NAVAL OPERATIONS

1 Introduction

Particular efforts have been done in BMS to make the naval operations more attractive.
The key points are:

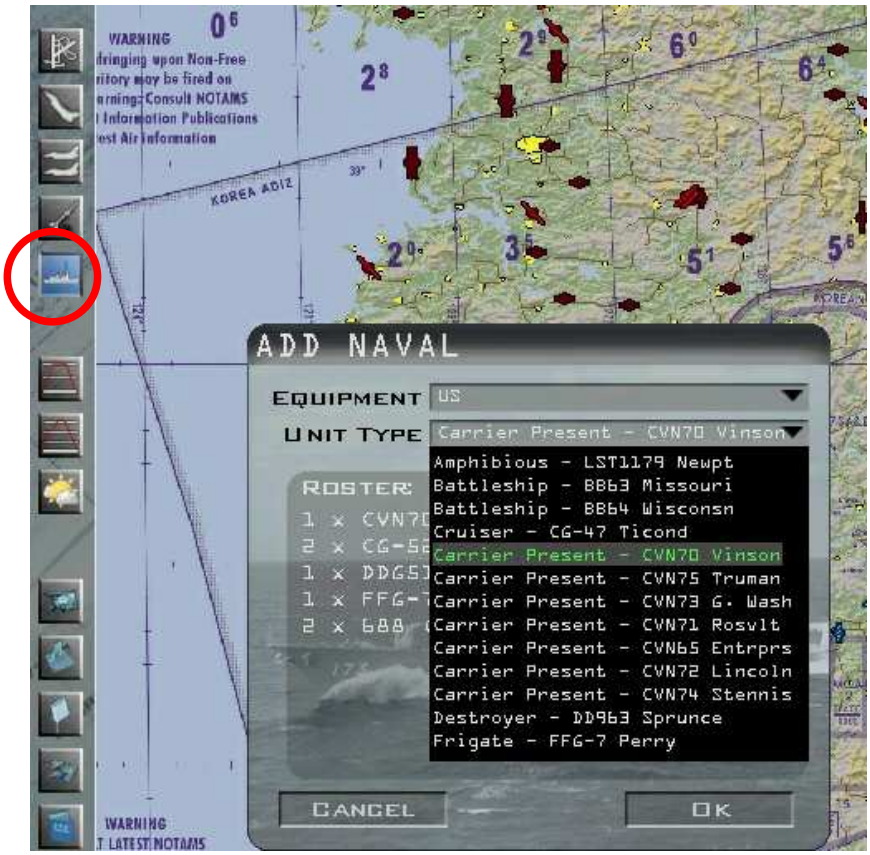
- Possibility to add naval units directly in the Mission Planner
- Carriers are now acting as real “airbases” with Air Traffic Control (ATC) & TACAN
- AI are able to spawn, taxi, take off, and land on carriers
- Carrier operations have been heavily improved for the Advanced Flight Model (AFM)

2 Creating carrier with airbase

STEP1: Add Task Force

There is a new icon that allows adding naval unit.
Pick up a carrier in the list.

Be aware that you can not have two carriers of the same name (i.e. same carrier) in the same mission. This will ruins the ATC code attached to the carrier.



NAVAL OPERATIONS

STEP2: Add Squadron

Click on the airbase icon, and click on the carrier icon or on any airbase on the map, Add Squadron page will popup.
You can notice that now your task force is listed as airbase.
Choose your aircraft type and task force as airbase.

You can also directly use the add flight or add package button.
In that case, the task force will be listed in the air base list.

Basically, as soon as the task force is created, everything acts as if the carrier was a land airbase.

NAVAL OPERATIONS

3 Flight plan

The carrier is following a predetermined pattern (square).

During a mission flown from a carrier, the flight plan is automatically updated so that the landing waypoint is where the carrier really is.

This is updated in the UI and in flight.

4 Setting up ATC & TACANS

The best way to find the correct radio frequencies is to use DTC page with the button “Set Tower”

NAVAL OPERATIONS

TACAN channels and UHF/VHF for carriers are:

TCN UHF VHF
VINSON
010 X 226000 116000
ROOSEVELT
011 X 226100 116100
TRUMAN
012 X 226200 116200
WASHINGTON
013 X 226300 116300
LINCOLN
014 X 226400 116400
STENNIS
015 X 226500 116500
IKE
016 X 226600 116600
KENNEDY
017 X 226700 116700
KITTY HAWK
018 X 226800 116800
CONNIE
020 X 226900 116900
AMERICA
021 X 227000 117000
MIDWAY
023 X 227100 117100
INDEPENDANCE
024 X 227200 117200
RANGER
025 X 227300 117400
SARATOGA
027 X 227400 117500
ENTERPRISE
028 X 227500 117600

NAVAL OPERATIONS

5 Taxi & Take Off

You can commit ramp/taxi or take off though it is recommended not to commit to take off. AI are able to taxi now on carrier and will follow taxipoints like on land.

Taxi Start : notice wings when parked

Only the two front catapults can be used. **The leader is supposed to take the left catapult.**

OFM is not really supported for carrier operations. Use AFM only.

NAVAL OPERATIONS

Procedure for Catapult

Step1: Approach at low speed and well aligned with the catapult

Step2: Continue aligned and at slow speed until the aircraft enters into catapult and nose is automatically compressed. Once the nose has finished compress and catapult is ready, a red message is displayed on the screen.

NAVAL OPERATIONS

Catapult ready: notice nose gear compressed and steam

Step3: You can now apply full afterburner in preparation of release

NAVAL OPERATIONS

Step4: SHF + K will release catapult, notice your nose going up while the nose gear is released which helps the aircraft to take the correct pitch.

Nose gear compression released

You wingman is catapulted after you, beware of possible collisions though.

NAVAL OPERATIONS

Procedure for Landing

The approach for landing shall be like a real approach on carrier (means hard slope), accurate landings are now possible with AFM , so you don't need to have a flat approach like with OFM.

Arrestors are properly simulated so you will not catch a cable if you don't touch in the correct arrestor area.
As an example in the picture below, the hook will miss the cable.

NAVAL OPERATIONS

After being arrested, the hook is disengaged and you can taxi to parking.

AI are also able to land correctly and will go to the parking areas on the deck

AI catching a cable

Parking area

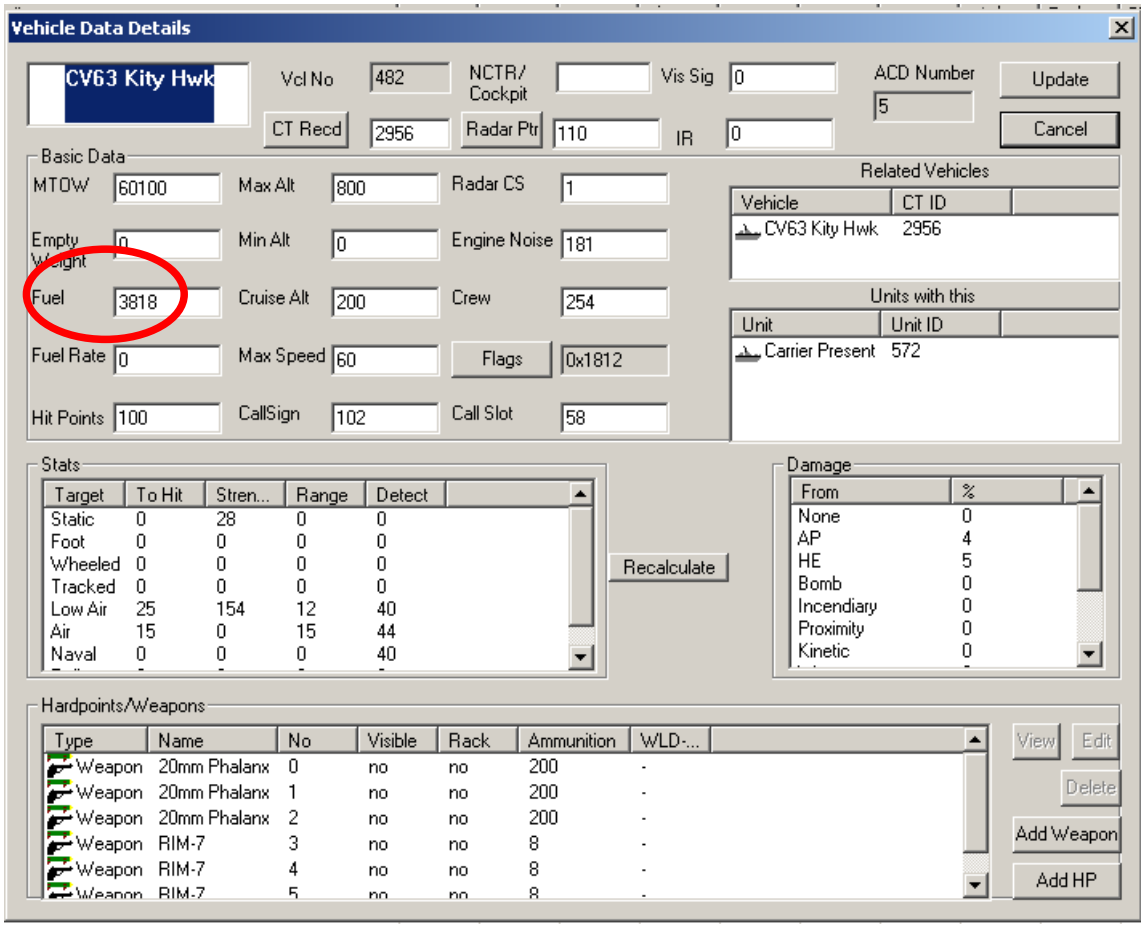
6 Adding carriers to a campaign / theater (dev note)

6.1 Creating objectives associated

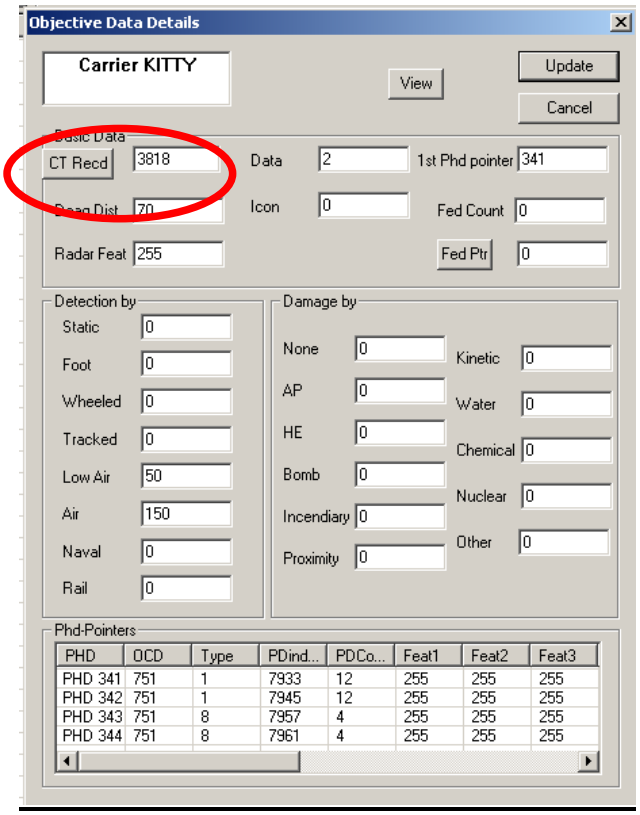
The carriers are associated automatically with their corresponding airbase/objective in the database.

The Fuel Amount in the Vehicle Data Details corresponds to the Objective/Airbase CT dedicated in the database.

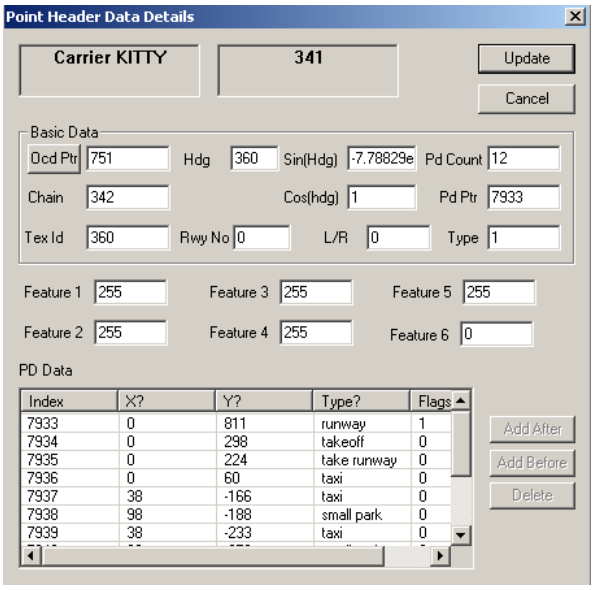
Each carrier shall be linked with a unique Airbase/objective.
The objective / airbase can be treated exactly like an airbase on land.

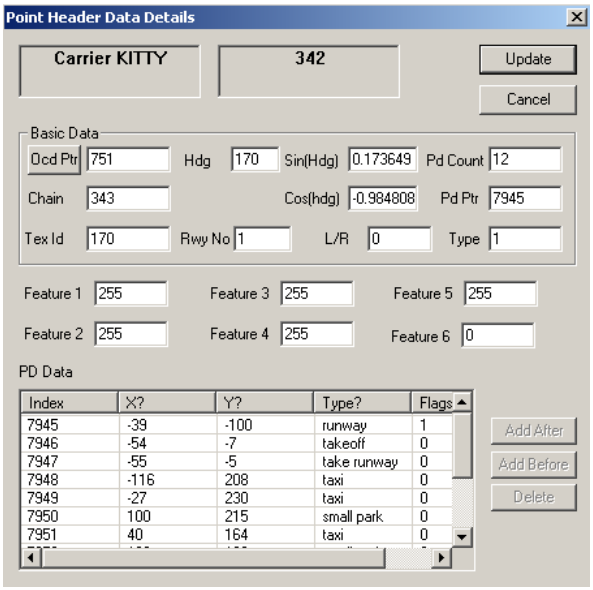


NAVAL OPERATIONS



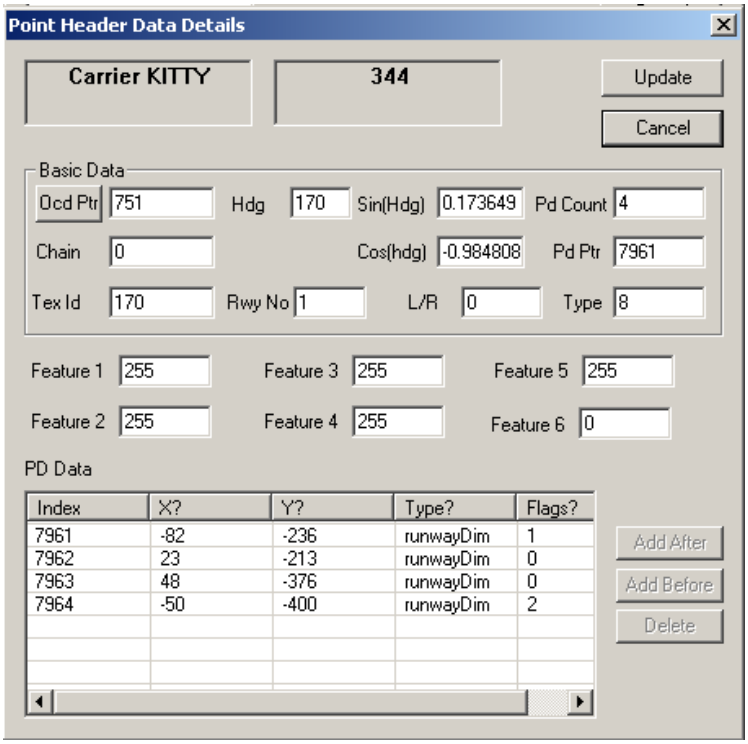
The first PHD in the list, type 1 corresponds to the Take off runway with spawn parking points and take off taxi points.
The second PHD in the list, type2 corresponds to the Landing runway with taxi points and parking points.
Order is mandatory (first is take off, second is landing).





Note that the runway for take off shall be oriented 360 while the runway for landing shall be oriented 170 (or 180 if you want to use a vintage carrier).

NAVAL OPERATIONS



The two following PHD in the list, type 8 corresponds to the definition od the dimensions of the take off area and landing areas.

For the take off area dimensions, you need to place the bottom edge center of your rectangle in between the two catapults. And both side edges of the rectangle shall be at 10ft to 15 ft from each side of the catapults. We recommend you take the existing models as example.

Landing area definition is self explanatory.

We recommend the use of BMS Editor to create or move those PHD / PT. If you really need to change those data, we recommend to create a temporary feature (namely the CT of the carrier in itself) attached to your objective, so in BMS editor you will be able to visualize the PT and Runway dimensions on your carrier.

6.2 Placing objectives in the campaign

For each carrier that you want to use in a campaign of a theater, you need to define the associated objective. (use Tacedit). Use the correct Ocd Id (CT + 100), so in our exemple (3818 + 100). Use correct Id and CampId and **place the objective at X = 0 and Y =0.**

Those objectives will never be displayed on the map but will be automatically associated to the carriers when needed. If you dont create those objectives in the tac_new.tac or campaigns files (save#.cam), the carrier code will not work.

Use default KTO BMS te_new.tac as basic example.

The TACAN and UHF/VHF stations are linked with the CampId number.

e.g.
KITTY HAWK
3693 018 X 32766 100 1 226800 116800 0 0 0 0