

#### 6.1.8 Helicopter Operations

**HELICOPTER TAKEOFF CLEARANCE FROM MOVEMENT AREA** - Issue takeoff clearances from movement areas other than active runways or in diverse directions from active runways, with additional instructions as necessary. Whenever possible, issue takeoff clearance in lieu of extended hover-taxi or air-taxi operations.

PHRASEOLOGY: (Present position, taxiway, helipad, numbers) MAKE RIGHT/LEFT TURN FOR (direction, points of compass, heading, NAVAID radial) DEPARTURE/DEPARTURE ROUTE (number, name, or code), AVOID (aircraft/ vehicles/personnel), or REMAIN (direction) OF (active runways, parking areas, passenger terminals, etc.). CAUTION (power lines, unlighted obstructions, trees, wake turbulence, etc.). CLEARED FOR TAKEOFF.

**HELICOPTER TAKEOFF FROM NON-MOVEMENT AREA** - If takeoff is requested from non-movement areas, an area not authorized for helicopter use, or an area off the airport, and, in your judgment, the operation appears to be reasonable, use the following phraseology instead of the takeoff clearance

#### PHRASEOLOGY: DEPARTURE FROM (requested location) WILL BE AT YOUR OWN RISK (additional instructions, as necessary). USE CAUTION (if applicable).

**HELICOPTER LANDING CLEARANCE AT MOVEMENT AREA** - Issue landing clearances to helicopters going to movement areas other than active runways or from diverse directions to points on active runways, with additional instructions as necessary. Whenever possible, issue a landing clearance in lieu of extended hover-taxi or air-taxi operations.

PHRASEOLOGY: MAKE APPROACH STRAIGHT-IN/CIRCLING LEFT/ RIGHT TURN TO (location, runway, taxiway, helipad, Maltese cross) ARRIVAL/ARRIVAL ROUTE (number, name, or code). HOLD

# SHORT OF (active runway, extended runway center line, other). REMAIN (direction/distance; e.g., 700 feet, 1 1/2 miles) OF/FROM (runway, runway center line, other helicopter/ aircraft). CAUTION (power lines, unlighted obstructions, wake turbulence, etc.). CLEARED TO LAND

**HELICOPTER LANDING AT NON-MOVEMENT AREA** - If landing is requested to non-movement areas, an area not authorized for helicopter use, or an area off the airport, and, in your judgment, the operation appears to be reasonable, use the following phraseology instead of the landing clearance

PHRASEOLOGY: LANDING AT (requested location) WILL BE AT YOUR OWN RISK (additional instructions, as necessary). USE CAUTION (if applicable).

\*\*NOTE Utilize the non-movement phraseology if the helicopter is landing/departing an area off airport but within the controlled boundary of the tower. \*Example if it is a medical helicopter lifting off or landing at a hospital.

#### 6.1.9 Line-Up And Wait (LUAW)

The intent of LUAW is to position aircraft for an imminent departure. Authorize an aircraft to line up and wait, except as restricted (REFERENCE- FAA Order JO 7110.65, Para 3-9-4. LINE UP AND WAIT), when takeoff clearances cannot be issued because of traffic. Issue traffic information to any aircraft so authorized. Traffic information may be omitted when the traffic is another aircraft which has landed on or is taking off the runway and is clearly visible to the holding aircraft.

Do not use conditional phrases such as "behind landing traffic" or "after the departing aircraft." First state the runway number followed by the line-up and wait clearance.

#### PHRASEOLOGY: RUNWAY (number), LINE UP AND WAIT.

When an aircraft is authorized to line up and wait, inform it of the closest traffic within 6-flying miles requesting a full-stop, touch-and-go, stop-and- go, option, or unrestricted low approach to the same runway

Do not issue a landing clearance to an aircraft requesting a full-stop, touch-and-go, stop-and-go, option, or unrestricted low approach on the same runway with an aircraft that is holding in position or taxiing to line up and wait until the aircraft in position starts takeoff roll.

# PHRASEOLOGY: RUNWAY (number), CONTINUE, TRAFFIC HOLDING IN POSITION, or RUNWAY (number) (pattern instructions as appropriate) TRAFFIC HOLDING IN POSITION.

Do not authorize an aircraft to LUAW if an aircraft has been cleared to land, touch-and-go, stop-and-go, option, or unrestricted low approach on the same runway.

Do not authorize aircraft to simultaneously line up and wait on the same runway, between sunrise and sunset, unless the local assist/local monitor position is staffed.

When aircraft are authorized to line up and wait on runways that intersect, traffic must be exchanged between that aircraft and the aircraft that is authorized to line up and wait, depart, or arrive to the intersecting runway(s).

When authorizing an aircraft to line up and wait at an intersection, state the runway intersection.

PHRASEOLOGY: RUNWAY (number) AT (taxiway designator), LINE UP AND WAIT.

#### 6.1.10 Intersection Departures

When clearing an aircraft for takeoff from an intersection, state the runway intersection.

PHRASEOLOGY: RUNWAY (number) AT (taxiway designator) CLEARED FOR TAKEOFF.

# 6.2 S2 Lesson 2

- Identifies all airspace classes
- Identifies landing and departing runway
- Landing clearances include wind information when necessary
- Necessary traffic information is given as needed
- Wake turbulence advisories are given as needed
- Defines all parts of VFR traffic pattern.
- Helicopter ground movements are issued IAW the standard
- Helicopter departures at ramp and runway are handled
- VFR aircraft are cleared for the option with or without limitations
- No runway incursions occur
- VFR aircraft in the traffic pattern are adequately spaced
- Defines all parts of the VFR Traffic Pattern
- Defines all part of the Option

# 6.3 S2 Lesson 3

- 1. Weather and Runway Use
  - Properly decodes METAR and TAF.
  - Identifies landing and departing runway.

#### 2. Runway Operations

- Take-off clearances are issued IAW the standards 7110.65
- LUAW is utilized IAW the standards 7110.65
- Intersection departures are conducted IAW the standard
- Same runway separation is adhered to
- Wake turbulence separation is adhered to
- Landing clearances are issued IAW the standards 7110.65 and include wind information as necessary
- Go-Around clearances are properly given and coordinated as necessary
- Side-step/change to clearances are properly given
- Necessary traffic information is given
- Wake turbulence advisories are given as needed
- LAHSO is properly utilized
- VFR aircraft in traffic pattern are spaced adequately
- VFR aircraft are cleared for the option with or without limitations
- Helicopter departures at ramp and runways are completed IAW the standards 7110.65

#### 3. Coordination

- Ensures relief briefing was understood.
- Properly coordinates runway crossings.
- Transfers control and communications of aircraft in a timely manner.
- Communications are done in a professional manner.
- Only gives communications when necessary.

- Effective working speed is maintained.
- Manages Frequency.
- Conducts relief briefing at end of exam properly.

# 6.4 S2 Lesson 4

The objective of this lesson is to identify the active runway according to SOP's, issue takeoff and landing clearances.

# 6.4.1 S2 Lesson 4 – Session Checklist Items

- Line-up and wait procedures and phraseology are properly utilized IAW the standard Intersection departures are conducted IAW the standard Wake turbulence separation is adhered to
- Issues Take Off Clearances with winds and departure headings if necessary.

# 6.5 S2 Lesson 5

The objective of this lesson is to begin working within HNL Tower delegated airspace, VFR operations, traffic pattern, and helicopters. This lesson is to ensure understanding of clearances and departing IFR traffic. This will also ensure the understanding of airspace, introduce landing clearances, and arrival taxing.

#### 6.5.1 S2 Lesson 5 – Session Checklist Items

- Identifies all airspace classes
- Identifies landing and departing runway
- Clearance issuance
- At least 90% of IFR clearances contain no errors
- At least 90% of VFR clearances contain no errors
- Read back and hear back is assured
- No runway incursions occur.
- No multiple runway crossings are issued
- Aircraft are squawking altitude encoding prior to take-off
- Proper sequencing is utilized including but not limited to departure sequencing, and proper giveway/follow instructions
- Landing clearances include wind information when necessary
- Necessary traffic information is given as needed
- Wake turbulence advisories are given as needed
- Defines all parts of VFR traffic pattern.
- Helicopter ground movements are issued IAW the standard
- Helicopter departures at ramp and runway are handled
- VFR aircraft are cleared for the option with or without limitations
- VFR aircraft in traffic pattern are adequately spaced

# 6.6 S2 Lesson 6

At the completion of this lesson the CIT student should be at a level to complete the S2 OTS rubric for Solo Certification with minimal errors at the HNL TWR.

6.6.1 S2 Lesson	6 – Session Checklist Items
Theory	<ol> <li>Demonstrates knowledge of the Local Control duties and responsibilities.</li> <li>Defines all parts of the VFR Traffic Pattern</li> <li>Defines all part of the Option</li> </ol>
Practical	<ol> <li>Weather and Runway Use         <ul> <li>Properly decodes METAR and TAF.</li> <li>Identifies landing and departing runway.</li> </ul> </li> <li>Runway Operations         <ul> <li>Take-off clearances are issued IAW the standard.</li> <li>LUAW is utilized IAW the standard.</li> <li>Intersection departures are conducted IAW the standard.</li> <li>Same runway separation is adhered to.</li> <li>Wake turbulence separation is adhered to.</li> <li>Landing clearances are issued IAW the standard and include wind information as necessary.</li> <li>Go-Around clearances are properly given and coordinated as necessary.</li> <li>Side-step/change to clearances are properly given.</li> <li>Necessary traffic information is given.</li> <li>Wake turbulence advisories are given as needed.</li> <li>LAHSO is properly utilized.</li> <li>VFR in traffic pattern are spaced adequately.</li> <li>VFR aircraft are cleared for the option with or without limitations.</li> <li>Helicopter departures at ramp and runways are completed IAW the standard.</li> </ul> </li> <li>Coordination         <ul> <li>Ensures relief briefing was understood.</li> <li>Conducts relief briefing at end of exam properly.</li> <li>Properly coordinates runway crossings.</li> <li>Transfers control and communications of aircraft in a timely manner.</li> <li>Only gives communications when necessary.</li> <li>Effective working speed is maintained.</li> <li>Manages Frequency.</li> </ul> </li> </ol>

# 7 Student 3 Radar Training

# 7.1 S3 Lesson 1

Below is the guideline of which the CIT student training will be completed to ensure competency for the S3 rating. MTR/INS will help guide the CIT student through the units and lessons to help teach the CIT student the information needed to become an effective controller as well as comply with the VATSIM GCAP, VATUSA training guideline, and the S3 OTS Rubric.

# 7.1.1 Class D Service

A class D airport can have an approach position. Hilo is an example of a class D that has a TRACAB, but is not identified on a sectional. The approach sector provides approach services to aircraft within the approach airspace. One main thing about a TRSA is that VFR participation is OPTIONAL. VFR aircraft are NOT REQUIRED to contact the approach controller outside the D and inside the TRSA.

# 7.1.2 Class C Service

- Provide Class C services to all aircraft operating within Class C airspace.
- Provide Class C services to all participating aircraft in the outer area.
- Class C services include the following:
  - Sequencing of all aircraft to the primary airport.
  - Standard IFR services to IFR aircraft.
  - Separation, traffic advisories, and safety alerts between IFR and VFR aircraft.
  - Traffic advisories and safety alerts between VFR aircraft.

## 7.1.3 VFR Aircraft Separation

- TRSA and Class C- Separate VFR aircraft from VFR/IFR aircraft by any one of the following
- Visual separation
- 500 feet vertical separation.
- Class B VFR aircraft must be separated from VFR/IFR aircraft/ helicopter/rotor craft that weigh more than 19,000 pounds and turbojets by no less than: 1 1/2 miles separation, or 500 feet vertical separation, or Visual separation.
- VFR aircraft must be separated from all VFR/IFR aircraft which weigh 19,000 pounds or less by a minimum of: 500 feet vertical separation, or Visual separation

# 7.1.4 Radar Identification

• Identify a primary, radar beacon, or ADS-B target by using one of the following methods:

- Observing a departing aircraft target within 1 mile of the takeoff runway end at airports with an operating control tower, provided one of the following methods of coordination is accomplished.
- Observing a target whose position with respect to a fix (displayed on the video map, scribed on the map overlay, or displayed as a permanent echo) or a visual reporting point (whose range and azimuth from the radar antenna has been accurately determined and made available to the controller) corresponds with a direct position report received from an aircraft, and the observed track is consistent with the reported heading or route of flight. If a TACAN/VORTAC is located within 6,000 feet of the radar antenna, the TACAN/VORTAC may be used as a reference fix for radar identification without being displayed on the video map or map overlay.
- Observing a target make an identifying turn or turns of 30 degrees or more
- Request the pilot to activate the "IDENT" feature of the transponder/ADS-B and then observe the identification display.
- Request the pilot to change to a specific discrete or non-discrete code, as appropriate, and then observe the target or code display change. If a code change is required in accordance with Section 2, Beacon/ADS-B Systems, of this chapter, use the codes specified therein.
- Request the pilot to change their transponder/ ADS-B to "standby." After you observe the target disappear for sufficient scans to assure that loss of target resulted from placing the transponder/ADS-B in "standby" position, request the pilot to return the transponder to normal operation and then observe the reappearance of the target.

#### 7.1.5 Minimum Altitudes

- MVA Minimum Vectoring Altitude
- MIA Minimum Instrument Altitude
- MSA Minimum Safe Altitude
- MEA Minimum Enroute Altitude

# 7.2 S3 Lesson 2

# 7.2.1 One-In One-Out Rule

Uncontrolled fields are only allowed to have one instrument arrival or departure at a time. Other IFR traffic for the airport where the clearance is issued is suspended until the aircraft has contacted ATC or until 30 minutes after the clearance void time or 30 minutes after the clearance release time if no clearance void time is issued.

Once an aircraft is cleared for an approach and switched to advisory, they only have 30 minutes to cancel their IFR flight plan. You cannot release another IFR departure from the field or clear another IFR arrival into the field until the cancellation is received.

The correct phraseology for an arrival is "(Call sign) NO OBSERVED TRAFFIC BETWEEN YOU AND THE (XXX) AIRPORT. RADAR SERVICE TERMINATED. REPORT CANCELLATION OF IFR IN THE AIR OR ON THE GROUND ON THIS FREQUENCY. FREQUENCY CHANGE APPROVED to CTAF"

For aircraft that pickup their IFR clearance on the ground utilize the phrase **AS FILED** as much as applicable. Ensure at the end of every clearance you utilize **HOLD FOR RELEASE**. "Hold for release" instructions must be used when necessary to inform a pilot or a controller that a departure clearance is not valid until additional instructions are received.

When releasing a departure utilize the following phraseology:

"(ACFT CALLSIGN), RELEASED FOR DEPARTURE AT (TIME), CLEARANCE VOID IF NOT OFF BY (CLEARANCE VOID TIME), IF NOT OFF BY (CLEARANCE VOID TIME), ADVISE HNL CTR NOT LATER THAN (TIME) OF INTENTIONS."

## 7.2.2 Approach Charts

It is very important that every controller understands how approach charts work. Without an understanding of how approach charts work then you cannot control effectively. Below is a list of items you should understand by the end of this section after reviewing charts with your MTR/INS.

- Feeder fixes
- Initial Approach Fixes
- Procedure turns and when they are not applicable
- MSA's Minimum Safe Altitudes
- TAA's Terminal Arrival Areas

## 7.2.3 Pop-Up IFR

Aircraft are not required to pick up an IFR flight plan on the ground. Aircraft can pick up an IFR flight plan in the air if they encounter less than VFR weather, if they end up wanting to proceed IFR, or depart a controlled airport VFR with a filed IFR flight and pick up the flight plan in the air. When a pilot does

this instruct the pilot the MAINTAIN VFR and issue them a squawk code same as for flight following. When able ask applicable information to fill out the flight plan if not filed and clear them normally except no expected altitude or squawk. Example *"N123AB cleared to Kona via direct maintain 4,000"* 

# 7.2.4 APPROACH PHRASEOLOGY

How to clear onto the final approach course.

Three miles from final approach fix. Turn left heading zero one zero. Maintain two thousand until established on the localizer. Cleared I–L–S runway three six approach.

How to clear from an IAF or feeder fix.

Cross XXX at or above XXX cleared RNAV runway 17 approach.

Three miles from XXX cleared ILS runway 17C approach. (If already on an approach segment.)

#### 7.2.5 Holding

Aircraft may have to hold for a variety of reason. They may have to burn off fuel, there may be an aircraft already cleared into the uncontrolled field, there may be traffic delays at the destination, the weather may be shifting and have to frequency, they may have an issue, or maybe they just request to hold.

CLEARED TO (fix), HOLD (direction), AS PUBLISHED, EXPECT FURTHER CLEARANCE (time)

# 7.3 S3 Lesson 3

#### 7.3.1 S3 Lesson 3 – Checklist Items

- Demonstrates knowledge of the radar controller with respect to the TRACON airspace
- Explains IFR/VFR, IFR/IFR, and VFR/VFR separation minima in class B, C, and D airspace
- Explains the various symbology on departure, arrival, and approach chart/plates
- Identifies crossing restrictions
- Identifies and defines IAF, MAP, and FAF
- Explains the difference between precision and non-precision approaches
- Holding fix and alternate holding fix identifies on one instrument approach plate
- Establishes radar contact with aircraft using proper phraseology and technique (including vectoring at or above MVA)
- Aircraft are given weather, altimeter and approach to expect as necessary
- States what the one-in/one-out rule is and where it is applicable
- Defines what an MVA, MIA and MSA is.
- Clears pop-up IFR aircraft without error
- Departures are vectored onto departure routing as necessary
- Utilizes APREQ and point-outs properly
- Holding clearances are issued with proper phraseology
- Holding clearances are cancelled with proper phraseology
- Traffic call-outs and traffic alerts are given using prescribed phraseology (including proper application of visual separation)
- Aircraft are separated and sequenced without loss of separation or airspace violations\*
- Positive control is maintained
- Approach clearances are given using proper phraseology
- ILS approach
- RNAV approach
- Visual approach (charted visual#)

Facility Training Order

- Airspace is effectively utilized and managed
- Continued practice on weak areas

# 7.4 S3 Lesson 4

This lesson will be used for OTS preparation and ensure that all items below have been covered and completed satisfactorily. At the completion of this lesson the CIT student should be at a level to complete the S3 OTS rubric for Solo Certification with minimal errors at HCF APP.

#### 7.4.1 Theory

- Demonstrates knowledge of the radar controller with respect to the TRACON airspace
- Explains IFR/VFR, IFR/IFR, and VFR/VFR separation minima in class B, C, and D airspace
- States what the one-in/one-out rule is and where it is applicable
- Defines what an MVA, MIA and MSA is.
- Explains the various symbology on departure, arrival, and approach chart/plates
- Identifies crossing restrictions
- Identifies and defines IAF, MAP, and FAF
- Explains the difference between precision and non-precision approaches
- Holding fix and alternate holding fix identifies on one instrument approach plate

#### 7.4.2 Practical

- Clears pop-up IFR aircraft without error
- Establishes radar contact with aircraft using proper phraseology and technique (including vectoring at or above MVA)
- Aircraft are separated and sequenced without loss of separation or airspace violations
- Positive control is maintained
- Aircraft are given weather, altimeter and approach to expect as necessary
- Traffic call-outs and traffic alerts are given using prescribed phraseology (including proper application of visual separation)
- Approach clearances are given using proper phraseology
- ILS approach
- RNAV approach
- Visual approach (charted visual#)
- Departures are vectored onto departure routing as necessary

- One-in/one-out rule is not violated
- Holding clearances are issued with proper phraseology
- Holding clearances are cancelled with proper phraseology
- Airspace is effectively utilized and managed
- Utilizes APREQ and point-outs properly

# 8 C1 Training – Center

Below is the checklist of which the C1 training will be completed to ensure competency for the C1 rating. MTR/INS will help guide the CIT student through the units and lessons to help teach the CIT student the information needed to become an effective controller as well as comply with the VATSIM GCAP, VATUSA training guideline, and the C1 OTS Rubric.

The C1 rating is a larger scale S3 rating. It involves more airspace and more airports. The foundation of the C1 rating is very much the same as S3. This rating will consist of primarily online training with HCF Center airspace.

# 8.1 C1 Lesson 1

## 8.1.1 Standard Terminal Arrival Procedures (STARS)

There are several things that we want to note on STARS that can make an enroute controller job easier.

#### The first part is utilizing descend via clearances.

- If a STAR has crossing restrictions, then you can instruct an aircraft to descend via the arrival.
- However, if an arrival has a crossing that says "expect" then you must not issue descend via and instead go by SOP's or you can issue the crossing restriction.
- If arrivals do not have crossing restrictions, then the controller should go by the SOP for descents.
- All aircraft should be routed onto STARS if able. This will help ensure that traffic flows into the airport in a consistent stream and help with separation of traffic.

#### 8.1.1.1 How to space aircraft

- When spacing aircraft there is numerous ways you can do this.
- The most common way is to space aircraft by adjusting their airspeed.
- Changing by Mach .01 up or down can help make small changes.
- However, if you need to make larger changes you can have the pilots turn left/right 30+ degrees as needed to create additional spacing.

#### 8.1.1.2 Descent Instructions.

- Aircraft should be given descent instructions in accordance with their STAR.
- Be careful not to issue descents too early as aircraft could end up burning too much fuel being down lower.
- You also should be careful not to descend aircraft too late and end up causing them to be too high.
- Another thing to keep in mind when giving descent instructions is crossing traffic.

• Ensure that the descent instruction will not put them in conflict with another aircraft.

#### 8.1.1.3 Oceanic Clearance.

- HCF Center contacts Oakland Oceanic with an oceanic clearance request at-least 15 minutes prior to the HCF border. "AAL118 CEBEN 2312z FL350 Mach .82" (Call sign - Fix entering oceanic -Time at fix-Cruise Altitude-Speed)
- He either accepts or gives you a new Zulu time
- At-least 5 minutes prior to the TCP, "Radar service terminated, squawk 2000 contact Oakland Oceanic with a position report".

#### 8.1.2 C1 CHECKLIST ITEMS

- THEORY
  - Demonstrates knowledge of the radar controller with respect to the enroute airspace
  - Explains IFR/IFR separation minima in class A airspace (including super)
  - Provides hazardous weather information example using proper phraseology
- PRACTICAL
  - Descents are given IAW the type of STAR
  - Establishes radar contact with aircraft using proper phraseology and technique (including vectoring at or above MVA)
  - Aircraft are separated and sequenced without loss of separation or airspace violations
  - Positive control is assured
  - Aircraft are given altimeter setting as necessary
  - Traffic call-outs, crossing traffic, low altitude alerts, and traffic alerts are given using prescribed phraseology (including proper application of visual separation outside of class A airspace)
  - Descents are given in a timely manner
  - Vectoring for sequencing and/or separation (Enroute)
  - Vectoring for sequencing and/or separation to Airport finals
  - IFR Clearances from Uncontrolled airports
  - Uncontrolled airports. One-In/One-Out
  - Pop-Up IFR flights (clearances)

- IFR cancellations
- VFR Flight following
- VFR On-Top
- Holding clearances are issued with proper phraseology
- Holding clearances are cancelled with proper phraseology
- Airspace is effectively utilized and managed
- Ensures relief briefing was understood
- Conducts relief briefing at end of exam properly
- Utilizes APREQ and point-outs properly
- Properly transfers control of aircraft when required
- Communications are done in a professional manner
- Only gives communications when necessary
- Effective working speed is maintained
- Manages frequency