VOICE COMMAND LIST

Controller and Pilot voice command syntax and usage

ATCPRO CONTROLLER AND PILOT VOICE COMMANDS V.4.2

Standard FAA phraseology as stated in JO 7110.65 is used in the simulation. Below are guidelines as to what is implemented in the simulation and the syntax of how the commands are spoken.

All commands, except inter-controller coordination, begin with the aircraft callsign. For example, callsign AAL1348 could be given the command "American thirteen forty eight, radar contact, climb and maintain one four thousand". Airline name codes used in the callsign are spoken as listed in the Airline Name reference list.

Numbers (<number>) are normally spoken as single digits such as "one three thousand" instead of "thirteen thousand" .
An exception is for aircraft callsigns where the numbers can be broken into double digits such as "American 1234" can be spoken "American twelve thirty four".

Headings (<number>) are given in number of degrees as three single digits, such as "355" as "three five five". Leading and trailing zeros are used such as "090" as "zero niner zero" and "007" as "zero zero seven". Heading due North is given as "360" not "000".

Relative directions (<number>) are given as hours of a clock face with 12 o'clock being straight ahead and 6 o'clock being straight behind. For example a pilot might be told where to look for another aircraft in the vicinity such as "American thirteen forty eight, traffic nine o'clock, five miles, Boeing seven thirty seven, report traffic in sight." The hour in relative directions is given as a number in commands.

VHF radio frequencies (<number>) are given as a three digit number followed by decimal fraction of one to three digits. For example, 120.3 is spoken "one two zero point three", 133.65 is spoken "one three three point six five", and 185.575 is spoken as "one eight five point five seven five".

Runways (<runway>) are given as a one or two digit number with the addition of position letter when applicable such as 34L "three four left" or 2R "two right" or 26 "two six".

Altitudes (<altitude>) are given as single digits such as 7 "seven thousand" or 17 "one seven thousand". Less than full thousands can be given as thousands and hundreds such as 1500' as "one thousand five hundred" not "fifteen hundred".

Flight Levels (FL) (<flight level>) as given the same as altitudes above. Flight levels are given as hundreds (thousands without the last two trailing zeros) such as 20,000' is flight level 200 (two

zero zero). In the US and Canada flight levels are used only above 18,000' MSL (FL180) in class Alpha airspace.

Navaids (<navaid>) are ground based equipment that sends out signals to assist pilot navigation. They can be VOR stations, NDB beacons, ILS systems, Outer Markers, Inner Markers), etc. They can always be given as individual letters such as ABQ as "alpha bravo key beck" or as local names such as "Albuquerque".

Procedure Name (<procedure name>) standard published departure or arrival procedures given a name and version number, usually from the first main waypoint on the route (for example KRKEE one arrival)

Fixes and Waypoints (<fix name>) Navigation points published on pilot charts. Pilots use onboard navigation equipment or ground based equipment to navigate to the charted points. Fixes are often given a pronounceable name such as ADYOS is pronounced "adios". See the navaid reference list for spoken names of navaids, fixes, and waypoints.

Aircraft Type (<aircraft type>) is given as the description name not aircraft code such as B737-600 spoken as "Boeing seven thirty seven" or A330 as "Airbus three thirty", or C172 as "Skyhawk"or just" Cessna". See the Aircraft Type reference list.

Direction (<direction>) is spoken as eight cardinal directions: "north, northeast, east, southeast, south, southwest, west and northwest". **See the section above on Relative Directions (12 o' clock) where cardinal directions should not be used.**

COMMAND LIST

Turns

Turn right heading <number> Usage: Turn right heading one two zero
Turn left heading <number> Usage: Turn left heading one two zero
Turn <number> degrees right Usage: Turn three zero degrees right
Turn <number> degrees left Usage: Turn three zero degrees left
Fly heading <number> Usage: fly heading two two five
Continue right turn heading <number> Usage: Continue right turn to heading three four zero
Continue left turn heading <number> Usage: Continue right turn to heading three four zero
Make right 360 (aircraft makes a complete circle turning to the right)
Make left 360 (aircraft makes a complete circle turning to the left)
Say heading (used when a controller is not sure of an aircraft's present heading)
Maintain present heading (Aircraft should continue flying on present heading)
Depart <fix name> heading <number> Usage: depart MIERA heading two one zero

Make straight in runway <number> (instructs pilot to fly straight to the assigned runway for landing – don't enter a left or right traffic pattern)
Enter right base runway <number> Usage: Enter right base runway two two (enter the base leg of a right traffic pattern for the runway)
Enter left base runway <number> Usage: Enter left base runway two two (enter the base leg of a left traffic pattern for the runway)
Enter right downwind runway <number> Usage: Enter right downwind runway two two (enter the downwind leg of a right traffic pattern for the runway)
Enter left downwind runway <number> Usage: Enter left downwind runway two two (enter the downwind leg of a left traffic pattern for the runway)
Proceed direct to <navaid> Usage: Proceed direct to TEXICO
Turn right on course (instructs a IFR aircraft to turn right then proceed to the requested route of flight)
Turn left on course (instructs a IFR aircraft to turn left then proceed to the requested route of flight)
Proceed on course (For IFR aircraft only, same as Resume Own Navigation for VFR aircraft)
Resume own navigation (VFR only, same as Proceed on course for IFR. Advises the pilot that controller no longer needs to issue vectors. Pilot can resume his filed route of flight)
Join Departure Usage: Join the Manzano two departure

Altitude Changes

Say Altitude (for controller to confirm aircraft's indicated altitude. Handy to use to test that speech recognition is functioning and pilot is responding)
Low altitude alert, check your altitude immediately
Descend and maintain <altitude> Usage: Descend and maintain niner thousand
Descend via <procedure name> Usage: Descend via the KURKEE one arrival.
Descend and maintain Flight Level
Climb and maintain <altitude> Usage: descend and maintain one four thousand
Climb and maintain flight level
Report reaching <altitude> Usage: report reaching eight thousand five hundred
Expedite climb (Indicates to pilot that he should climb without delay)
Expedite Climb to <altitude>
Expedite descent (Indicates to pilot that he should descend without delay)
Expedite descent to <altitude>
Cross <fix/waypoint> at <altitude> Usage: Cross TACOH at one one thousand (Pilot should make sure he is at the commanded altitude by the time he is over ("crosses") the fix/waypoint)
Cross <fix/waypoint> at or above <altitude>/<Flight Level> Usage: Cross TACOH at or above one one thousand (Pilot should make sure he is at or above the commanded altitude by the time he is over ("crosses") the fix/waypoint)

Cross <fix/waypoint> at or below <altitude>/<Flight Level> Usage: Cross BOSQE at or below seven thousand (Pilot should make sure he is at or below the commanded altitude by the time he is over ("crosses") the fix/waypoint)
Descend at pilots discretion, maintain <altitude> Usage: descend at pilot's discretion, maintain niner thousand (Pilot may begin his descent to niner thousand at his discretion)
Climb at Pilot's Discretion (Pilot may begin climbing at his discretion)
Verify altitude is <altitude> Usage: verify altitude is one zero thousand (Controller needs to confirm the aircraft's altitude)
Amend Altitude to <altitude> Usage: Amend altitude to six thousand (change a previously assigned altitude)
Maintain <altitude> Usage: maintain eight thousand
Maintain <altitude> until <fix name> Usage: Maintain eight thousand until SUPOT
Maintain the Block <altitude> to <altitude> Usage: Maintain the block four thousand to six thousand (Pilot must stay within a range of altitudes)
Maintain VFR (Pilot must stay clear of clouds)
Maintain VFR at or above <altitude> Usage: maintain VFR at or above six thousand (Pilot must stay clear of clouds at or above six thousand feet)
Maintain VFR at or below <altitude> Usage: maintain VFR at or below seven thousand five hundred (Pilot must stay clear of clouds at or below seven thousand five hundred feet)

Speed

Say speed (asks pilot to report current airspeed)
Resume normal speed (commands pilot to cancel previous speed restriction and return to normal operating speed) Variations: SWA123 resume normal speed, SWA123 normal speed, SWA123 you can delete the speed restriction, SWA123 delete the speed, SWA123 no restriction on your speed, SWA123 speed your discretion.
Maintain present speed (commands pilot to maintain present speed)
Maintain <number> knots Usage: Maintain two one zero knots
Maintain <number> until <fix name> Usage: Maintain one eight zero knots until SUPOT
Maintain <number> knots or greater Usage: Maintain two one zero knots or greater
Maintain <number> knots or less Usage: Maintain two five zero knots or greater
Do not exceed <number> knots Usage: do not exceed two five zero knots
Maintain maximum forward speed (commands pilot maintain maximum speed and to speed up if necessary)
Maintain slowest practical speed (commands pilot maintain minimum speed and to slow down if necessary)
Increase speed to <number> knots Usage: Increase speed to two five zero knots (Pilot will increase his indicated airspeed (not groundspeed) as seen on the flight deck instruments)

Reduce speed to <number> knots Usage: reduce speed to two one zero knots (Pilot will decrease his indicated airspeed (not groundspeed) as seen on the flight deck instruments)
Increase speed <number> knots Usage: Increase speed five zero knots (Increase present indicated speed by an additional 50 knots as seen on the flight deck instruments)
Reduce speed <number> knots Usage: reduce speed five knots (decrease present indicated speed by 5 knots as seen on the flight deck instruments)

Instrument Approach Clearances

Expect vectors for the [ILS/ RNAV] runway <number> Usage: expect vectors for the R-NAV runway two six (given to the pilot on first contact entering the sector)
Join the localizer for runway <runway> Usage: join the localizer for runway eight (On approach for runway eight, turn to intercept the localizer, and follow it to the runway)
Cancel Approach Clearance (Given when a pilot must discontinue an approach due to traffic, etc.)
ILS APPROACH
Turn right heading <number>, maintain <altitude> until established on the localizer, cleared ILS runway <runway> approach. Usage: turn right heading zero six zero, maintain eight thousand until established on the localizer , cleared ILS runway eight approach

Turn left heading <number>, maintain <altitude> until established on the localizer, cleared ILS runway <runway> approach. Usage: turn left heading zero six zero, maintain eight thousand until established on the localizer , cleared ILS runway eight approach
<number> miles from <FAF> turn right heading <heading> maintain <altitude> until established on the localizer, (Give ILS approach clearance as a separate command – 3 commands max) Usage: five miles from SUPOT, turn right heading zero five zero, maintain eight thousand until established on the localizer, cleared ILS runway eight approach
<number> miles from <FAF> turn left heading <heading> maintain <altitude> until established on the localizer, cleared ILS runway <runway> approach (Give ILS approach clearance as a separate command – 3 commands max) Usage: five miles from SUPOT, turn left heading zero five zero, maintain eight thousand until established on the localizer, cleared ILS runway eight approach
Cleared ILS runway <number> approach Usage: Cleared ILS runway eight approach NOTE: When issuing an instrument approach clearance, always specify the runway number of the approach if more than one approach of that type is available at the landing airport. If only one ILS approach is available, then you need not say runway eight approach in the above example. This rule applies to all types of approaches as listed in the commands below, including visual approaches.
RNAV APPROACH
Cleared direct <FIX>, maintain <altitude> until <FIX>, cleared R-NAV runway <number> approach Usage: Cleared direct CHIMSTR, maintain 9000 until CHIMSTR, Cleared R-NAV runway eight approach
Cleared R-NAV runway <number> approach Usage: cleared R-NAV runway eight approach

Visual Approach Clearances

<airport name> airport <number> o'clock <number> miles Usage: Double Eagle airport, three o'clock, five miles (advises the pilot the relative direction to and distance from the airport)
Cleared visual approach runway <number> Usage: cleared visual approach runway two six (can only be given when aircraft has reported airport in sight)
Follow the <aircraft type> cleared visual approach <runway> Usage: Follow the Boeing 737 cleared visual approach runway eight
Number <number> on approach Usage: Number four on approach (Used to indicate the sequence of the aircraft on approach. Different from the sequence number given by Tower in a landing clearance)
Radar service terminated, squawk one two zero zero, frequency change approved (For VFR aircraft leaving your area of control but not being handed off to another controller. Also used if you are too busy to provide radar service – flight following)
<direction> <number> miles, Report airport in sight Usage: twelve o'clock, eight miles Report airport in sight (Pilot should report when he has the airport in sight. A visual approach clearance cannot be given to a pilot until he has reported the airport in sight)
Report airport in sight <number> miles Usage: Report airport in sight five miles (Pilot should report when he has the airport in sight. He is now 5 miles away)
<runway> <direction> <number> miles, Report runway in sight Usage: runway eight, twelve o'clock, eight miles, report runway in sight

Issuing Traffic advisories

Traffic <number> o'clock, <number> miles, <direction> **bound,** **<aircraft type> <altitude>** Usage: traffic twelve o'clock, six miles, west bound, MD 80, eight thousand (a traffic advisory given to the pilot to indicate an aircraft that may need to be avoided by maintaining visual separation)
Report traffic in sight Usage: Pilot will look for the traffic issued by the controller and advise when the traffic is seen.
Maintain visual separation (Pilot must avoid the other aircraft by maintaining visual separation)
Traffic alert, climb to <altitude> immediately (To avoid another aircraft pilot must climb immediately)
Traffic alert, descend to <altitude> immediately (To avoid another aircraft pilot must descend immediately)
Traffic alert, turn left heading <number> immediately (To avoid another aircraft pilot must turn left to specific heading immediately)
Traffic alert, turn right heading <number> immediately (To avoid another aircraft pilot must turn right to specific heading immediately)
Traffic alert, turn <number> degrees left immediately (To avoid another aircraft pilot must turn left by specific number of degrees immediately)
Traffic alert, turn <number> degrees right immediately (To avoid another aircraft pilot must turn right by specific number of degrees immediately)

Radar Identification

Radar contact (given to the pilot only on first contact after takeoff of departing aircraft or VFR aircraft beginning radar service. Once airborne the aircraft remains in radar contact with all other facilities unless radar service is terminated)
Squawk <4 digit number> Usage: squawk six six five zero (Tells the pilot to tune his transponder to the 4 digits given (0-7)
Squawk <number> and ident Usage: squawk six six five zero and ident (Tells the pilot to tune his transponder to the 4 digits given then press the ident button. This makes his target show up brightly on the radar scope)
Verify you have information <ATIS letter> Usage: Verify you have information Alpha (Pilot verifies he has listened to the latest ATIS broadcast with the ID code Alpha)
turn <number> degrees right for radar identification
turn <number> degrees left for radar identification

Inter-Controller Coordination

Hold for release (used to initiate a delay for an IFR departure at a satellite airport.)
Released: heading <number> climbing to <altitude> released. (Releases an IFR aircraft from a satellite airport.)

Frequency Changes

Contact <facility name> tower <frequency number> Usage: Contact Albuquerque Tower one two zero point tree

Contact <facility name> tower <frequency number> at SUPOT Usage: Contact Albuquerque Tower one two zero point tree at SUPOT
Contact <facility name> center <frequency number> Usage: Contact Albuquerque Center one tree tree point six five
Contact <facility name> approach <frequency number> Usage: Contact Albuquerque Approach one two seven point four
Contact <facility name> departure <frequency number> Usage: Contact Albuquerque departure one two tree point niner

Other

Cleared from <departure airport> as filed, climb and maintain <altitude>, departure frequency <frequency>, squawk <squawk code> (IFR clearance on ground when no Tower)
Standby Usage: When you receive a request for an IFR release clearance from a satellite airport, and you are busy, give him the standby command. He won't ask you again for the clearance for five minutes.
"Then" command. Usage: Reduce speed to 180 knots *THEN* descend and maintain eight thousand.
<airport name> Altimeter <number> Usage: Double Eagle altimeter three zero niner two (Gives the pilot the current barometer pressure setting for his altimeter instrument so he will know his correct altitude for approach and landing. Above 18,000 feet MSL pilots will have set their altimeter to the Standard pressure of 29.92 inches of mercury)
Information <ATIS letter> is current Usage: information INDIA is current (gives the pilot the current ID letter code for the ATIS broadcast)
Go ahead (Confirms the pilot's request to communicate was received and he may proceed to give his request. This is not an approval to "move forward"!)

Affirmative (used by pilots and controllers meaning: “yes”)
Negative (used by pilots and controllers meaning: “no”)

Numbers

#	Spoken as
0	zero
1	won
2	two
3	tree
4	fower
5	fife
6	six
7	seven
8	eight
9	nine ur

Letters

A	alpha	N	november
B	bravo	O	oscar
C	charlie	P	papa
D	delta	Q	key beck
E	echo	R	romeo
F	foxtrot	S	sierra
G	golf	T	tango
H	hotel	U	uniform
I	india	V	victor
J	juliet	W	whiskey
K	kilo	X	eks ray
L	leema	Y	yankee
M	mike		
Z	zulu		