BY ORDER OF WEST COAST ATC
AIR TRAFFIC CONTROL *01 October 2007*

AIR TRAFFIC CONTROL OPERATIONS

WestCoastATC Standard Operating Procedures Version H

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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Pages: 37

This instruction implements procedures for all controllers inside the WestCoastATC organization. It prescribes air traffic control procedures, Administration operating procedures, and additional information related to the management of WestCoastATC ATC Division. It applies to all controllers and administrators assigned to WestCoastATC and its ATC division. This instruction supplements procedures contained in FAAO 7110.65 and supersedes all other regulations within WestCoastATC organization and its divisions.

Chapter 1

GENERAL INFORMATION

1.1. Enforceable Language. The words below will have the following meanings wherever they are used in this instruction:

1.1.1. "Shall" an action verb in the imperative sense, means a procedure is mandatory.

1.1.2. "Should" means a procedure is recommended.

1.1.3. "May" or "need not" means a procedure is optional.

1.2. Programs and Materials. The following is a list of programs and material all controllers shall use while operating at WestCoastATC.

1.2.1. FSNAV

1.2.2. FSHOST ATC Server

1.2.3. Microsoft Flight Simulator

1.2.4. Team Speak

1.2.5. MSN Messenger (latest version)

1.2.6. All appropriate charts and airport diagrams

1.2.7. Pen and Paper (optional)

1.2.8. Altitude/direction of flight reference sheet (optional)

1.2.9. ATC Flight plan document or Flight Progress document (optional)

1.3. Position Abbreviations/Identifiers. The following are the identifiers/abbreviations that will be used when signing on to the ATC Team Speak Channel. Please do not alter from these sign-ons. (XXX = the ARTCC that is opened)

1.3.1 Clearance Delivery…XXX_CD

1.3.2. Ground Control…XXX_GC

1.3.3. Local/Tower…XXX_TWR

1.3.4. Departure…XXX_DEP

1.3.6. Approach…XXX_APP

1.3.7. Arrival…XXX_ARR

1.3.8. Center…XXX_CTR

1.3.9. Student/Training…XXX_XX_Z (XX = whatever the position the trainee is in)

1.3.10. XXX_XX_XXX….In the event that one specific airspace or multiple positions are open of the same type. i.e. if Memphis Approach is open and Nashville Approach is open then one would be ZME_APP_MEM and the other would be ZME_APP_BNA

1.4. Pilot-Controller Communications. Pilots will acknowledge all ATC clearances and instructions IAW FAAO 7110.65. Unless otherwise specified or in use, utilize the following frequencies for each session. If other positions are open then you may select those channels not to conflict with the standard frequencies. If a position is combined use your best judgment on what frequency to utilize.

Unicom – 118.5
Clearance Delivery (CD) – 119.65
Ground Control (GC) – 121.7
Local/Tower (LC/Twr) – 124.50
Departure Control (Dep) – 125.45
Approach/Arrival (App/Arr) – 126.7
Center (Ctr) – 128.2

1.4.1. The frequency for UNICOM will be 118.5 regardless of what ARTCC is open. All aircraft not being controlled by ATC will be on UNICOM.

1.4.2. All Controllers will setup a whisper function set to the Unicom channel (118.5) in the event that you need a pilot to contact you, you will utilize the whisper function to notify them of what frequency to contact you on. This is imperative to keep from interfering with TS COM set and will help pilots know when they are entering your airspace.

1.4.3. Sample phraseology for this would be:

1.4.3.1. Callsign, Your facility, reason if needed, instruction to contact you on a frequency.

1.4.3.2. N12345, Memphis Center, You are entering my airspace, contact me 128.2.

1.5. WestCoastATC ATC Positions. Here is a basic overview of what each of the Air Traffic Control positions primary functions are:

1.5.1. Clearance Delivery (CD) – Clearance is the position that issues clearance that was filed by the pilots. It is the CD controller's responsibility at WestCoastATC to setup TS Channel info and start up the FSHost Server.

1.5.2. Ground Control (GC) - It is responsible for the airport "movement area", this includes all taxiways and some parking aprons. Any aircraft operating in these areas are required to have clearance from the ground controller and maintain two way radio communications while operating in these positions.

1.5.3. Local Control/Tower (TWR) – the Tower Controller is responsible for the active runway surfaces and movement areas. Local clears aircraft for take off or landing and ensures the runway is clear and safe during these operations. The Tower Controller also controls aircraft in the local area depending on the class of airspace they are in. VFR traffic patterns and practice approach fall under the Local Controllers area of responsibility.

1.5.4. Departure Control (DEP) – As a departure controller you control all IFR aircraft within your portion of the Approach Control's delegated airspace. The Departure controller ensures that the aircraft gets established on the correct course off departure and begins its climb to the aircrafts final altitude in a safe and expeditious manner.

1.5.5. Approach Control (APP) – An Approach Controller controls all IFR aircraft within the Terminal area's delegated airspace. This airspace will include the primary airport and may include other "satellite" or smaller airports. Approach provides vectors to the airport and issues approach clearances to those airports. An Approach controller also works with the Local controller and Departure controller to ensure a smooth flow of traffic in and out of all surrounding airports.

1.5.6. Center (CTR) – 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 aircrafts 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.

1.6. Automated Terminal Information Service (ATIS). The following are the items normally contained in an ATIS at WestCoastATC. It is the responsibility of the person performing the Clearance Delivery function to coordinate with the appropriate positions and then issue an ATIS message in the TS Channel 118.15.

1.6.1. The Clearance Delivery Controller will post the current ATIS information in the Channel Description box in the right side of TeamSpeak channel 118.5. The Clearance Delivery position will then notify all the controllers and the UNICOM Channel of the appropriate ATIS code. All Controllers will then make the following announcement to the pilots in their channel.

1.6.1.1. "Attention all pilots, Information "Alpha" now current, ATIS information in the right side of TeamSpeak, Channel 118.5.

1.6.2. Facility name, phonetic letter code, time of weather sequence (UTC)

1.6.3. Weather information consisting of ceiling, visibility, weather phenomenon, temperature, dew point, wind, altimeter, a density altitude advisory when appropriate, and other pertinent remarks.

1.6.4. Instrument approach and landing runway.

1.6.5. Departure runway(s) if different from landing runway(s)

1.6.6. Instructions for the pilot to acknowledge receipt of the ATIS message by informing the controller on initial contact.

1.6.7. Example:

"Little Rock National, Information Delta. one three four eight Zulu. Wind one eight zero at one zero. Visibility seven. Ceiling two thousand six hundred broken. Temperature one one. Dew point zero eight. Altimeter two niner niner two. Expect an ILS Runway Two Two Left Approach. Departing Runway Two Two Right. Advise controller on initial contact you have Delta.

Chapter 2

CLEARANCE DELIVERY

2.1. Flight Plan Management. The key to a successfully ran Clearance Delivery position is the ability to set your self up for success. When setting up the session the following needs to be accomplished:

2.1.1. The FSHost ATC Server should be opened at least 30 minutes prior to the session to allow members to pre-file their flight plans.

2.1.2. The Clearance Delivery Team Speak Channel shall be setup and include the standard TS CD information included in Appendix 1 to include the session password.

2.1.3. Using the Altitude/direction of flight reference sheet in Appendix 2, make sure that all filed flight plans have filed the correct altitude for their direction of flight.

2.1.4. Using the ATC Flight plan document or Flight Progress document in Appendix 3, copy down all filed flight plans and collect the appropriate weather for each airport.

2.2. Clearance Phraseology. The following are examples and standards of phraseology utilized in the Clearance Delivery position.

2.2.1. A standard IFR Departure clearance with a published departure procedure:

2.2.1.1. (Callsign) cleared to (Name of airport) via the (SID Name) then as filed…climb and maintain (altitude) expect (Final altitude) 10 minutes after departure, departure frequency XXX.XX squawk XXXX.

2.2.1.2. VAA_001 (Pronounced Allied One) is cleared to the Memphis International airport via the Titan 1 Departure then as filed…Climb and maintain 5000 expect FL 320 (pronounced Flight Level Three Two Zero) 10 minutes after departure, departure frequency 128.15 squawk 4232.

2.2.1.3. In the event that the airspace that the pilot is going to be flying in is uncontrolled use this phraseology: VAA_001 (Pronounced Allied One) is cleared to the Memphis International airport via the Titan 1 Departure then as filed…Climb and maintain 5000 after reaching 5000 resume own navigation, departure frequency 118.5 Unicom, squawk 4232.

2.2.2. A standard IFR Departure clearance without a published departure procedure:

2.2.2.1. (Callsign) cleared to (Name of airport) as filed…on departure fly (direction), climb and maintain (altitude) expect (Final altitude) 10 minutes after departure, departure frequency XXX.XX squawk XXXX.

2.2.2.2. VAA_001 (Pronounced Allied One) is cleared to the Memphis International airport as filed…on departure fly runway heading, climb and maintain 5000 expect FL 320 (pronounced Flight Level Three Two Zero) 10 minutes after departure, departure frequency 128.15 squawk 4232.

2.2.2.3. In the event that the airspace that the pilot is going to be flying in is uncontrolled use this phraseology: VAA_001 (Pronounced Allied One) is cleared to the Memphis International airport as filed… on departure fly runway heading, Climb and maintain 5000 after reaching 5000 resume own navigation, departure frequency 118.5 Unicom, squawk 4232.

2.2.3. A standard VFR Departure clearance: (note: when issuing a VFR clearance use the 4600 block (i.e. 4601, 4602, 4603, etc.) to assign the squawk code.

2.2.3.1. (Callsign) is cleared through the (Airport Name) class Bravo/Charlie/Delta airspace to the (Direction of flight) at or below (altitude) departure frequency XXX.XX squawk XXXX.

2.2.3.2. VAA_001 (Pronounced Allied One) is cleared through the Memphis International airport class Bravo airspace to the Northwest at or below 3,500 ft, departure frequency 128.15 squawk 4601.

2.3.1. Transfer of Communication/Control. After ensuring that the pilot reads back the clearance that you issued correctly you may then switch him to the next controlling position.

2.3.1.1. If the clearance is read back correctly then utilize this phraseology:

2.3.1.1.1. (Callsign) read back is correct contact Ground on XXX.XX (include TS channel or this channel) when ready for taxi.

2.3.1.1.2. VAA_001 (Pronounced Allied One) read back is correct contact Ground on TS channel 121.6 when ready for taxi.

2.3.1.1.3. . In the event that the airspace that the pilot is going to be flying in is uncontrolled use this phraseology: VAA_001 (Pronounced Allied One) read back is correct advisory frequency change is approved on TS channel 118.5 Unicom when ready for taxi.

2.3.1.2. If the clearance is read back incorrectly then utilize this phraseology:

2.3.1.2.1. (Callsign) negative, (appropriate instruction), contact Ground on XXX.XX (include TS channel or this channel) when ready for taxi.

2.3.1.2.2. VAA_001 (Pronounced Allied One) negative, squawk 4601, contact Ground on 121.6 this channel when ready for taxi.

Chapter 3

GROUND CONTROL

3.1. Control of Ground Movement. The ground control position is normally fairly simple and one basic rule applies over all. If you get in trouble you can all ways have the aircraft hold it's position. The following chapter will give you guidelines on how to manage the flow of ground traffic effectively.

3.2. Issuing Taxi instructions. When an aircraft calls you ready to taxi then coordinate with the Tower Controller to determine what runway is in use.

3.2.1. After determining what runway the aircraft will be taxing to you issue the following taxi instructions:

3.2.1.1. (Callsign) wind (direction/knots), Altimeter XX.XX, taxi to Runway XXX, contact tower XXX.XX (include TS channel or this channel) when ready for departure.

3.2.1.2. VAA_001 (Pronounced Allied One) wind 260 at 4, Altimeter 29.92, taxi to Runway 22L, contact tower 118.2 this channel when ready for departure.

3.2.2. When an aircraft exits the runway and contacts you for parking you have a few options.

3.2.2.1. If the aircraft calls you requesting GA parking then issue the following instructions:

3.2.2.1.1. (Callsign) (Airport Name) ground…taxi to General Aviation parking, monitor this frequency.

3.2.2.1.2. VAA_001 (Pronounced Allied One), Memphis ground…taxi to General Aviation parking, monitor this frequency.

3.2.2.1.3. If you need to you may tell the aircraft to taxi to a certain location via specific taxiways

3.3. Hold Short Instructions. When issuing hold short instructions you shall ensure that the pilot reads back the hold short instruction.

3.3.1. (Callsign) (Airport Name) ground…taxi to runway XXX via taxiway XX, hold short of runway XXX.

3.3.2. VAA_001 (Pronounced Allied One), Memphis ground…taxi to runway 22L via taxiway Alpha, hold short of runway 22R.

Chapter 4

LOCAL CONTROL / TOWER

4.1. Runway Selection. The Local Controller/Tower is responsible for the runway selection. According to the winds you should select the appropriate runways for departures and arrivals. You do this by selecting the runway that corresponds best with the winds at that particular airport. If winds are calm, select a pair or single runway used the most (ILS Equipped preferably) as your "calm wind" runway(s).

4.1.1. For example if the winds are 250 at 15kts (Runways available 26L and R runways 8R and L) You would want to choose Runways 26L and R for your departure and arrival runways because they are in the direction of the wind.

4.2. Missed Approach procedures. When working Local Control/Tower and have an aircraft who requests a missed approach, you shall clear them as published on the approach plate and hand them off to the Approach/Departure Controller.

4.3. Transfer of Control. When a departing aircraft is approximately 2 nautical miles off the departure end or at about 1000 ft AGL (above ground level), switch the aircraft to the Departure controller.

4.3.1. (Callsign) Contact (Departure Name) Departure on XXX.XX (include TS channel or this channel).

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

4.4. Takeoff Instructions. When issuing a takeoff clearance utilize the following phraseology:

4.4.1. Takeoff clearance:

4.4.1.1. (Callsign) (Airport Name) Tower, winds XXX at XX runway XXX cleared for take off.

4.4.1.2. VAA_001 (Pronounced Allied One), Memphis Tower, winds 220 at 12 runway 22L cleared for take off.

4.4.2. Heading after departure (if assigned by the departure controller):

4.4.2.1. (Callsign) (Airport Name) Tower, winds XXX at XX on departure fly heading XXX, maintain (altitude), runway XXX cleared for takeoff.

4.4.2.1. VAA_001 (Pronounced Allied One), Memphis Tower, winds 220 at 12, on departure fly heading 090, maintain 4000, runway 22L cleared for takeoff.

4.4.3. Aircraft on short Final:

4.4.3.1. (Callsign) (Airport Name) tower hold short, traffic on a XX mile final runway XXX.

4.4.3.2. VAA_001 (Pronounced Allied One), Memphis Tower, hold short, traffic on a 2 mile final runway 22L.

4.5. Arrival Instructions. When issuing a landing clearance utilize the following phraseology:

4.5.1. Landing instructions

4.5.1.1. (Callsign) (Airport Name) Tower, winds XXX at XX runway XXX cleared to land.

4.5.1.2. VAA_001 (Pronounced Allied One), Memphis Tower, winds 250 at 5 runway 22L cleared to land.

4.5.2. Sequencing of aircraft:

4.5.2.1. (Callsign) (Airport Name) Tower, winds XXX at XX runway XXX cleared to land number XX behind a (Type of aircraft) on a XX mile final.

4.5.2.1. VAA_001 (Pronounced Allied One), Memphis Tower, winds 220 at 8 runway 22L cleared to land number 2 behind a Cessna 172) on a 3 mile final.

4.5.3. Landing behind a departure:

4.5.3.1. (Callsign) (Airport Name) Tower, winds XXX at XX runway XXX cleared to land traffic is a (type of aircraft) departure roll runway XXX.

4.5.3.2. VAA_001 (Pronounced Allied One), Memphis Tower, winds 220 at 10 runway 22L cleared to land traffic is a Boeing 747 departure roll runway 22L.

4.6. Issuing a Go Around. In the event that there is an aircraft on the runway or there is an unsafe condition on the runway issue a Go around to the aircraft cleared to land.

4.6.1. VAA_001 (Pronounced Allied One), Go Around aircraft on runway!

4.7. VFR Traffic Patterns (See Appendix 7). Tower will notify Approach of all changes in pattern status. VFR traffic will remain within a 5 NM radius of the airport unless otherwise approved by Tower.

4.7.1. All VFR patterns require, at a minimum, a reported ceiling of 1,000 feet AGL and 3 miles visibility.

4.7.2. Rectangular Pattern:

4.7.2.1. Fixed Wing Pattern Altitude. 1,300 feet AGL.

4.7.2.2. Rotor Wing Pattern Altitude. 600 feet AGL.

4.7.2.3. Overhead Traffic Pattern. Pattern altitude is 1,800 feet AGL.

4.7.3. Protection of Overhead Pattern. When aircraft are using the overhead pattern, Tower will issue the following departure instruction to departing aircraft: "MAINTAIN AT OR BELOW 1,300' UNTIL DEPARTURE END OF RUNWAY."

4.8. Radar Traffic Patterns. All radar traffic patterns will be west of the airfield.

4.8.1. Fixed Wing pattern: Controlled by Approach. Pattern altitude 4,000 feet AGL.

4.8.1.1. Standard climb-out/missed approach: "FLY RUNWAY HEADING. CLIMB AND MAINTAIN 5,000. CONTACT APPROACH Team Speak Channel 127.1."

4.8.2. Rotor Wing Pattern: Controlled by Approach. Pattern altitude 2,000 feet AGL.

4.8.2.1. Standard climb-out/missed approach: "FLY RUNWAY HEADING. CLIMB AND MAINTAIN 2,000. CONTACT APPROACH Team Speak Channel 122.375"

4.9. Standard Breakout Procedures: Tower shall call Approach and advise them to issue breakout instructions, if necessary. Standard breakout will be issued unless otherwise coordinated.

4.10. Helicopter Takeoff Clearance procedures:

4.10.1. Issue takeoff clearance from movement areas other than active runways with additional instructions, as necessary.

4.10.1.1. VAA_001 (Pronounced Allied One), (ADDITIONAL INSTRUCTIONS), cleared for take off.

4.10.2. Use the following phraseology if takeoff is requested from nonmovement areas and the operation appears reasonable.

4.10.2.1. VAA_001 (Pronounced Allied One), Proceed as requested, use caution (reason and additional instructions, as appropriate).

4.10.3. Use the following phraseology if takeoff is requested from an area not visible, an unlit nonmovement area at night, or an area off the airport, and traffic is not a factor:

4.10.3.1. VAA_001 (Pronounced Allied One), Departure from (requested location) will be at your own risk (reason, additional instructions, as traffic, as appropriate).

4.11. Helicopter Landing Clearance procedures:

4.11.1. Issue landing clearance to movement areas other than active runways with additional instructions, as necessary:

4.11.1.1. (Callsign) (Airport Name) Tower, winds XXX at XX, (additional instructions) cleared to land.

4.11.1.2. VAA_001 (Pronounced Allied One), Memphis Tower, winds 250 at 5, make straight in approach cleared to land helipad 1.

4.11.2. Use the following phraseology if landing is requested to nonmovement areas and the operation appears reasonable:

4.11.2.1. (Callsign) (Airport Name) Tower, winds XXX at XX, proceed as requested, use caution (reason and additional instructions as appropriate).

4.11.2.2. VAA_001 (Pronounced Allied One), Memphis Tower, winds 250 at 5, proceed as requested, use caution men and equipment in the vicinity, report landing assured.

4.11.3. Use the following phraseology if landing is requested to an area not visible, an unlighted nonmovement area at night, or an area off the airport, and traffic is not a factor:

4.11.3.1. (Callsign) (Airport Name) Tower, winds XXX at XX, landing at (requested location) will be at your own risk (reason, additional instructions, and traffic, as appropriate).

4.11.3.2. VAA_001 (Pronounced Allied One), Memphis Tower, winds 250 at 5, landing at hospital pad will be at your own risk, helipad is not in sight from the tower, report landing assured.

4.12. Runway Exit procedures. When aircraft has landed instruct the pilot to exit the runway at a certain point and then contact the ground controller once clear.

Chapter 5

DEPARTURE CONTROL

5.1. IFR Departure Separation. 3 nautical miles separation horizontally and 1000 feet separation vertically must be maintained at all times between all IFR aircraft whether departing or arriving.

5.1.1. In order to ensure that this procedure is adhered to the controller may use the following methods to ensure that separation is maintained. A speed reduction, Altitude assignment change, or a different heading assignment may be used to properly separate the aircraft once in the air.

5.1.2. The local controller and the departure controller shall utilize IFR releases to ensure aircraft departing from the same aircraft have proper separation. The Local/Tower controller shall use MSN messenger or TeamSpeak Whisper to request a release from the Departure Controller.

5.1.2.1. Tower/Local Controller: “Request release N54678 off runway 22L at Memphis.

5.1.2.2. Departure Controller: “Released” or “Released, Runway Heading (RH), maintain 4000ft. (That may look like this on MSN: “Released, RH M040”).

5.2. IFR Departure Phraseology. The following phraseology shall be used when communicating with aircraft under the departure controller’s jurisdiction.

5.2.1. On initial contact with the IFR departure the controller shall utilize this phraseology (note: the only time a aircraft will be radar identified or be told Radar Contact is on the initial contact of the departure controller or if at anytime radar service is terminated and then reestablished):

5.2.1.1. (Callsign), (Airport or Tracon name) Departure, Radar Contact, (direction and mileage from fix or airport), fly heading XXX, climb and maintain (Altitude).

5.2.1.2. N23456, Memphis Departure, Radar Contact, 2 miles northwest of the Holly VOR, fly heading 090, climb and maintain 12,000.

5.2.2. After initial contact has been established vector the aircraft to a specified point on the Departure procedure or to a point on their flight plan and once the aircraft has reached either 15000 ft or outside of 60 miles from that airport switch them to the Center Controller.

5.2.2.1. The airspace shelf for all approach/arrival airspaces operating in Centers boundaries is 15000 feet AGL. Ensure that the aircraft is switched to the Center controller prior to reaching that altitude. A good rule of thumb is to have the aircraft switched at about 3-4 thousand feet below that so that it may contact the center controller prior to entering their center controller’s airspace.

5.2.3. The initial heading given should be direct the first NAVAID: if a vectored departure. If it is a Transition departure then the initial headings should be given to join the departure.

5.2.3.1. (Callsign), fly heading XXX resume the (DP name) Departure.

5.2.3.2. N12345, fly heading 120 resume the Memphis6 Departure.

5.3. Transfer of Control. When a departing aircraft is approximately three to four thousand feet below the center controllers airspace or within about five to ten miles from reaching the 40 mile airspace border the departure controller should switch the aircraft to the center controller's frequency.

5.3.1. (Callsign) Contact (Center Name) Center on XXX.XX (include TS channel or this channel).

5.3.2. VAA_001 (Pronounced Allied One), Contact Memphis Center on TS channel 122.55, Good flight.

5.3.3. If the adjacent airspace is uncontrolled then you would tell the aircraft:

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

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

Chapter 6

CENTER/ENROUTE

6.1. Center Separation procedures. 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.

6.1.1. Methods utilized to ensure Enroute separation. Controllers can utilize speed adjustments or altitude assignments to ensure separation from other aircraft is maintained.

6.2. Enroute procedures. 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.

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

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

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

6.3. Aircraft Decent procedures. As a center controller one of your many duties is to ensure that the proper decent of an aircraft is achieved. One way to make sure that this is accomplished smoothly is to inquire if the pilot has the appropriate charts on board for the Standard Terminal Arrival procedure (STAR) in to the destination airport. If the pilot in question does not have the charts on board then you can descend and vector them for the standard arrival. Make sure that all crossing restrictions on a STAR are adhered to and that you do not hand off the aircraft to the approach controller to high or too low. The Center Controller and the Approach controllers shall pre coordinate specific spots for the transfer of control of an aircraft to occur.

6.3.1. When working an aircraft on a STAR utilize the following phraseology:

6.3.1.1. (Callsign) (Center Name) Center, proceed on course direct (NAVAID) Join the (STAR NAME) cross (Intersection) at and maintain (Altitude) Speed (KTS) (Airport name) Altimeter XXXX.

6.3.1.2. N12345, Memphis Center, proceed on course direct Holly VOR join the Holly1 arrival cross the Holcomb intersection at and maintain 5000 feet, Memphis Altimeter 29.92.

6.4. Transfer of Control. 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.

Chapter 7

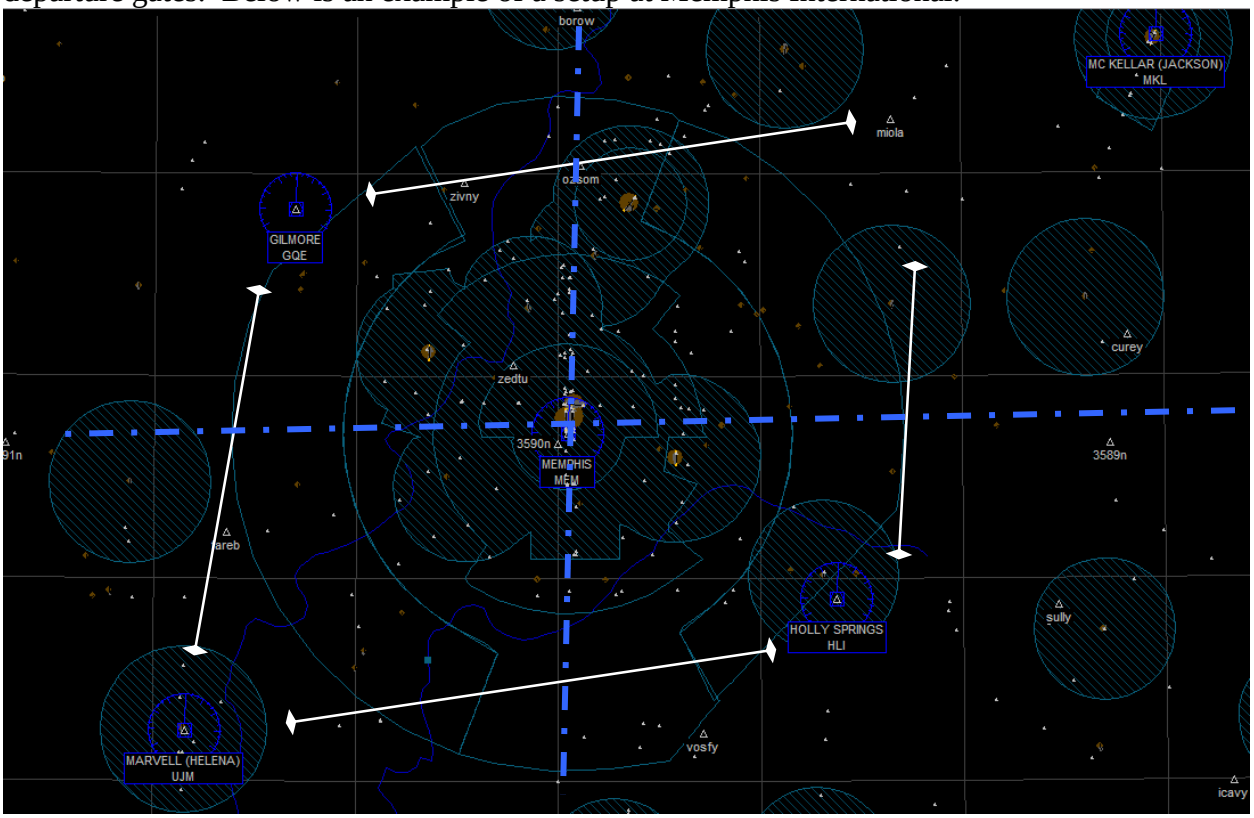
APPROACH/ARRIVAL CONTROL

7.1. Approach/Arrival Control procedures. As an Approach/Arrival controller separation and the efficient flow of traffic is your prime responsibility. As an Approach/Arrival Controller you have the responsibility to setup and issue certain instructions to ensure the safe and expeditious flow of traffic within your airspace. This chapter will aid you in preparation for one of the most complex positions in Air Traffic Control.

7.2. Initial Contact. As an Approach/Arrival controller there are a few things that must be relayed to an aircraft on initial contact. These items are essential for a successful arrival.

7.2.1. If an aircraft is on a published Arrival procedure or STAR then your job is a lot easier. You can coordinate with the Center controller for a specific point of handoff.

7.2.2. If an aircraft is not on a published arrival then it is in your best interest to have the Center Controller vector the aircraft to a certain point of handoff. You should setup and altitude and point of transfer at the beginning of a session to ensure the smooth flow of traffic. These points should be clear of the departure corridor or at an altitude that would ensure the 1000 foot separation that is required. In a busy sector you can setup what is called approach gates and departure gates. Below is an example of a setup at Memphis International.



7.2.3. Here is some standard phraseology to use on initial contact and through out the approach procedures:

7.2.3.1. On initial contact with the aircraft you must divulge a certain amount of information to advise the pilot of what to expect in your airspace. On initial contact you must ensure that three very important pieces of information are disclosed. The type of approach to expect at the arriving airport, the landing runway that is to be used, and the Altimeter at the field are very important piece of information. The type of approach needs to be disclosed on initial contact so that the pilot can ensure that he has the appropriate approach plate and is able to fly that approach. If the pilot notifies you that he is unable to fly that particular approach then query him on the type of approach that e would like. As long as it does not affect other aircraft and you pre-coordinate it with the tower controller then you should approve it. The importance of the runway in use is just as important as the approach procedure that you give him. The pilot needs to know what runway he will be making this approach to. And finally the Altimeter; the altimeter is very important as to ensure that the altitudes you assign to the pilot are accurate on your radar screen. If the altimeter is off by just a couple points it could mean the difference in an aircraft hitting another aircraft or making it safely on the ground. Here is the phraseology you should use on initial contact with the aircraft.

7.2.3.1.1. (Callsign) (Approach name) approach, expect (type of approach) runway XXX approach (Airport name) altimeter XXXX.

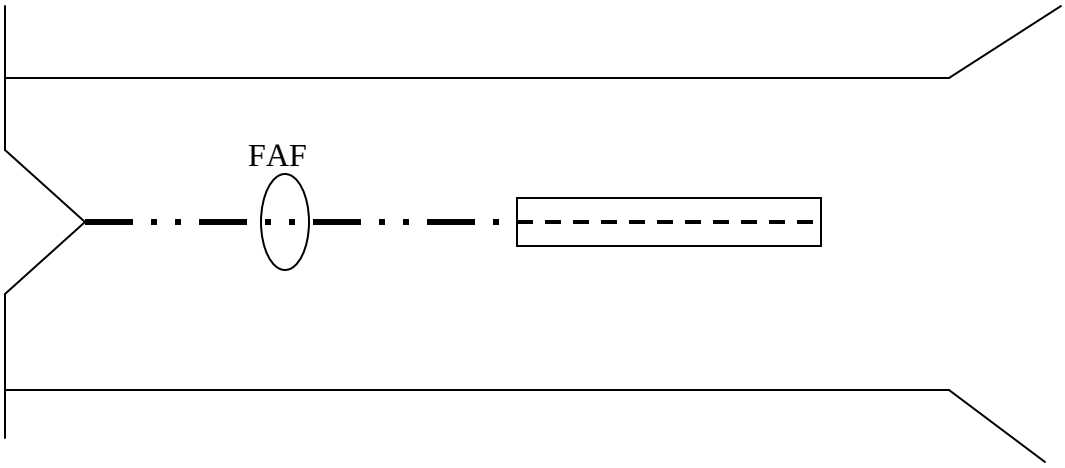
7.2.3.1.2. N56489, Memphis approach, expect ILS runway 22L approach, Memphis altimeter 29.92

7.2.3.1.3. (Callsign) (Approach name) approach, fly heading XXX, descend and maintain (altitude), vectors for (type of approach) runway XXX approach, (Airport name) altimeter XXXX.

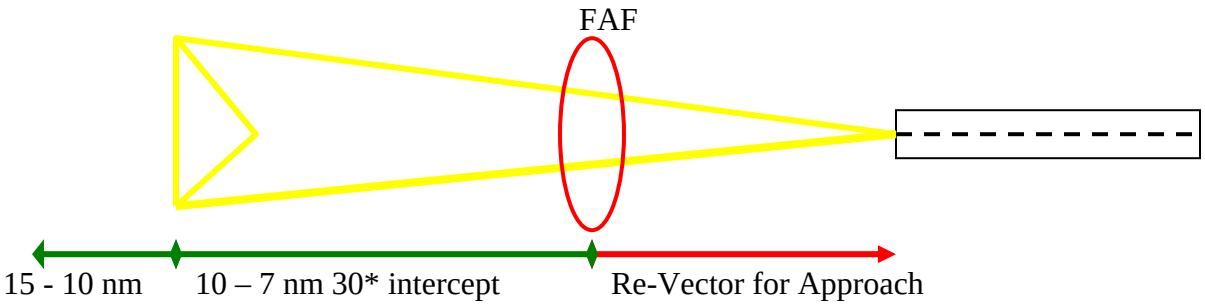
7.2.3.1.4 N56489, Memphis approach, fly heading 250, descend and maintain 6000, vectors for ILS runway 22L approach, Memphis altimeter 29.92.

7.3. Arrival/Final Approach. This is the most critical point in your airspace. How you vector the aircraft here determines the success of the plan that was laid out before the aircraft taxied out for departure.

7.3.1. The arrival pattern is very similar to a rectangular patter that the Tower or radar controller would use for practice approaches. This pattern differs at some airports due to obstructions or other procedures that change the form of arrival. Below is a diagram of a standard arrival pattern.



7.3.2. The final approach is the last chance so to speak to ensure that the aircraft makes it on the ground safely and smoothly. Controllers at WestCoastATC shall give turns to final between 20 and 30 degrees. If you have to turn an aircraft any sharper than that then you shall vector the aircraft back around for another approach. Below is a diagram depicting the final approach.



7.3.3. There is a certain procedure when turning an aircraft to final that must be followed every time. It is called Position, Turn, Altitude, and Clearance (PTAC).

7.3.3.1. (Callsign) you are XX miles from (FAF or OM) fly heading XXX maintain (Altitude) until established on the localizer cleared ILS runway XXX approach.

7.3.3.2. N52648 you are 8 miles from DUMMS intersection fly heading 210 maintain 3000 until established on the localizer cleared ILS runway 18C approach.

7.3.3.3. (Callsign) you are XX miles from (FAF or OM) fly heading XXX descend and maintain (alt or just maintain (alt) if already at the alt) until established cleared (name of approach) runway XXX approach.

7.3.3.4. N52648 you are 8 miles from ODERE intersection fly heading 210, descend and maintain 2000 until established, cleared VOR runway 18R approach.

7.4. Separation on Final. When sequencing an aircraft to final you need to ensure that you have the following separation at a minimum:

7.4.1. Small behind Large – 4 miles

7.4.2. Small behind B757 – 5 miles

7.4.3. Small behind a Heavy – 6 miles

7.4.4. Large/Heavy behind B757 – 4 miles

7.4.5. Large behind a Heavy – 5 miles

7.4.5. Heavy behind a Heavy – 4 miles

7.5. Visual Approach. A visual approach is an ATC authorization for an aircraft on an IFR flight plan to proceed visually to the airport of intended landing; it is not an instrument approach procedure.

7.5.1. Vector an aircraft for a Visual approach only if the weather is VFR. In your opinion the weather must be sufficient for the aircraft to report the airport in site from a reasonable amount of distance from the airport.

7.5.1.1. (Callsign) Fly heading XXX vector for Visual Approach to Runway/Airport XXX.

7.5.1.2. N14568, Fly heading 220, vector for Visual Approach to Runway 22L.

7.5.2. When the aircraft is within about 15 miles of the airport notify the pilot of the distance from the field and ask for the pilot to report the airport in sight.

7.5.2.1. (Callsign) (Airport name) airport is in your (o'clock or direction), XX miles, report airport in sight.

7.5.2.2. N14568 Memphis airport is in your 12 o'clock, 12 miles, report airport in sight.

7.5.3. When the pilot reports the airport in sight you may clear the aircraft for the visual approach.

7.5.3.1. (Callsign) (instructions if appropriate) cleared Visual Approach Runway XXX.

7.5.3.2. N14568, follow B747 3 mile final, cleared Visual Approach Runway 22L.

7.6. Transfer of Control. After the aircraft is established on final or has the field in site depending on the approach you shall switch him to the Tower Controller. When an aircraft is on final the transfer of communications must take place prior to the aircraft reaching the Final Approach fix. If the aircraft is on a visual approach, unless otherwise coordinated, the aircraft must be switched before enter 5nm of the airport.

7.6.1. (Callsign) XX miles from (airport name) airport, Contact (Tower name) Tower on XXX.XX (include TS channel or this channel).

7.6.2. N14568, 7 miles from Memphis International, Contact Memphis Tower on TS channel 118.2.

Chapter 8

TRAINING

8.1. Training of New Controllers. The following are the procedures for training at WestCoastATC.

8.1.1. All Developmental Controllers will complete their initial training at WestCoastATC through the WestCoastATC Aeronautical University.

8.1.2. Each Developmental Controller will be assigned a set of initials and placed on the Developmental Roster at the Aeronautical University.

8.1.3. No Developmental Controllers will proceed past the following levels until cleared by there instructor and complete the exam for each position with a 70% pass rating.

8.1.3.1. Developmental 1 (GK/CD/ GC/TWR)

8.1.3.2. Developmental 2 (APP/DEP)

8.1.3.3. Developmental 3 (CTR)

8.1.4. All Developmental Controllers will attach "_Z" to the end of there callsign on TeamSpeak at all times until they achieve the Controller rating.

8.1.5. Developmental Controllers may participate with the approval of the Hosting controller in sessions outside of the University sessions. They may only participate to the level in which they have been signed off on and is stipulated on the Developmental roster located on the WestCoastATC Aeronautical University website

8.1.6. No Developmental may log on with FSNAV unless they are actively controlling or being instructed by an instructor.

8.1.7. No Developmental may log on with Flight Sim while actively controlling or being instructed by an instructor.

Chapter 9

SESSION POSTING

9.1. Posting a Session. When posting a session the controller posting must meet the requirements listed below:

9.1.1. The controller must have met the requirements for that level. For example if you are a trainee and you are going to participate in a Regional Approach session then you must be signed off by your instructor to work APP/DEP solo.

9.1.2. Unless you are assigned to that center or have permission from the ARTCC that you wish to host in you must host inside the ARTCC that you are assigned to.

9.1.3. Controllers will only provide ATC service in one ARTCC airspace at a time.

9.1.4. Student Controller's that do not have access to the calendar function must request either their instructor or a ARTCC Chief add their event to the calendar if they wish to host a session on their own.

9.2. Monthly Session Requirements. All controllers will be required to host or participate in one session a month. That session must be at least 2 hours long.

9.2.1. Controllers not meeting this requirement will be notified by their ARTCC Chief of the lack of proficiency requirements being met. The ARTCC Chief will then notify the Director of ATC Operations of the corrective action taken.

9.3. Email Notifications. When emailing your session announcement please do so no later than 6 hours prior. If you decide to host after that time then no email shall be sent for that session.

9.3.1. The content of the email notification will include the following information and will contain the wording at a minimum that is contained in Appendix 4 of this regulation. Any other specific information must be clear and professional.

9.3.1.1. The Member name or callsign or a generic greeting. i.e. Dear Aviator, Fellow Member.

9.3.1.2. The session time, date, duration, hosting center, and other information.

9.3.1.3. Your Name and representing ARTCC

9.3.2. Controllers hosting inside of the 6 hour window must send an email to the ATC Director notifying him of the session details and its controller participants. For those who do it outside of the 6 hour window this notification is not necessary since an email will be sent to everyone.

9.4. Calendar Posting. When posting a session on the calendar, controllers will include at a minimum the wording in Appendix 4 of this regulation. Any other specific information must be clear and professional.

9.4.1. If a controller decides to host a session and it is inside of 6 hours until the session controllers are still to post it on the calendar.

Chapter 10

ATC OPERATIONS

10.1. ATC Operations. WestCoastATC's Airspace system will be operated by all members certified through the WestCoastATC Aeronautical University ATC program and will be organized and operate in the follow manner:

10.1.1. All Controllers shall operate under the WestCoastATC Standard Operating Procedures at all times.

10.2. ATC Division Staff Positions. The ATC Division will have the following staff positions:

10.2.1. Director of ATC Operations. The Director of ATC Operations will be responsible for all operations conducted in the WestCoastATC Airspace System. The Director of ATC Operations is the primary point of contact for the WestCoastATC Executive Director and any other members of the WestCoastATC Staff.

10.2.1.1. The Director of ATC Operation's must hold the following qualifications:

10.2.1.1.1. Hold a rank of Supervisor and meet the requirements set within that rank.

10.2.1.1.2. Have held a staff position within the ATC Division of WestCoastATC.

10.2.1.2. The Director of ATC Operation's primary responsibilities are:

10.2.1.2.1. Reports to the WestCoastATC Executive Director and oversees operations and management for all of the WestCoastATC Airspace System.

10.2.1.2.2. Appoints all Deputy Directors within the ATC Division submits selection to the WestCoastATC Executive Director for final approval.

10.2.1.2.3. Submits, maintains, and enforces the WestCoastATC SOP that pertains to the ATC Division and that is approved by the WestCoastATC Executive Director.

10.2.1.2.4. Approves all position appointments within the division other than Deputy Directors.

10.2.1.2.5. Performs other tasked as assigned by the WestCoastATC Executive Director.

10.2.1.3. The Director of ATC Operations will be given the Server Admin (SA) Privileges on the ATC Server.

10.2.1.4. The Director of ATC Operations will be a full voting member of the WestCoastATC Council.

10.2.2. Deputy Director - ATC Training. The Deputy Director of ATC Training will be responsible for all Training operations within the ATC Division at WestCoastATC. The Deputy Director of ATC Training is the primary point of contact for the Director of ATC Operations and any other members of the WestCoastATC Staff in regards to ATC training.

10.2.2.1. The Deputy Director of ATC Training must hold the following qualifications:

10.2.2.1.1. Hold a rank of Supervisor and meet the requirements set within that rank.

10.2.2.1.2. Be an instructor qualified controller.

10.2.2.2. The Deputy Director of ATC Training's primary responsibilities are:

10.2.2.2.1. Reports to the Director of ATC Operations and oversees operations and management for all of the training within the ATC Division.

10.2.2.2.2. Submits, maintains, and enforces the Training Operations Guide and other training material that is approved by the Director of ATC Operations.

10.2.2.2.3. Submits Monthly Training reports to the Director of ATC Operations that outline all training operations within that month.

10.2.2.2.4. Approves recommendations for instructor appointments from supervisors and maintains a team of qualified instructors within the WestCoastATC Aeronautical Univeristy.

10.2.2.2.5. Performs other tasked as assigned by the Director of ATC Operations.

10.2.2.3. The Deputy Director of ATC Training will be given the Registered (R) Privileges on the ATC Server.

10.2.3. Deputy Director - Supervisors. The Deputy Director of Supervisors will be responsible for all supervisors within the ATC Division at WestCoastATC. The Deputy Director of Supervisors is the primary point of contact for the Director of ATC Operations and any other members of the WestCoastATC Staff in regards to Supervisors.

10.2.3.1. The Deputy Director of Supervisors must hold the following qualifications:

10.2.3.1.1. Hold a rank of Supervisor and meet the requirements set within that rank.

10.2.3.2. The Deputy Director of Supervisors' primary responsibilities are:

10.2.3.2.1. Reports to the Director of ATC Operations and oversees operations and management for all of the supervisors within the ATC Division.

10.2.3.2.2. Submits supervisor appointments to the Director of ATC Operations for final approval.

10.2.3.2.3. Ensures that a sufficient ratio of Supervisors to Controllers is maintained.

10.2.3.2.4. Performs other tasked as assigned by the Director of ATC Operations.

10.2.3.3. The Deputy Director of Supervisors will be given the Registered (R) Privileges on the ATC Server.

10.3. ATC Division Non-Staff Positions. These are the positions within the ATC division that are non-staff occupied:

10.3.1. Supervisor. The Supervisor will be responsible for all operations conducted on his/her team. The Deputy Director of Supervisors is the primary point of contact for the Supervisor.

10.3.1.1. A Supervisor must hold the following qualifications:

10.3.1.1.1. Hold a rank of Senior Controller and meet the requirements set within that rank.

10.3.1.1.2. Been certified as a Controller and hosted at least 100 hours of session time.

10.3.1.2. The Supervisor's primary responsibilities are:

10.3.1.2.1. Reports to the Deputy Director of Supervisors and oversees operations and management for an assigned team of controllers.

10.3.1.2.2. Ensures new controllers are welcomed and transitioned into the assigned team.

10.3.1.2.3. Nominates controllers to become Instructor qualified at the WCATC Aeronautical University.

10.3.1.2.4. Recommends disciplinary actions to the Deputy Director of Supervisors.

10.3.1.3. A Supervisor will be given the Registered (R) Privileges on the ATC Server.

10.3.3. Senior Controller. The Senior Controller rank is for those that have obtained a veteran type status as a controller. The Supervisor is the primary point of contact for the Senior Controller.

10.3.3.1. A Senior Controller must hold the following qualifications:

10.3.3.1.1. Hold a rank of Controller and meet the requirements set within that rank.

10.3.3.1.2. Been certified as a Controller and hosted at least 50 hours of session time.

10.3.3.2. A Senior Controller will be given the Registered (R) Privileges on the ATC Server.

10.3.4. Controller. The Controller rank is for those that have obtained a certification from the WestCoastATC Aeronautical University. The Supervisor is the primary point of contact for the Controller.

10.3.4.1. A Controller must hold the following qualifications:

10.3.4.1.1. Completed all phases of initial ATC training at the WestCoastATC Aeronautical University.

10.3.4.2. A Controller will be given the Registered (R) Privileges on the ATC Server.

10.3.5. Developmental Controller 3 (D3). The D3 rank is for those that have obtained a D1 and D2 certification from the WestCoastATC Aeronautical University.

10.3.5.1. A D3 Controller will be given the Registered (R) Privileges on the ATC Server.

10.3.6. Developmental Controller 2 (D2). The D2 rank is for those that have obtained a D1 certification from the WestCoastATC Aeronautical University.

10.3.6.1. A D2 Controller will be given the Registered (R) Privileges on the ATC Server.

10.3.7. Developmental Controller 1 (D1). The D1 rank is for those that have enrolled and been accepted in to the WestCoastATC Aeronautical University ATC Initial Training Program (ITP).

Appendix 1

CLEARANCE DELIVERY TS CHANNEL SETUP

The following information shall be included in the CD Team speak Channel:

****
XXXXX ARTCC (XXX)
*****Clearance Delivery*****

XXXXX ARTCC will be opened for flights in and out of XXXXX ARTCC. ATC Services will only be provided once you are in XXX's airspace…outside of that you can receive clearances but you will be uncontrolled until approaching the airspace boundary.

Please make sure that you file your flight plan in the following manner:

+fp N12345 C172 IFR 070 KATL.RMG.KAHN RMK

+fp – Callsign - A/C Type - IFR/VFR - Alt. - Route - Remarks

Any flight plan not filed in this manner will be asked to re-file.

Session Start Time: XXXX (CST, PST, EST)
Session Duration: X Hours
Session Password:

The server will be open 30 minutes prior to the session starting for clearance pre-filing

****

Appendix 2

ALTITUDE/DIRECTION OF FLIGHT REF SHEET

Utilize the following information to ensure that the pilots have filed the correct altitude for their direction of flight. A good way to remember this is using the phrase "NEODD SWEVEN".

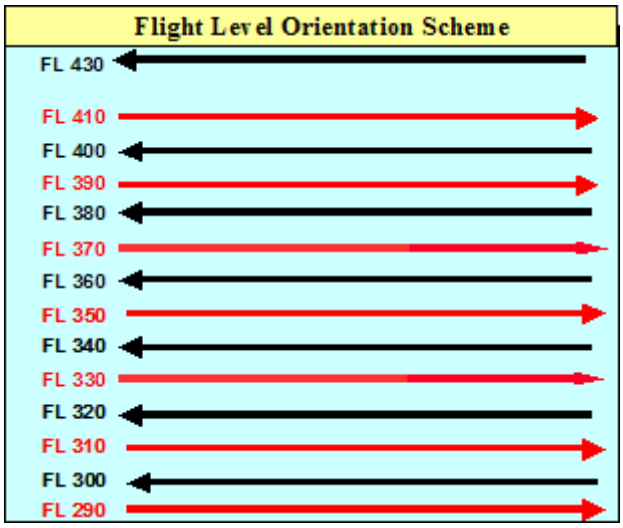
NEODD - Aircraft flying North or East (**0° to 179°**) will be issued **odd** altitudes up to and including FL410. Above FL410 aircraft will still be given odd altitudes yet at intervals of 4000 ft (i.e. FL450, FL490, FL530).

SWEVEN - Aircraft flying South or West (**180° to 359°**) will be issued **even** altitudes up to and including FL400. Above FL400 aircraft will be given odd altitudes yet at intervals of 4000 ft beginning at FL430 (i.e. FL470, FL510, FL550)

VFR aircraft are supposed to follow the NEODD-SWEVEN rule plus 500 feet (eg, eastbound at 7500, westbound at 8500) but since the aircraft is VFR altitudes are at the pilot's discretion.

RVSM

RVSM reduces the vertical separation between aircraft to 1000 feet in opposite directions from FL290 to FL410 (inclusive).



The definition of "westbound" and "eastbound" flight remains unchanged. The only change is in the altitude structure.

Here at WestCoastATC an equipment suffix of "/Q" for aircraft wishing to follow real-life standards and to simulate certification of their aircraft for flight in RVSM airspace.. Example: N12345 SR22/Q IFR 320 KMEM.ARG.RZC.KXNA

Appendix 3

ATC DOCUMENT/ FLIGHT PROGRESS STRIP

West Coast ATC Flight Progress Strips

Created by: John Bratcher (ZME ARTCC)

Callsign	Dept	Arrival / Dept. restrictions	Clr	TX	TO
Type A/C	Squawk	Rwy assignments	DC		
Freq. Assigned	RAL	Assigned Altitudes Enroute		Winds	

N12345	KATL	KAHN / RH M040	X	X	X
C172	5453	9L	X		
115.50	150	~~040~~ ~~100~~ 150		090	05

"West Coast ATC Document"

A/C ID	A/C Type	Dept	Arr	RAL	XPDR		Route/Misc. Info
N12345	C172	KATL	KAHN	150	5353		RH M040 Rwy9 Dept. Blah

Appendix 4

CALENDAR AND EMAIL INFORMATION

Utilize the following wording at a minimum when sending a session notification email or when post a session on the calendar.

****

Please Use the following frequencies for your flight:

Unicom: 118.5 (This will be for when you are not under the control of ATC.)
Clearance Delivery: XXX.XX

All other frequencies will be dependent on the amount of pilots/controllers and pilots will be advised of which frequency to change to.

XXXXX ARTCC will be opened for flights in and out of XXXXXX ARTCC. ATC Services will only be provided once you are in XXX's airspace…outside of that you can receive clearances but you will be uncontrolled until approaching the airspace boundary.

Your flight may begin at the airport of your choice, however please consider session length when planning your flight.

Flight Plans (PLEASE READ): All flight plans for this session must be filed in this order. Any flight plans filed outside of this order will be asked to refile. Thanks:

+fp N12345 C172 IFR 070 KATL.RMG.KAHN RMK

+fp – Callsign - A/C Type - IFR/VFR - Alt. - Route - Remarks

The session server will be up for prefiling 30 min prior. Please do not transmit on the CD freq until the session starts and the CD controller is in the channel to issue you a clearance.

See you in the Skies...

Your Name
Your ARTCC
The WestCoastATC Team!

Date: 11 November 2006
Time: 1430 EST / 1330CST / 1130PST
Session Duration: 3 Hours

****

Appendix 5

OFFICAL WESTCOASTATC CALLSIGNS

Utilize the following callsigns during ATC sessions. Any pilot not flying under these callsigns will have their spoken callsign in the remarks section of their flight plan.

VFO Name	ATC Identifier	Spoken Callsign
The Aviator Society	VAA_XXX	Allied XXX
BlueGrass Airlines	BGA_XXX	BlueGrass XXX
Caribe Charter VA	CBA_XXX	Caribe XXX
Livewire Airlines	LA_XXX	Live Wire XXX
Shavron Air	SHV*XXX	Shavron Air XXX
West*Star Virtual Airlines	WTR*XXX	West Star XXX
Virtual USA airways	USA_XXX	
Virtual Military Forces	VMF_XXX	
PacWest Aero	PAC_XXX	
Sky Taxi Airways	SKY_XXX	
EverGreen International Airlines	EGIA_XXX	

Appendix 6

AVIATION PHONETIC ALPHABET

Utilize the following Alphabet for all communications with members involving aviation..

Letter	Phonetic Letter
A	Alpha
B	Bravo
C	Charlie
D	Delta
E	Echo
F	Foxtrot
G	Golf
H	Hotel
I	India
J	Juliet
K	Kilo
L	Lima
M	Mike
N	November
O	Oscar
P	Papa
Q	Quebec
R	Romeo
S	Sierra
T	Tango
U	Uniform
V	Victor
W	Whiskey
X	X-ray
Y	Yankee
Z	Zulu

Appendix 7

STANDARD VFR PATTERN