

West Coast ATC Center PCG

Course Objective: Trainee will learn the responsibilities and functions of the Center/Enroute Position at WestCoastATC.

Time Limits For General Knowledge Training	
Apprentice Controller:	Training Time
	Instructional Time: 30 minutes
	Practical Application: 1 hour and 30 minutes

Center / Enroute Control

- Overview of the Center position
- Altimeter Settings
- Coordination
- Lowest Usable Altitudes
- Decent Procedures
- Departure Procedures
- Airspace procedures from uncontrolled Airports
- Transfer of Control/Communications

Overview of the Departure Control Function

TR: [WCATC 7110.65 Chapter 6](#)

Objective:	The trainee must understand the responsibilities of the Departure Control position and how it is utilized at WestCoastATC.
-------------------	--

A Center or En-route Controller's responsibility is to provide ATC services to aircraft operating on IFR/VFR flight plans within controlled airspace normally during the en-route phase of the aircraft's flight. Center Controllers sometimes control smaller airports where a terminal facility is not in the immediate area and thus would perform the function of an Approach Control.

As a center controller separation between aircraft is a major responsibility. In the center position, unlike any other position, controllers are restricted in the methods of separation they may use to separate aircraft merely because the fact that most of these aircraft are en-route. They are already established on their course and are following their assigned flight plans. Thus any deviation from the assigned course (unless an emergency) should be avoided.

Altimeter Settings

TR: [WCATC 7110.65 Chapter 6](#)

Objective: The trainee must understand how and when to issue the Altimeter to an aircraft.

As the Center controller, one of your responsibilities is to ensure the aircraft has the correct Altimeter. Issue the altimeter to arrivals when 50 NM from their destination if there is no approach control or if the approach position is not manned. The altimeter that you give them should be the airport's altimeter in which they are landing at. You also issue the Altimeter to Enroute aircraft below flight level 180 or any time you issue descent below the lowest usable flight level. Use the altimeter that is at the airport closest to the aircraft's position.

When you issue the altimeter ensure that you state the airport in which you retrieved the Altimeter from.

Example –

“N12345, Memphis Altimeter, 2992”

Coordination

[TR: WCATC 7110.65 Chapter 6](#)

Objective: The trainee must understand the proper way to coordinate with other positions in the WestCoastATC Airspace system.

As a Center Controller you can be coordinating with several positions through out a session. The key is to be clear, professional, and ensure that what ever is said is understood. Things that should be coordinated with other positions are:

- The current ATIS code (CD)
- Traffic (APP)
- Handoffs (APP)

You should use the same format that you learned in the General Knowledge course when coordinating with other positions. Here are some sample terms that are used when coordinating between positions:

a. Handoff. An action taken to transfer the radar identification of an aircraft from one controller to another controller if the aircraft will enter the receiving controller's airspace and radio communications with the aircraft will be transferred.

b. Point Out. A physical or automated action taken by a controller to transfer the radar identification of an aircraft to another controller if the aircraft will or may enter the airspace or protected airspace of another controller and radio communications will not be transferred.

c. Point Out Approved. The term used to inform the controller initiating a point out that the aircraft is identified and that approval is granted for the aircraft to enter the receiving controller's airspace, as coordinated, without a communications transfer or the appropriate automated system response.

d. Traffic. A term used to transfer radar identification of an aircraft to another controller for the purpose of coordinating separation action.

f. Traffic Observed. The term used to inform the controller issuing the traffic restrictions that the traffic is identified and that the restrictions issued are understood and will be complied with.

You are also going to want to coordinate the position and altitude in which the Approach controller and you want handoffs to take place for arrivals and departures.

Lowest Usable Altitudes

[TR: WCATC 7110.65 Chapter 6, FAAO 7110.65 Chapter 4 section 5-4](#)

Objective: The trainee must understand what the lowest usable altitude in which he can assign depending on the altimeter.

If a change in atmospheric pressure affects a usable flight level in your area of jurisdiction, use the chart below to determine the lowest usable flight level to clear aircraft at or above 18,000 feet MSL

Lowest Usable Flight Level

Altimeter Setting	Lowest Usable FL
29.92" or higher	180
29.91" to 28.92"	190
28.91" to 27.92"	200

Center Altitude Separation

[TR: WCATC 7110.65 Chapter 6, FAAO 7110.65 Chapter 5 section 5all](#)

Objective: The trainee must understand the proper separation that is required while aircraft are operating inside of the Center Airspace.

As a Center Controller you are responsible for a larger amount of airspace and therefore actually have different separation minimums when it comes to altitudes and distances.

Vertical separation standards at the Enroute level are:

- Up to and including Flight Level 290 - 1,000 feet.
- Above Flight Level 290 - 2,000 feet.
- Above Flight Level 600 between military aircraft - 5,000 feet.

Distances separation standards at the Enroute level are:

- Below Flight Level 600- 5 NM.
- At or above Flight Level 600- 10 NM

Decent Procedures

[TR: WCATC 7110.65 Chapter 6](#)

Objective: The trainee must understand the proper decent procedures and how to apply them to aircraft operating in their airspace.

One of the major responsibilities as a Center Controller is to ensure the proper decent of an aircraft. One of the most common mistakes by controllers is a late decent and causes major issues as the pilot moves closer to the airport. So here is a technique that is used pretty standard to get you started until you are more proficient at planning the aircrafts decent.

This method is applied from either the current cruising altitude or the final requested altitude if they have not reached that altitude yet. This is called “BR’s Law of Enroute Decent”

Subtract the airport elevation of the Destination airport filed (rounded to the nearest 1000 feet)

Then remove the thousands from the number to make it easier on the math.

Multiply the number by 4

The number you have after that would be the miles out when you should start the aircrafts decent.

Here is an example:

- a. Airport elevation - 1353 (round to 1000)
- b. Aircraft altitude – 39,000 feet (FL390)
- c. $39,000 - 1,000 = 38,000$
- d. Remove the last three 000’s = 38
- e. $38 \times 4 = 152$

So if you have an aircraft inbound to this airport that is at FL390 you should start his decent around 152 miles away.

Departure Procedures

[TR: WCATC 7110.65 Chapter 6](#)

Objective: | The trainee must understand the procedures when handling a departing aircraft.

As a center controller you will receive the IFR aircraft at either a specified point on a departure procedure or when it is reaching your horizontal or vertical boundaries. As the center controller you will ensure that the aircraft is either already or vectored to intercept there filed flight plan course.

Advise the pilot to proceed on course or you may issue a heading to intercept a point in the filed flight plan.

Example –

(Callsign) (Center Name) Center proceed on course, resume own navigation, or fly heading XXX.

N12345, Memphis Center, fly heading 120 to intercept the J40 enroute to Holly VOR.

Airspace procedures from uncontrolled Airports

[TR: WCATC 7110.65 Chapter 6, FAAO 7110.65 Chapter 4 section 3all](#)

Objective: The trainee must understand the procedures that must be followed while controlling aircraft from a uncontrolled airport.

As a Center Controller there are many occasions when you will be responsible for the operations of airports that are either uncontrolled normally or are unmanned by a lower position.

Arrivals and departures at uncontrolled airports are usually handled as one in-one out as you are not supposed to be able to see the aircraft once he is on the runway. However with FSNAV you can watch the aircraft go all the way to parking so it is up to you on how that is applied.

As a Center controller as in other positions you can operate the other levels of ATC if you so chose. If not then they can just be switched to Unicom and sent on their way.

If you are issuing a clearance for a aircraft to depart from an uncontrolled airport then use the following phraseology:

"N12345 your departure is approved at pilots discretion, Clearance void if not off by 0230Z, if not off by 0230Z then advise center of your intentions.

Transfer of Control/Communications

[TR: WCATC 7110.65 Chapter 6](#)

Objective:	The trainee must understand the point in which he may transfer the control/communications of an aircraft to another controller or Unicom.
-------------------	---

When the aircraft is at a specified point or reaching the approach controllers airspace you shall transfer the communication of that aircraft to the approach controller.

6.4.1. (Callsign) Contact (Airport or Tracon Name) Approach on XXX.XX (include TS channel or this channel).

6.4.2. VAA_001 (Pronounced Allied One), Contact Memphis Approach on TS channel 128.15, Good flight.

If the adjacent airspace is uncontrolled or the aircraft is landing at a normally uncontrolled airport then you would tell the aircraft:

(Callsign) Radar Services terminated, resume own navigation, squawk VFR, advisory frequency change is approved Unicom 118.5.

VAA_001 (Pronounced Allied One), Radar Services terminated, resume own navigation, squawk VFR, advisory frequency change is approved Unicom 118.5, Good flight.