Nimitz for arma3 documentation

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Introduction

Welcome to the Nimitz for ArmA 3 project! The carrier is based on the outstanding work of JDog with the Nimitz for ArmA 2. The Nimitz for ArmA 3 project is a faithful conversion of his work, with improvements to scripts and textures and model so far. This documentation is based on the blueprint laid out by JDog for the ArmA2 mod and shall cover the same aspects.



Screenshot by TeTeT

Credits and License

- Odyseus for an all new model and approach to the carrier!
- sjones for sounds and testing
- Mr. Ewok for the sound vehicle
- Yanko for the weight on take-off script
- Arindfle for the approach script for AI
- Pennywize for testing
- TheSn4k3 for testing
- Moon_chilD for testing
- Elvaron for testing
- Lordprimate for testing
- Nimitz skype chat for various tests and suggestions

Honourable mentions and further contributors

JDog - Nimitz for Arma2 piedebeouf - new lights and starting the initiative for conversion Sealife - pointing to the missing crew John_Spartan - consulting and arrest script Phantom - upgraded elevator script rundll - permission to use his towing script in Arma3 Sierra - new deck textures armyinf - testing and documentation BloodOfTheScribe - new interior textures asbojay - new hull and deck textures soldier2390 - new hull textures, including secondary textures rory_pamphilon - top gun mission TeTeT - some scripts

The Nimitz for ArmA 3 project uses the same licenses as the Nimitz for ArmA 2: Scripts and textures use the <u>Attribution-NonCommercial-ShareAlike License</u> from <u>Creative Commons</u>.

All models use the <u>Attribution-NonCommercial-NoDerivs License</u> from <u>Creative Commons</u>.

Download and File Contents

The download page for the Nimitz is on Armaholic at http://www.armaholic.com/page.php?id=23049 The download for 0.94alpha2 contains the following files

./@Nimitz ./@Nimitz/addons ./@Nimitz/addons/dll_tow.pbo ./@Nimitz/addons/dll tow.pbo.TeTeT.bisign ./@Nimitz/addons/JDG carrier.pbo ./@Nimitz/addons/JDG_carrier.pbo.TeTeT.bisign ./@Nimitz/addons/JDG carrier Fake Veh.pbo ./@Nimitz/addons/JDG_carrier_Fake_Veh.pbo.TeTeT.bisign ./@Nimitz/addons/JDG_mk29SeaSparrow.pbo ./@Nimitz/addons/JDG mk29SeaSparrow.pbo.TeTeT.bisign ./@Nimitz/addons/JDG shooter anim.pbo ./@Nimitz/addons/JDG_shooter_anim.pbo.TeTeT.bisign ./@Nimitz/addons/TeTeT.bikey ./@Nimitz/addons/ttt_nimitzfunctions.pbo ./@Nimitz/addons/ttt nimitzfunctions.pbo.TeTeT.bisign ./@Nimitz/logo_nimitz_ca.paa ./@Nimitz/mod.cpp ./ArmA2NimitzReadme.pdf ./ArmA3Nimitz.pdf ./ArmA3NimitzModules.pdf ./Changelog

./Credits ./files.manifest ./Install.txt

Note that some content has been transferred from ArmA 2, namely the ArmA2NimitzReadme.pdf. Eventually these files will be phased out. This version of the README supersedes the Players part of the ArmA2NimitzReadme.pdf completely. However mission makers might still want to refer to JDog's original documentation.

Players

The Nimitz is a static entity in the game, meaning it can neither drive nor can it be destroyed. Depending on the intention of the mission maker certain functionality of the Nimitz can be enabled or disabled, please see the mission documentation for details. A fully enabled Nimitz will have the following functionality available:

- 1. Elevators there are four elevators for planes connecting flight deck and hangar and one elevator for weapons, connecting weapons room and flight deck
- Catapults these launch planes from four positions on the flight deck, named 1 to 4 from starboard to port; in reality catapult 4 cannot help to take off fully loaded planes due to lack of wing lift
- Jet Blast Deflectors protect the flight deck from the jet engines' exhaust and are located behind the catapult systems; usually lowered unless a plane uses the catapult in front of it
- 4. Arresting wire system these are four wires across the flight deck, slowing down a landing plane
- 5. Boat system located on the hangar level, the boat room offers access to zodiacs or even SDV for the mission; boats can be lowered from the boat room and be recovered from the sea level
- 6. IFLOLS the improved fresnel lense optical landing system is a device helping pilots on final to approach to make a good landing. If the center light of the system can be seen (the meatball), the plane is on a 3.5 degree descent, if the upper light appears the plane is too high, if the lower light appears the plane is too low
- 7. Repair a player can inspect a plane and upon finding damage it can subsequently be repaired

Carrier Basics

Some terms that may help with operating the Nimitz:

Bow - the front of the ship Stern - the rear of the ship Port - the left side of the ship Starboard - the right side of the ship Fore - towards the bow Aft - towards the stern Hull - the "body" of the ship Flight deck - the top of the carrier, where aircraft operations take place Hangar bay - the large interior cargo bay which stores and maintains aircraft Bridge - the room from where the ship is commanded Island - the large superstructure on the deck which houses the bridge Elevators - large lifts that transport cargo between the flight deck and hangar bay Catapults - steam-powered device used to launch aircraft from a carrier Jet Blast Deflector - safety device that redirects the exhaust from aircraft as it lands

Getting around

There are multiple paths to get to any spot on/in the carrier. From the flight deck you may access to lower levels via the stairwell in the island or entrances on either side at the stern of the ship. You may also use the elevators, however they may sometimes be a slower method. To use any of the Elevators linking the hangar bay to the flight deck, simply stand on them and use the "Elevator Up" or "Elevator Down" action that appears, or use the nearby control panel.

Catapult launches

To use any of the four catapults on the fight deck:

- Taxi your aircraft up past the jet blast deflector (marked with a yellow square around its border), use the 'catapult' action (most likely last entry in your action list, highlighted in blue).
- You will be locked into the catapult. Lower your flaps fully, wait for the Jet Blast Deflector to raise, and push the throttle to full.
- Use the "Salute" action and you will be launched from the deck in moments.
- Catapults take 15 seconds to reset for another launch.

IFLOLS & Arrested landings

The Nimitz is able to arrest the landing of fixed-wing CTOL aircraft. Pilots have a 120foot span of the flight deck in which they are able to catch one of four cables. Setting the plane down low enough anywhere in that area will bring your aircraft to a stop down the deck. To enable the options for landing, such as IFLOLS assistance and lowering your tailhook, you must:

- 1. Be coming in at the proper landing angle to the ship (see below)
- 2. Speed must be below 350, altitude below 250 (any speed for IFLOLS)
- 3. Within 5km of the carrier (3.5km for IFLOLS)

Upon entering a landing path for the Nimitz you will have the option "IFLOLS" in your actions. Activating this will bring up the Improved Fresnel Lens Optical Landing System. In-game, this is simply a display on your HUD that will guide you onto the correct glide slope for landing. Ideally you will come in to the runway at a 3.5-degree angle. If you are on this glide slope, the center amber light, the "meatball," will be aligned with the green row of "datum" lights. If you are too high, the meatball will be above the center row of lights, and below if you are coming in too low. Red "wave-off" lights mean you are dangerously low and should come around to attempt another landing. If the green "cut lights" at the top of the display light up, you are just over the deck and should cut your engines to bring yourself onto the cables.



IMMEDIATELY after touching down on the deck, push your throttle back to full in case you miss the wires, so that you will have enough speed to make it back off of the deck. This is referred to as a "bolter."

The arresting system takes 25 seconds to reset after its cables release from an arrested aircraft.

Important notes about landing on the carrier for the safety of yourself and others:

- 1. Do not come in to landing on the ship down its length (straight from stern to bow), but rather angled and
- 2. Maximum speed when touching down should be no greater than 135 knots (250 kph). Going faster than that will tear the wire.





Aircraft Maintenance

Refueling

To refuel on the Nimitz, find the black fuel hoses between the 1 and 2 elevators on the deck. Pull up close to one, facing the same general direction as the ship so that the hose is on your right side. You will get an action to "Begin Fuel Transfer". Your fuel levels will slowly fill and automatically stop at 100%, though you are free to cancel the fuel transfer at anytime.

Boat Deployment

The Nimitz is equipped with davits to launch and retrieve CRRCs and other boats. This room is located starboard of the ship on the hangar bay level, close to elevator 3. There is a sample boat in the room where you can request a boat for yourself, provided that the davits are not already in operation. Note that the Nimitz boat module needs to be set in the mission and the player needs to be synced with the module.



Image source:

http://commons.wikimedia.org/wiki/File:A_U.S._Navy_F-A-18F_Super_Hornet_aircraft_assigned_to_Strike_Fighter_S guadron_(VFA) 154 lands aboard the aircraft carrier_USS_Nimitz (CVN_68) in the Gulf of Oman_June 19, 2 013_130619-N-GA424-177.jpg

By MC2 Jacquelyn D. Childs [Public domain], via Wikimedia Commons

Notes

Some words on landing on the Nimitz. The flightdeck is, compared to a land based runway, really short. For landing it is even shorter, as not the full length of the carrier's flightdeck is supposed to be used. Rather a pilot shall use the angled flightdeck, that is approaching from aft starboard. This leaves the bow and catapult 1 and 2 for take off operations.

Depending on the mode of operation the flight deck is more or less crowded. However, during combat operations the flight deck is supposed to be nearly empty. If the ambiance module is enabled the flight deck resembles a mixed mode, where catapult 1 and 2 are blocked by parking aircraft and 3 and 4 are used for take-off.



Image source:

http://commons.wikimedia.org/wiki/File:A_U.S._Navy_F-A-18F_Super_Hornet_aircraft_assigned_to_Strike_Fighter_S guadron_(VFA)_154_launches_from_the_aircraft_carrier_USS_Nimitz_(CVN_68)_in_the_South_China_Sea_May_2 2,_2013_130522-N-TX484-141.jpg

By MC3 Derek W. Volland [Public domain], via Wikimedia Commons

Editor (Mission Makers)

The Nimitz uses a mix of builtin functions and modules for its functionality. This means that by simply placing the carrier on the map the elevators will work automatically, planes will be able to use the catapult, refueling and arresting wire system, units will be able to use the repair functionality. The other functionality is disabled.

In case the use of the builtin functions is not desired, set a global variable to false: *TTT_builtin* = false; publicVariable "TTT_builtin"

While there is a module for every subsystem, a mission maker does not necessarily need to use them directly. Rather there are three high level modules that offer placing objects at the flightdeck, hangar or briefing room levels and take care of the needed synchronization with lower level modules. For a complete list of modules and their means, please have a look at http://tspindler.de/arma/arma3/nimitz/html/

Note that the global variable nimhang4 is deprecated, but can be reinstated by placing *'nimhang4 = ["nimhang4", this] call TTT_fnc_global'* in the ship's init line. Please refer to the ArmA2NimitzReadme.PDF for anything else, it's still valid.



http://commons.wikimedia.org/wiki/File%3AA_U.S. Navy_F-A-18F_Super_Hornet_aircraft%2C_top%2C_assigned_t o_Strike_Fighter_Squadron_(VFA)_154_launches_from_the_aircraft_carrier_USS_Nimitz_(CVN_68) as a Marine_ Corps_F-A-18C_Hornet_assigned_to_Marine_Fighter_130617-N-AZ866-126.jpg By MCSA Kelly M. Agee [Public domain], via Wikimedia Commons

The Editor Icon & Carrier Placement

To place the carrier in the map, simply select it under

Empty > Ship > USS Nimitz or BLUFOR > US Navy > Ship > USS Nimitz

Selecting the Empty version will allow you to see the colored version of the icon. Note that the ship is not controllable and selecting Player for control will do nothing. The Editor Icon was made for your convenience in placing objects and vehicles. When it appears you will instantly recognize the outline of the ship's deck in black, along with major features of the deck: catapult lines, JBDs, cables and the runway path, as well as where the elevators are. The elevators default position when the ship spawns is level with the deck, never the hangar bay.

In red is the outline of the interior hangar bay, so that you can accurately place vehicles inside. Again in green are the stern interior hallways on the second level. You will also notice, to the left of the bow, 3 numbers. These numbers represent the height at which you should spawn your objects (via *setPosASL*) for each level. Deck: 18, Hangar: 7, Interior: 13. Remember, *setPosASL*, NOT *setPos*.

Addon Makers

As specified in the ArmA2NimitzReadme.PDF a plane that provides *tailhook* and *pointFuel* memory points will get the appropriate animations upon landing (wires) and fueling (fuel hose).

KNOWN ISSUES

New:

o mission on dedicated server restarts when Nimitz is spawned via Zeus o hangar on icon does not match hangar of model o containers and other items are not pushed by the elevators, just vehicles

Textures:

o new textures at times stretched, especially in hallways

o texture missing at elevator 3

o JBD 4 still has old textures

o not all carrier areas freshly textured, hangar 4 for example

o missing ceiling texture in hangar 4, small room

General:

o carrier not assembled correctly when place too far off map

o water access platform not working well yet, weird texture

o high possibility to glitch through floor at Nimitz information poster

o towing module for Nimitz still needed for ambiance module
o shooter animation not mirrored on cat 4
o see through wall glitch in hallways
o rescue module boats are quite far from carrier
o wires on some planes get drawn up in the air
o flight operations still very experimental
o light only gets created on a client, not on all
Aircraft:
o vanilla arma3 planes don't work to well with the carrier
o UAVs don't work at all with the carrier
Elevator:
o weapons elevator at times not functional going up
o weapons elevator can be quite deadly

WORK AROUNDS

On some places the carrier seems to work better than on others. If you get glitches, especially in the hangar falling through the floor, try to move the carrier a bit or change direction and see if it works better.

The carrier flightdeck is usually between 17 and 17.5 meters. During testing it was found that placing vehicles slightly higher (18 meters) and giving them a downward velocity in init worked well. A line to use in init is: this setVelocity [0,0,-0.5];

This does not apply to the man class.

Disclaimer

This is NOT an official ArmA3 addon and a product from hobbyists, working on this in our spare time.



Screenshot by TeTeT