

PROPERTY	DESCRIPTION
///SWS CARRIER CONFIG FILE///	Comment that begins with //
[Title_0]	[Title_X] sections start at 0. There can be multiple [Title_X] if there are many ships of identical configuration identical available. For example, all carriers in the same class could use one configuration file and multiple [Title_x] entries, provided they have the same configuration and relevant dimensions with regard to the meatball, wires, and catapults.
title=CVN-68 USS Nimitz 2017	Title of the simobject as found in sim.cfg or aircraft.cfg
LvarPrefix=sws_cv68_	Prefix used in the beginning of all L:vars used in the model
UshortName=SWS Nimitz	a short name that will be used to identify the ship in the add-ons menu
AirWing=CVW_11_2017	Air Wing title, as written in the Air Wing Configuration File. Contains the list of AI and static aircraft that are used by this carrier. For more info, see Air Wing Configuration Files
VehicleFleet=CVN_68 vehicles	Vehicle fleet file. Contains the list of vehicles and crew objects that are used by the carrier. For more info, see Vehicle Fleet Configuration Files
DeckImage=cv_68_deck.bmp	Top-down image of the carrier's deck, to be used in the Dynamic Deck Editor for parking aircraft. See specifications in Deck Images.
HangarDeckImage=CVN68_HGR_BG_SMALL.png	Top-down image of the hangar deck, to be used in the Dynamic Deck Editor for parking aircraft. See specifications in Deck Images.
TACAN_chan=88X	TACAN channel for that specific ship. If a TACAN line exists in this section, it will override the section named [TACAN]
ICLS_chan=14	Instrument Carrier Landing System channel. If this line exists in a title section, it will override the ILS section
LINK4_freq=275	Frequency of Autoland System. The aircraft must tune to this frequency and request Autoland in order to receive an ACLS/PALS signal. ACLS implementation needs to be done aircraft-side. For variables, see ICLS paragraph in Aircraft Implementation chapter. Overrides [LINK_4] section if it exists here.

[GENERAL]	[GENERAL] section is shared by all ships in the cfg file and contains basic ship & developer information.
maxSpeed = 31.0 //Knots	Maximum speed that the ship can achieve
hardDeck = 1 //1 if ship has hard deck	Whether the ship has a hard deck to allow aircraft/helicopter operations
length = 333	Length of the ship at the waterline. Used for pitching deck.
beam = 41	Beam of the ship at the waterline. Used for pitching deck.
displacement = 100000	Displacement of the ship in metric tons. Used for pitching deck.
devLogo=sws_logo.bmp	Logo of the ship developer. Will be present at the top-left corner of the Dynamic Deck Editor when the ship is selected. Black colour is transparent. PNG with alpha can also be used.
maindeckImageSize=90.969,330.35	Size of the ship at as portrayed in the deck image. Metres
Maindeckimageoffset=46.954,195.95	Model origin coordinates in metres, from the top left corner of the image image. First value is horizontal, second is vertical.

[Carrier]	[Carrier] section is shared by all ships in the cfg file and contains basic information for the ship's launch & recovery equipment
numWires=4	Number of arrestor cables present on each ship of the class. Can be up to 40
numCats=4	Number of catapults available on each ship of the class. Can be up to 40
numTractors=2	Number of Tractor Types available on each ship of the class. I.e. a deck tug and a spotting dolly are two different types.
deckAngle= 9.3//Landing area degrees left of boat Z axis (must be exact)	Offset of the angled deck from the centreline of the ship. Positive values means that the deck is angled to the left
mainDeckHeight=17.95184	Height of the ship's flight deck above the ship origin
hangarDeckHeight=7.81861	Height of the ship's hangar deck above the ship origin

[TRACTOR_1]	[TRACTOR_X] entries are used to summon tow tractors by the user.
deckTractorName=AS32A Deck Tractor CVN-68	Title of the tractor SimObject that will be used
useWith=CVN-68 USS Nimitz 2017	Limits use of this specific tractor to a specific carrier. This section is optional.
ExcludeNums=15,16,13,10,9,5,12,18	Used to exclude certain tractor numbers. I.e. if number 15 exists as a static tractor on the ship, you don't want a second 15 to spawn and tow the user. This section is optional.
Script=(A:PLANE ALTITUDE,feet) 40 >	Optional XML script. With this script you can set specific conditions for this tractor to appear only under certain conditions. This example will make our AS32A appear only when it's called at an altitude of 40ft or higher, which means that our player is above the hangar deck.

[TRACTOR_2]	[TRACTOR_2] entry similar to the above
deckTractorName=SD-2A Spotting Dolly CVN-68	This is the Spotting Dolly vehicle that is used to tow & park aircraft in the hangar deck
useWith=CVN-68 USS Nimitz 2017	This vehicle will only be used when on SWS CVN-68 2017
	Intentionally omitted ExcludeNums line
Script=(A:PLANE ALTITUDE,feet) 40 <=	The Spotting Dolly will only appear when called in the hangar deck. This way the user will see the appropriate vehicle when he's in the hangar, enhancing realism

[TRACTOR_3]	Another [TRACTOR_X] entry
deckTractorName=AS32A Deck Tractor CVN-69	Truck title
useWith=CVN-69 USS Dwight D. Eisenhower 2017	Used for Ike
Notice how the remaining entries are missing, as they're	

[OLS_1]	[OLS_X] entries are used to add Visual Landing Aids to the ship, which are used to guide aircraft on approach
type=4	O=mk6mod0, 1=mk6mod1, 2=mk6mod2, 3=mk6mod3, 4=IFLOLS, 5=MOLS, 6=Paddles
offset= -40.68117,18.382,11.92099	Coordinates of the OLS center (glideslope light at height of reference datum) relative to the ship centre. Used for calculation of glideslope and hook-to-eye correction. Positive values are (starboard, up, forward). Metres
useSimObject=IFLOLS	Optional line: if you don't wish to build the OLS into your ship, you can use a separate model that will be attached at the coordinates above. This will allow fast modification of existing, older carriers for use with CEX and our ready-to-use simobject.
simObjectAddedHdg= 0.0	By default the OLS will be rotated to match the angled deck. If you wish to further rotate the object, use a positive value to rotate counter-clockwise or negative for clockwise.

[AIMPOINT_1]	[AIMPOINT_X] section is used to describe the hook touchdown point on aircraft carriers. The OLS will guide the aircraft to that spot.
offset= -3.071105, 17.95184, -60.42768 //XYZ offset of optimum hook touchdown point, used by OLS and LSO	Coordinates of the hook touchdown point in metres. Positive values are (starboard, up, forward).
[LRLS]	[LRLS] section is only used if an LRLS device is installed. The LRLS helps the aircraft line up to the landing area centreline at long distances up to 10nm
offset=8.22231, 12.142, -127.54922	Offset of the LRLS object from the ship's centre, in metres. Positive values are (starboard, up, forward)
useSimObject=LRLS	Optional line: if you don't wish to build the LRLS into your ship, you can use a separate model that will be attached at the coordinates above. This will allow fast modification of existing, older carriers for use with CEX and our ready-to-use simobject.

[WIRE_1]	[WIRE_X] sections describe each arrestor cable available on the carrier. Numbering begins at 1, starting with the rearmost cable. Any number of cables can be supported, as long as the bone limits of FSX/P3D aren't exceeded. IMPORTANT NOTE: FOR CEX WIRES TO FUNCTION, THERE SHOULDN'T BE ANY DEFAULT FSX CABLE ATTACHPOINTS PRESENT IN THE MODEL!
offset=-0.09848,18.02684,-78.58076	X,Z,Y distances of the middle of the wire, in meters from the carrier model origin. Positive values are (starboard, up, forward)
runout=184.817753,200	The first number is the maximum length the cable can be pulled along the runway centerline, measured in meters. The second number is the maximum value of the L:var used for the pull animation.
left=15.914905,-100	The first number is the distance from the centerline of the runway to the left cable attachment point in meters. The second number is the minimum value of the L:var used for the Left/Right animation.
right=16.270044,100	The first number is the distance from the centerline of the runway to the right cable attachment point in meters. The second number is the maximum value of the L:var used for the Left/Right animation.
height=5,5	The first number is the maximum height in meters above its neutral position, at which the wire can be pulled. The second number is the maximum value of the L:var that controls the height pull.

[CATAPULT_1]	Section describing each catapult of the carrier. Numbering starts at X=1
type=1	Only type supported currently is 1 (Steam). Hydraulic & EMALS coming later
startOffset= 17.39621, 18.015, 90.86006 //XYZ of shuttle starting position	Offset of the catapult shuttle's starting point from the ship's centre, in metres. Positive values are (starboard, up, forward)
endOffset= 8.57206, 18.015, 187.386 //XYZ of shuttle ending position	Offset of the catapult shuttle's end point from the ship's centre, in metres. Positive values are (starboard, up, forward).
numJBDs=6	Number of JBDs available on this catapult. In the near future, independent operation of each JBD will be introduced, so if aircraft size is too large, certain parts will not be raised. An example is the launch of A-3s, where only the outer fences were raised as the tail was over the middle pieces.
useShooter=true	Whether the carrier will use a shooter simobject that isn't built-into the carrier model
shareShooter=2	Indicates whether the shooter of this catapult is shared with another one. In this case, Catapult 1's shooter is also shared by Catapult 2
shooterOffset=5.998, 17.95184, 95.804	Coordinates where the shooter will appear for use with Cat #1. The coordinates indicate where his feet will be planted when idle. Measured from the ship's centre in metres. Positive values are (starboard, up, forward).

[CATAPULT_2]	Catapult 2 description
type=1	
startOffset= -4.03745, 18.015, 89.62294	
endOffset= -7.24072, 18.015, 186.49103	
numJBDs=6	
useShooter=true	
shareShooter=1	Shooter shared with catapult 1
shooterOffset=5.998, 17.95184, 95.804	Coordinates where the shooter will appear for use with Cat #2

[CATAPULT_3]	Catapult 3 description
type=1	
startOffset= -20.27502, 18.015, -4.0267	
endOffset= -28.72367, 18.015, 92.53271	
numJBDs=6	
useShooter=true	
shareShooter=4	Shooter is shared with catapult 4
shooterOffset= -12.27502, 17.95184, 6.0267	Coordinates where the shooter will appear for use with Cat #3

[CATAPULT_4]	Catapult 4 description
type=1	
startOffset= -32.43238, 18.015, -22.40224	
endOffset= -32.4325, 18.015, 74.52612	
numJBDs=4	
useShooter=true	
shareShooter=3	Shooter is shared with catapult 3
shooterOffset= -24.27502, 17.95184, -12.0267	Coordinates where the shooter will appear for use with Cat #4. If they're different to the shared catapult's, like here, the shooter will warp between positions, depending on which catapult is active and has priority

[HELIPAD_X]	[HELIPAD_X] entries are used to mark helicopter pads on a ship's deck. Multiple helipads are supported. Numbering begins with 1
eyepointOffset=5.12843, 17.95184, -109.03516	Coordinates where the helicopter's cockpit will be when landed. This is used as an aimpoint for landing and launching helicopters. Measured from the ship's centre in metres. Positive values are (starboard, up, forward).
heading=-9.3	Heading of the helipad relative to the ship's centreline. Negative values are left of CL
approachVector=0	Heading of the helicopter relative to the helipad when approaching. A vector of 0 means that the helicopter is approaching from behind. Non-zero vectors will mean that the helicopter will come diagonally or sideways onto the helipad, depending on the angle.
departureVector=-120	DepartureVector is indicating how the helicopter will depart the helipad after it is airborne. An angle of -120 means that the helicopter will clear the helipad flying left and back. Direct means that the helicopter will fly straight out. If this line is omitted, the approachVector will be used as a departureVector.
maxRadius=50	maxRadius limits the size of helicopters which will be allowed to land here.

[VISIBILITIES]	Section containing L:vars that are synced with CEX and control animations or visibilities. Use the L:var name without the prefix
var_1=elev_1	var_X is used to list the unprefixed variables. This line means that sws_cvn68_elev_1 will be used for the
var_2=elev_2	
var_3=elev_3	
var_4=elev_4	

[TACAN]	Contains information for the ship's TACAN
channel=90Y	TACAN channel
mHz=	TACAN frequency in mHz. Can be blank
power=	Power requirement of TACAN system, in Watts. Can be blank
ident=DPU	Letters for Morse Code Identification. Can be blank

[ILS]	Contains information for the ship's ILS
channel=19	ICLS channel, can be from 1-20. Aircraft need to tune to this channel to receive ICLS data
mHz=	You can input the ICLS frequency in MHz format. Can be blank
ident=	Letters for Morse Code Identification. Can be blank

[LINK_4]	Section used for Autoland system (ACLS/PALS)
mHz = 354 //UHF datalink frequency (225-400mhz)	Frequency of Autoland System. The aircraft must tune to this frequency and request Autoland in order to receive an ACLS/PALS signal. ACLS implementation needs to be done aircraft-side. For variables, see ICLS paragraph in Aircraft Implementation chapter
acl = 4 //0=none, 1=SPN-10, 2=SPN-42, 3=SPN-42A 4=SPN-46	

[PLATS]	Section describing the PLATS camera system (coming soon)
centerlineCameraOffset1 = -14.7392, 17.95184, 13.36812	Coordinates where PLATS camera will be located. Measured from the ship's centre in metres. Positive values are (starboard, up, forward). Centerline cameras are always looking aft in the direction of the Landing Area.
centerlineCameraOffset2 = 0	Coordinates where PLATS camera will be located. Measured from the ship's centre in metres. Positive values are (starboard, up, forward). Centerline cameras are always looking aft in the direction of the Landing Area.
islandCameraOffset = 23.8077, 25.73354, -7.9198	Coordinates where island camera will be located. Measured from the ship's centre in metres. Positive values are (starboard, up, forward).

[PARKING]	Saved parking spaces where the user can warp to.
pos_0 = 17.716712,19.983875,86.247822,355.100476	Coordinates of Parking Position. Positive values are (starboard, up, forward). Numbering of positions begins at 0
name_0 = Catapult 1	Name of Parking Position which will appear in the "Warp to Deck" menu
pos_1 = -3.924358,20.010076,85.343603,358.152678	
name_1 = Catapult 2	

[FLIGHT_DECK]	Flight deck outline. Used to calculate the flight deck area when aircraft are being placed through the Dynamic Deck Editor. Contains a list of the points that describe the deck's outline, working clockwise looking from above. Numbering starts at 1
point_1=-12.5685,194.25336	point_x: contains the X & Y coordinates of the point. Positive values are starboard, forward. Height is not
point_2=12.56245,194.319149	
point_3=19.23956,119.672528	
point_4=36.52294,95.60811	
point_5=36.522418,-79.30767	
point_6=33.86277,-79.43992	
point_7=34.107866,-80.92685	
point_8=30.339842,-80.9476498	
point_9=27.2319,-111.72245	
point_10=20.70914,-117.4873	
point_11=21.99206,-126.06966	
point_12=-15.4904,-131.6293	
point_13=-17.94797,-93.288069	
point_14=-36.88846,-88.30610	
point_15=-36.93734,-57.97469	
point_16=-36.3151,-57.530977	
point_17=-36.34641,-30.341579	
point_18=-38.988399,-30.30009	
point_19=-38.960,-27.09934	
point_20=-36.3854,-27.03356	
point_21=-36.34242,41.705	
point_22=-40.18383,63.91021	
point_23=-40.12094,90.70645	
point_24=-19.0914,119.33712	

[HANGAR_DECK]	Hangar deck outline. Used to calculate the hangar deck area when aircraft are being placed through the Dynamic Deck Editor. Contains a list of the points that describe the deck's outline, going clockwise.
point_1=-14.921,109.179966	point_x: contains the X & Y coordinates of the point. Positive values are starboard, forward. Height is not needed as the deck height is taken from hangarDeckHeight in the [Carrier] section. Numbering starts at 1
point_2=10.66,109.13788	
point_3=13.399,77.6	
point_4=13.9,-32.426	
point_5=12.5955,-98.742	
point_6=18.82,-131.14564	
point_7=-19.5118,-134.02	
point_8=-24.5948,-129.779	
point_9=-13.91397,-99.197789	
point_10=-15.48118,-31.91218	
point_11=-16.0818,33.936	

[LA_FOUL_AREA]	Landing Area Fouling Zone. Used to check whether the user aircraft or ones placed through the Dynamic Deck Editor foul the landing area. Contains a list of the points that describe the Foul Area's outline, going clockwise.
point_1=-39.7564328,90.048256	point_x: contains the X & Y coordinates of the point. Positive values are starboard, forward. Height is not needed as the deck height is taken from mainDeckHeight in the [Carrier] section. Numbering starts at 1.
point_2=-17.67989,129.9124335	
point_3=0.38797,16.7406346	
point_4=18.16384,-76.82969	
point_5=16.56036,-80.95364789	
point_6=22.3941,-116.12297	
point_7=21.7857336,-127.717466	
point_8=-9.302557,-130.09166	
point_9=-36.105275,34.51864	

[ELEVATOR_1]	Elevator_X outline. Used to check whether the user or static/AI aircraft are on the elevator. Contains a list of the points that describe the elevator's outline, going clockwise. Numbering starts at 1
lvar=elev_1	Prefixed Local Variable that is used to animate the elevator. Elevator L:vars use a range of 0-1, 0 being up and 1 being down.
point_5=36.455,44.481	point_x: contains the X & Y coordinates of the point. Positive values are starboard, forward. Height is not needed as the deck height is taken from mainDeckHeight in the [Carrier] section
point_4=20.73497,44.481	

point_3=20.7382,65.7108	
point_2=28.268975,65.671338	
point_1=36.455,71.10637	
transX=-1.0	The amount in meters that the elevator moves in the ship's lateral axis as it moves from the flight deck to the hangar deck. Here the elevator track is not straight vertical, and elevator 1's hangar deck position is 1 meter left (towards the center of of the ship) of its flight deck position. Note that you can also add a "transZ" value, which specifies fore-and-aft movement, but we know of no real-world carriers with elevators which move fore-and-aft.

[ATTACHED_OBJECT_1]	[ATTACHED_OBJECT_X] sections are used to attach simobjects to the ship for things that cannot be built into the model. These objects are usually ambient objects used to provide extra detail. Numbering starts at 1
title=Crew modern LSO CVN-68 2017	Title of the SimObject as it appears in sim.cfg or aircraft.cfg
offset=-19.93128, 17.95, -100.04598	Coordinates where the object will appear. Positive values are (starboard, up, forward).
PBH=0.0,0.0,0.0 //right, up, forward	Bank, pitch and heading of the object in degrees. Positive values are (right, up, forward)
script="(L:sws_cvn68_LSO_station_active, bool) 0 !="	XML script. When evaluated to true, the object will appear, otherwise it will remain hidden. Optional. If omitted, object will always be visible
autoPrefixScript=false	If set to True, the script will be generic and the appropriate prefix will be automatically added, depending on the ship that is present. If false, prefixes are ignored and if needed must be written explicitly in the script, like in this example.

[UI_ANIMATION_X]	[UI_ANIMATION_X] entries describe custom animations that can be toggled through the Dynamic Deck Editor. Numbering starts at 1
title=Elev Door 1 //name in UI	Title of the animation, will appear on the Dynamic Deck Editor as a caption
lvar=hangar_door1 //Lvar driving animation	Lvar of the animation, as used in the model (less prefix)
level=1 //which image to overlay on, 0=flight,1=hangar	Deck level on which the animation will be shown in the DDE. If 0, mouse area appears on the flight deck, if 1, mouse area will be shown on the hangar deck
autoPrefixScript=true //Lvar prefix will be added at runtime	If set to true, the prefix will be added automatically, depending on which carrier is selected in the Dynamic Deck Editor
point_1=11.7382,65.7108 //Points defining polygonal clickspot	point_X lines are used to draw a polygonal clickspot on the Dynamic Deck Editor. Coordinates are measured in meters from the center of the carrier model, and should proceed clockwise around the area when looking from above. Positive values are (right, forward).
point_2=13.7382,65.7108	
point_3=13.73497,44.481	
point_4=11.73497,44.481	
state_1=Auto, 0,0,255,0 //name, value, RGB value x3	state_X indication that will appear on the Dynamic Deck Editor. First value is name which will appear in caption. Second value is the L:var value that will be set for that state. Last three values are the RGB value for color-coding the polygon. Name, R, G, B format. When the user clicks on the mouse area, the state will increment (state_1 -> state_2 -> state_3, etc.) and then rollover from the last state defined back to state_1.
script_1="(A:AMBIENT WIND VELOCITY, knots) 27 < if{ 0 } els{ 100 }" //script to run instead of using value	Optional line: XML script which will drive the animation when this state is selected. If a script is defined, the second value of the state_X line ("lvar value") is ignored, and the result of the script will drive the animation. The script is run every 1.5 seconds. In this example, state_1 is captioned "Auto", the clickspot will be green, and the hangar doors are automatically closed in high wind conditions to avoid letting sea water into the hangar.
state_2=Open, 0,255,255,0 //mouse area shows up yellow. no script_2, so sets 0.0 (door open)	State 2 indication that will appear on the Dynamic Deck Editor. Second value is the L:var value for that state. Last three are the RGB value for color-coding the polygon. Name, R, G, B format.
state_3=Closed, 100,255,0,0 //mouse area shows up red, no script_3, so sets lvar 100 (door closed)	State 3 indication that will appear on the Dynamic Deck Editor. Second value is the L:var value for that state. Last three are the RGB value for color-coding the polygon. Name, R, G, B format.