INDIA FOXT ECHO
VISUAL SIMULATIONS

FORD-CLASS
AIRCRAFT CARRIERS
for Microsoft Flight Simulator

USER MANUAL

Product Version 1.2.3 – November 2023

CHANGE LOG

1.2.3
08-11-2023

TOMCAT AND SUPERBUG

GENERAL
- Fixed minor glitch in E-2C Hawkeye model
- Changed GUID for USS Ticonderoga, wheelchocks and towbar objects to avoid conflicts with other packages
- Fixed incorrect position light colors in F/A-18F model
- Adjusted glass tint for several aircrafts
- Added F-14A static model
- Added S-3B static model
- Added SH-3 static and flight model
- Added C-2A 4-blade prop model
- Swapped Nimitz and Ford dynamic locations in California

SUPER HORNET
- Added a Super Hornet variant with additional code for full carrier compatibility.
  The variant will appear as an additional livery.

USS Ford-class
- Fixed missing wheelchocks in several locations
- Added new location (C78G close to Israel)

USS Nimitz-class
- Added "vintage" flight deck (with Tomcats, Sea Kings and Vikings) at multiple locations
  "Vintage" flight deck locations:
    - Libya (new location)
    - Hawaii
- Added missing wheelchocks to SF location
- Fixed missing Fire Tractor on USS Eisenhower model

1.2.2
11-10-2023

EISENHOWER UPGRADE

GENERAL
- Improved resolution of deck tractor textures
- Restored Tie-down points geometry on Ticonderoga class ships
- Added wheelchock models and applied to all the ships
- Solved bug preventing tow bars from showing in some locations
- Fixed incorrect naming of USS Enterprise Arabic Gulf location (C80G)

USS Ford Class
- Improved visibility of tiedown points
- More realistic deck rendering
- Fixed minor mistake in placement of deck tiedown points
- Fixed geometry glitch on static CVN79 model

USS Nimitz class
- Added USS Eisenhower
- Fixed orientation of deck details normal map
- More realistic deck rendering
- Fixed bug preventing arrestor wires to show in static models

Support ships
- Improved flight deck rendering of all the ships

1.2.1
10-09-2023

VISUAL UPGRADE
- Added C-2A Greyhound 3D model (available also as library item)
- Added tow-bar model (available also as library item)
- Improved rendering of deck tractors and fire vehicles

FORD CLASS:
- Improved deck and tie-down points details
- Improved island night lighting
- Fixed visual glitch in CVN79 model

NIMITZ CLASS:
- Improved deck rendering and tiedown details
- Improved island night lighting

1.2.0
USS NIMITZ UPDATE
24-05-2023
- Further improvements to deck textures
- Improvements to arrestor cable details
- Fix to JBD animation on moving carriers
- Improvements to deck night lighting
- Improved island night lighting
- Improvements to F/A-18F model
- Improvements to T-45C model
- Rectified CVN-78 Island texture assignment
- Added CVN-68 static model (San Francisco, Hawaii)
- Added CVN-68 dynamic model (Point Mugu, Olympic Peninsula)
- Added CVN-78 dynamic ship location (Key West, Pensacola)
- Added CVN-78 static location (North Sea)
- Swapped CVN-78 with CVN-79 static model in Key West (to avoid Tacan interference)
- Fixed visual anomaly on USS Alreight Burke dynamic model

1.1.2
ILS FIX AND OTHER FIXES
23-05-2023
IMPORTANT! ILS FREQUENCIES CHANGED TO 108.500 FOR ALL CARRIERS
- Fixed bug preventing ILS from working correctly
- Fixed incorrect DME configuration at some locations
- Tweaks to ILS alignment at some locations
- Tweaks to deck material rendering
- Fixed minor glitch in Arabian Gulf scenery

1.1.1
MINOR FIX
1-05-2023
- Fixed minor misalignment issues for some deck crew figures

1.1.0
MAJOR REFACTORING
24-04-2023

- Static ships converted to airports, with tower and approach frequencies, ILS and TACANs: flight can be started from the deck now.
- Added dynamic ship locations (off the coast of Miramar MCAS, California and Oceana NAS, Virginia)
- Dynamic ships are landable with Asono F/A-18 and other aircrafts too
- Improved ship model with better deck details (tie-down points, surface rendering), catapult and arresting wires details (courtesy of Heatblur Simulations)
- Replaced custom deck crew figures with Asobo deck crew figures (requires Top Gun add-on)

- Added E-2C Hawkeye model
- Added Ticonderoga, Zumwalt and Alreigh Burke models, with landable heilpads

1.0.1
Minor update:
- reworked deck materials and textures following feedback from early adopters

1.0.0
INITIAL RELEASE
23-Jan-2022

WELCOME

This package contains static, landable objects for the Ford class ships and is primarily meant as companion of IndiaFoxtEcho F-35C and T-45C aircrafts for carrier recovery and launch operation.
Static carriers are configured as airports and have custom start locations, parking spot (for cold and start landing), ILS and TACAN. Escort ship models with landable decks are also included.
Static ships can be used either with IndiaFoxtEcho carrier-capable aircrafts or with helicopters or tilt-rotor aircrafts.

In addition, escort ships (USS Ticonderoga-class, USS Alreigh Burke class and USS Zumwalt-class) and moving carrier models are also included – these can be used with other aircrafts with SDK-compliant tailhooks.

Also, starting from version 1.2.0, a **detailed USS Nimitz model is also included** (with static and dynamic variants)

The Gerald R. Ford class is a class of nuclear powered aircraft carriers currently being constructed for the United States Navy.
The class, with a planned total of ten ships, will replace the Navy's current carriers on a one-for-one basis, starting with the lead ship, Gerald R. Ford replacing Enterprise (CVN-65), and then eventually taking the place of the existing Nimitz-class carriers.
The new vessels have a hull similar to the Nimitz class, but introduce technologies since developed with the CVN(X)/CVN-21 program, such as the Electromagnetic Aircraft Launch System (EMALS), as well as other design features intended to improve efficiency and reduce operating costs, including sailing with smaller crews.
This class of aircraft carriers is named after former US President Gerald R. Ford.
Carriers of the Gerald R. Ford class have:

- Advanced arresting gear.

- Automation, allowing a crew of several hundred fewer than the Nimitz-class carrier.

- The updated RIM-162 Evolved Sea Sparrow missile.

- An AN/SPY-3 X Band multifunction radar and an AN/SPY-4 S Band volume search radar.

- An Electromagnetic Aircraft Launch System (EMALS) in place of traditional steam catapults for launching aircraft.

- A new nuclear reactor design (the A1B reactor) for greater power generation.

- Stealth features to reduce radar cross-section.

- The ability to carry up to 90 aircraft, including the Boeing F/A-18E/F Super Hornet, Boeing EA-18G Growler, Grumman C-2 Greyhound, Northrop Grumman E-2 Hawkeye, Lockheed Martin F-35C Lightning II, Sikorsky SH-60 Seahawk helicopters, and unmanned combat aerial vehicles.

The biggest visible difference from earlier supercarriers is the more aft location of the island (superstructure).
The Gerald R. Ford-class carriers will have a reduced whole-life cost due in part to reduced crew size.
These ships are intended to sustain 160 sorties per day for 30-plus days, with a surge capability of 270 sorties per day.

IMPORTANT!

- This package contains static landable objects: AIRCRAFT LAUNCH AND RECOVERY FUNCTIONS MUST BE IMPLEMENTED AT AIRCRAFT LEVEL.
CARRIER IS COMPATIBLE WITH INDIAFOXTECHO T-45C GOSHAWK, F-14 TOMCAT, A-4/TA-4 SKYHAWKS, F-35C LIGHTNING II AND THE INCLUDED MODIFIED SUPER-HORNET

- Crash must be disabled to avoid potential collision detection issues. Landmarks point are provided, but there are no Navaids associated.

- Due to the high detail, there may be a slight stuttering once the ship loads (approximately 10km from the ship).

- Dynamic models are also provided. Arrested landing can be performed on those ships with any aircraft compatible with SDK tailhook.

HOW TO OPERATE FROM THE CARRIERS

Since, at the moment, Microsoft Flight Simulator does not include support for carrier catapults, to launch from a carrier, additional functionality is needed. Our carriers assume tha the aircraft will have its own launch and recovery logic.

In particular, this applies to the following products by IndiaFoxtEcho:

- F-35 LIGHTNING II (only C-variant)

- T-45C GOSHAWK

- F-14A/B TOMCAT*

- A-4 and TA-4 SKYHAWK*

(*) these products have not been released yet

Also, we have added to this package a variant or the Super Hornet which includes IndiaFoxtEcho carrier functionalities.

To LAUNCH from the carrier with the products above:

- Taxi the aircraft to the launch position

- Set throttle to minimum

- Set brakes (parking or toe brakes) and keep them engaged

- Increase throttle

- Release brakes → this will activate the launch code

NOTE: Jet Blast Deflectors will rise only on dynamic carriers

To LAND on the carrier follow the aircraft specific instructions.

NOTE: if the aircraft is NOT equipped with arresting code, but has an SDK compatible tailhook, it will perform an arrested landing ONLY on dynamic carriers.

NOTE: static carriers can be used as airports and you can start your flight from the deck – if you select the parking spot from the MSFS map, the plane will spawn "cold and dark"

NOTE: all static support ships have landable helipads – these can be used to start a flight ONLY WITH HELICOPTERS.

MODIFIED SUPER-HORNET

Starting from version 1.2.3. the package also includes a modified F/A-18 Super Hornet which includes IndiaFoxtEcho carrier-functionality code.

This version of the Super Hornet will appear as a LIVERY of the default Super Hornet and will be able to operate from the staic carriers.

> **Boeing**
> Modified for IndiaFoxtEcho Carriers

⏱ Cruise Speed		451 KTAS
⋏ Max Altitude		45,000 Ft
⏱ Endurance		5 Hr
⋯ Range		2,165 NM

STATIC SHIPS locations and Navaids

USS Nimitz CVN-68

- Near San Francisco, California, USA
- Near Honolulu, Hawaii, USA – F-14 VINTAGE DECK
- Mediterranean sea (near Lybia) – F-14 VINTAGE DECK

ILS: 109.500 MHz
Tower: 129.00 MHz
Approach: 129.500 MHz
TACAN: 88X (coupled VOR frequency 114.10 MHz)

USS Eisenhower CVN-69

- Arabic Gulf
- Mediterranean Sea

ILS: 109.500 MHz
Tower: 129.00 MHz
Approach: 129.500 MHz
TACAN: 89X (coupled VOR frequency 114.20 MHz)

USS Gerald R. Ford CVN-78

- Near Kingsville, Texas, USA (T-45C Goshawk Carrier Qualification Configuration)
- Near Los Angeles, California, USA
- Near Honolulu, Hawaii, USA
- Mediterranean Sea, near Israel
- North Sea

ILS: 108.500 MHz
Tower: 128.00 MHz
Approach: 128.500 MHz
TACAN: 78X (coupled VOR frequency 113.10 MHz)

USS John F. Kennedy CVN-79

- Off the coast of the Olympic Peninsula, Washington, US
- Near Okinawa, Japan
- Near Norfolk, Virginia, US
- Adriatic Sea
- Near NAS Key West, Florida, US

ILS: 108.500 MHz
Tower: 129.00 MHz
Approach: 129.500 MHz
TACAN: 79X (coupled VOR frequency 113.20 MHz)

USS Enterprise CVN-80

- Near Sigonella NAS, Italy
- Arabic Gulf, near Bahrein

ILS: 108.500 MHz
Tower: 130.00 MHz
Approach: 130.500 MHz
TACAN: 80X (coupled VOR frequency 113.30 MHz)

DYNAMIC SHIPS locations:

- **Off the coast in front of Miramar MCAS, California, USA (USS Nimitz)**

- **Off the coast in front of Oceana NAS, Virginia, USA**

- **South of Key West NAS, Florida, USA**

- **Off the coast of Pensacola, Florida, USA**

- **Off the coast in front of Point Mugu NAS, California, USA (USS Ford)**

- **Nearby the Olympic Peninsula, Washington, USA (USS Nimitz)**

- **Off the coast in front of Kitty Hawk, USA (USS Eisenhower)**

MINIMUM HARDWARE REQUIREMENTS

Due to the high-detail model and textures, we suggest to use these carriers on systems that meet or exceed the following requirements:

CPU: 3.5GHz quad core processor or better

GPU: at least 6Gb dedicated memory, Nvidia 1060 or better recommended

RAM: 8.0Gb minimum

Hard Disk: 1.5Gb required for installation

INSTALLATION

IMPORTANT – IF YOU ARE MANUALLY UPGRADING YOUR PACKAGE FROM A PREVIOUS VERSION, PLEASE DELETE THE PREVIOUS VERSION FIRST!

This package is distributed both on the Microsoft Marketplace, Orbx and other vendors.

If you have purchased the package though the Marketplace or through Orbx Central and you have followed the on-screen instructions, no further action is required from your end. The scenery should be available in the aircraft selection menu as the other default planes and should be automatically updated.

If you have purchased the package from an external vendor and the scenery is provided as a .zip file without any installer, just unzip the content of the file into your COMMUNITY folder. The exact location of the folder will depend on your selection when you have installed Microsoft Flight Simulator. Once you have indicated where your COMMUNITY folder is, just follow the on-screen instructions.

If you have purchased the package from an external vendor and the product comes with an .exe installer, just follow the instructions on the screen. You will be asked to locate the COMMUNITY folder. The exact location of the folder will depend on your selection when you have installed Microsoft Flight Simulator. Once you have indicated where your COMMUNITY folder is, just follow the on-screen instructions.

NOTE: If you do not know where the community folder is located, you can follow this procedure:

Go to Options / General.

1.Click on "Developers" which you will find at the bottom of the list on the left.
2.Switch Developers Mode on.
3.On the Dev Menu select Tools / Virtual File System.
4.**The community folder location can be found under "Watched Bases"**

NOTE: If the copying the folder in the Community folder fails because of the fact that files names are too long you can proceed as follows:

1. Extract the package folder on your desktop or in any known and easily acceptable location.

2. Rename the package folder to anything short and recognizeable such as "lha6" or just "l6"

3. Place the renamed package folder in the Community folder

Alternatively for EXPERT WINDOWS USERS ONLY, it is possible to edit the "LongPathsEnabled" entry in the Windows registry key:

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\FileSystem

CREDITS

Dino Cattaneo …...   Development lead, additional 3D modeling,texturing, coding, project management.

Alessandro Schimicci..   Additional 3D modeling.

The aircraft external models are partially based on 3D meshes by 3d Molier and other vendors. , licensed through TurboSquid

Part of the text description taken from wikipedia.

We'd like to thank the Beta testing Team and everyone who supported this project and IndiaFoxtEcho.

For questions, support and contact please write an email to indiafoxtecho@gmail.com or contact us on Facebook https://www.facebook.com/Indiafoxtecho-594476197232512/

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UPDATES

We will try our best to keep the product updated and squash significant bugs as soon as possible. Updates are typically deployed as new installers/packages and will be available from your distributor. Updates must be manually installed unless the product is purchases through the Microsoft Marketplace or Orbx Central.

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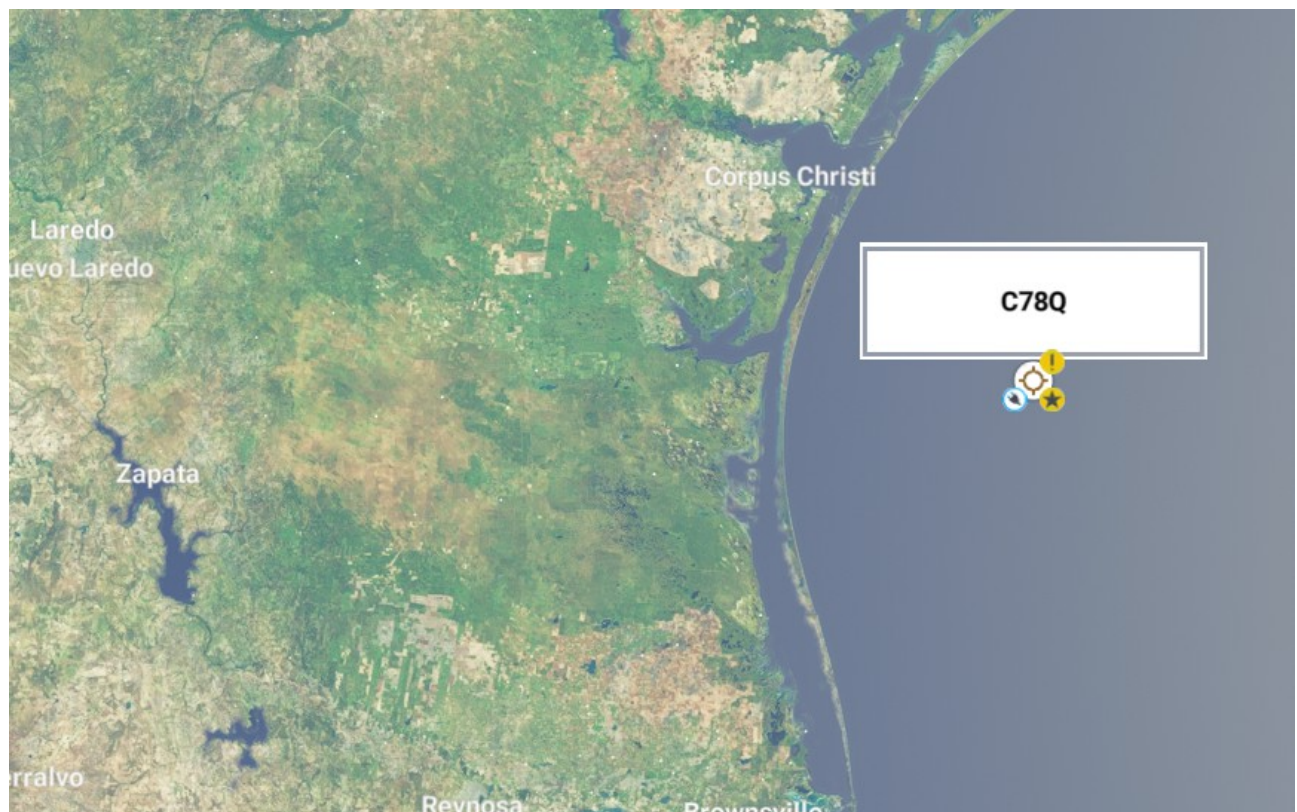
SHIP LOCATIONS (note, all static ships have an associated ICAO airport code):
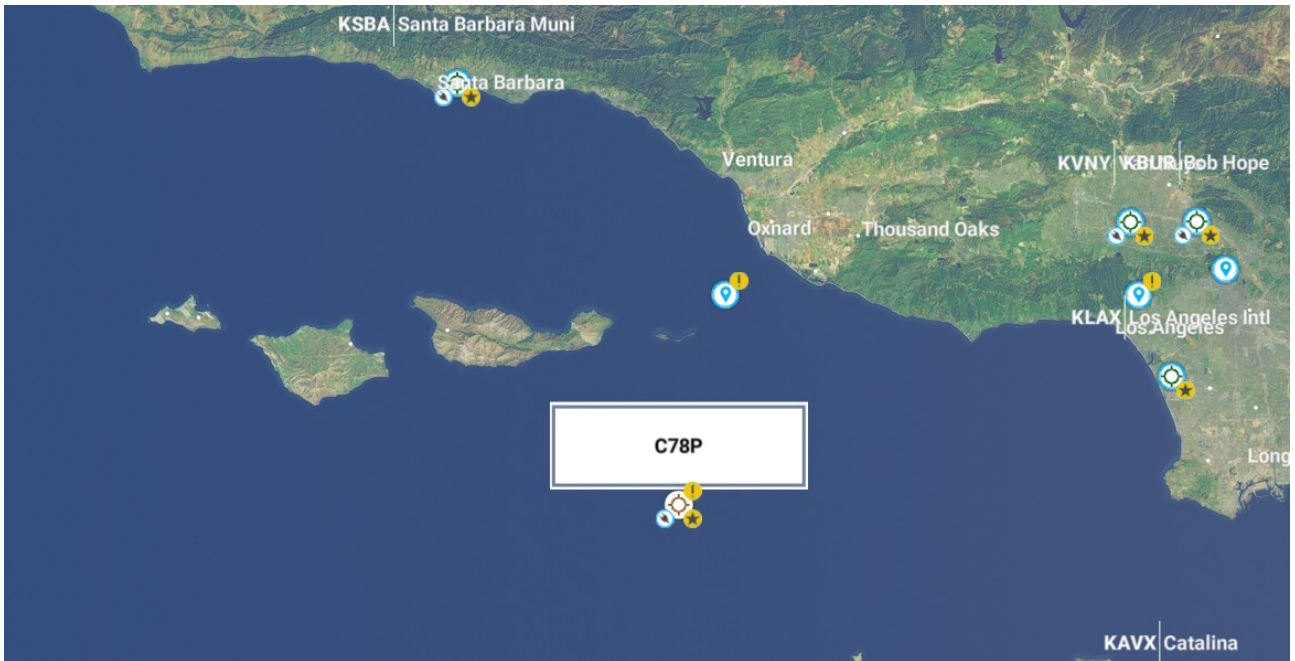
USS Gerald R. Ford CVN-78

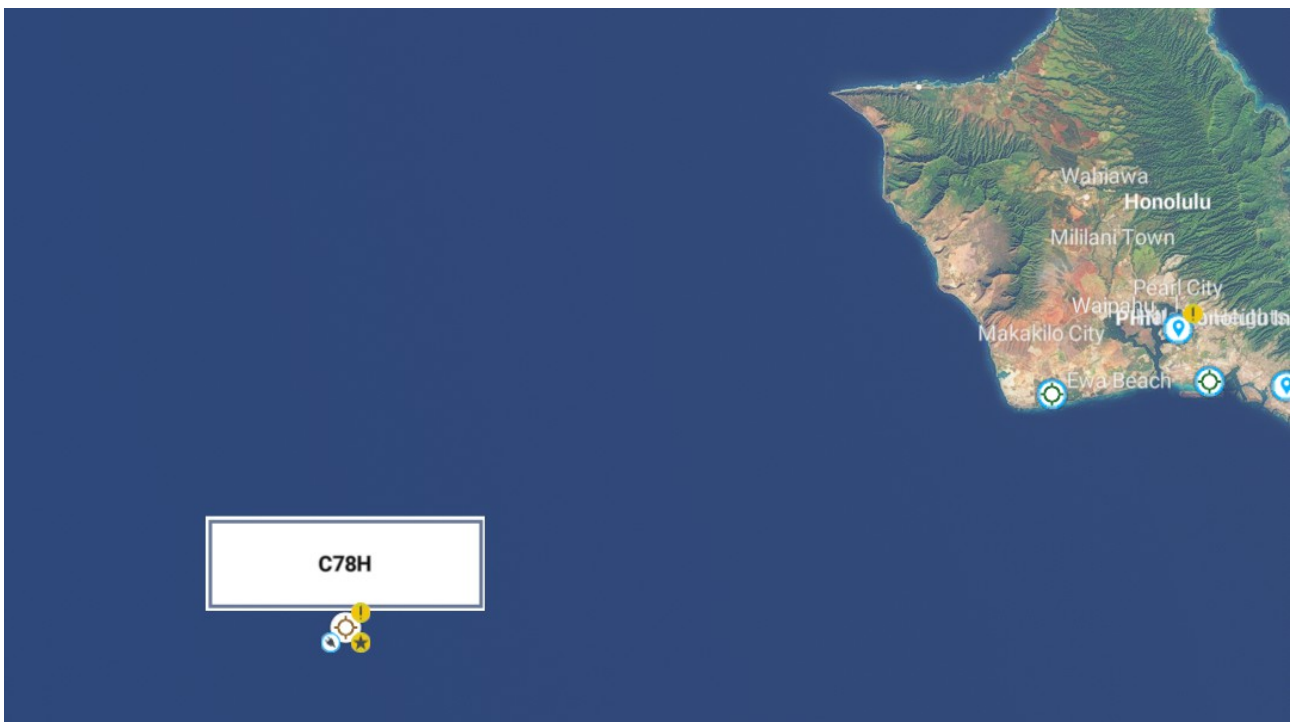- North Sea (between Norway and Denmark) – ICAO C78O

- Near Kingsville, Texas, US (T-45C Goshawk Carrier Qualification Configuration) – ICAO C78Q

- Near Los Angeles, California, US- ICAO C78P
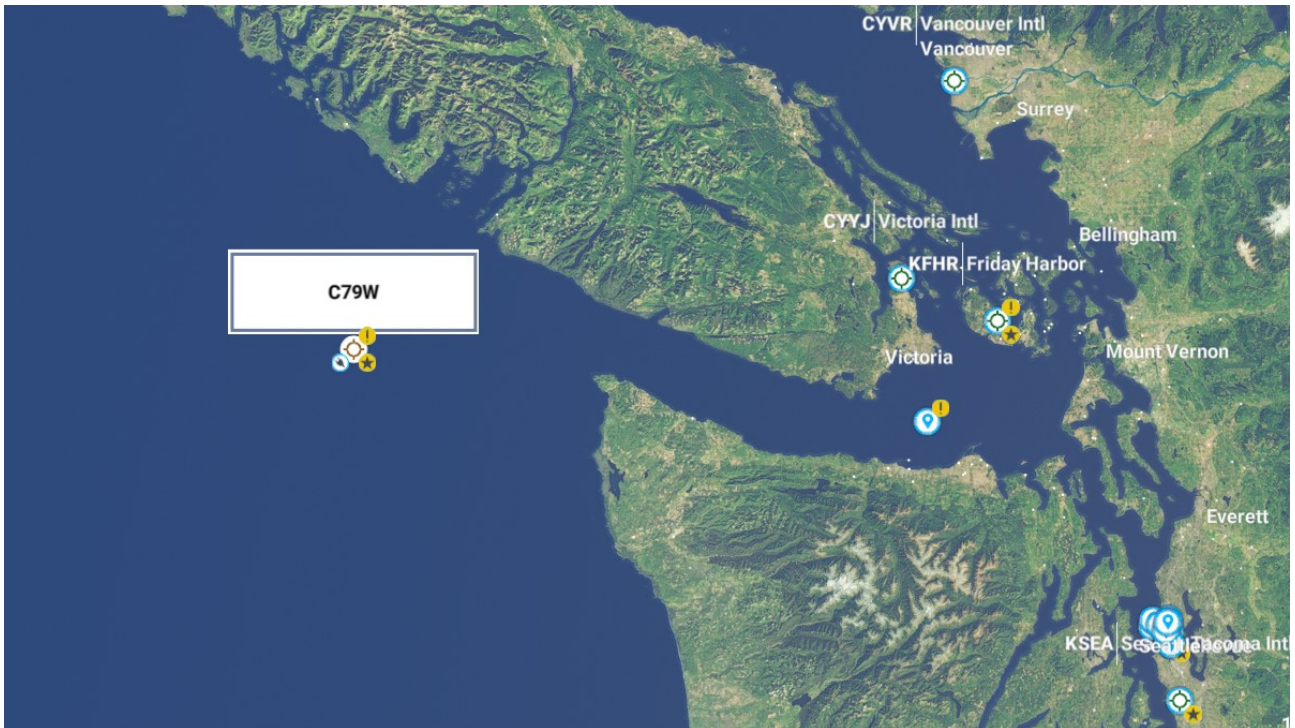

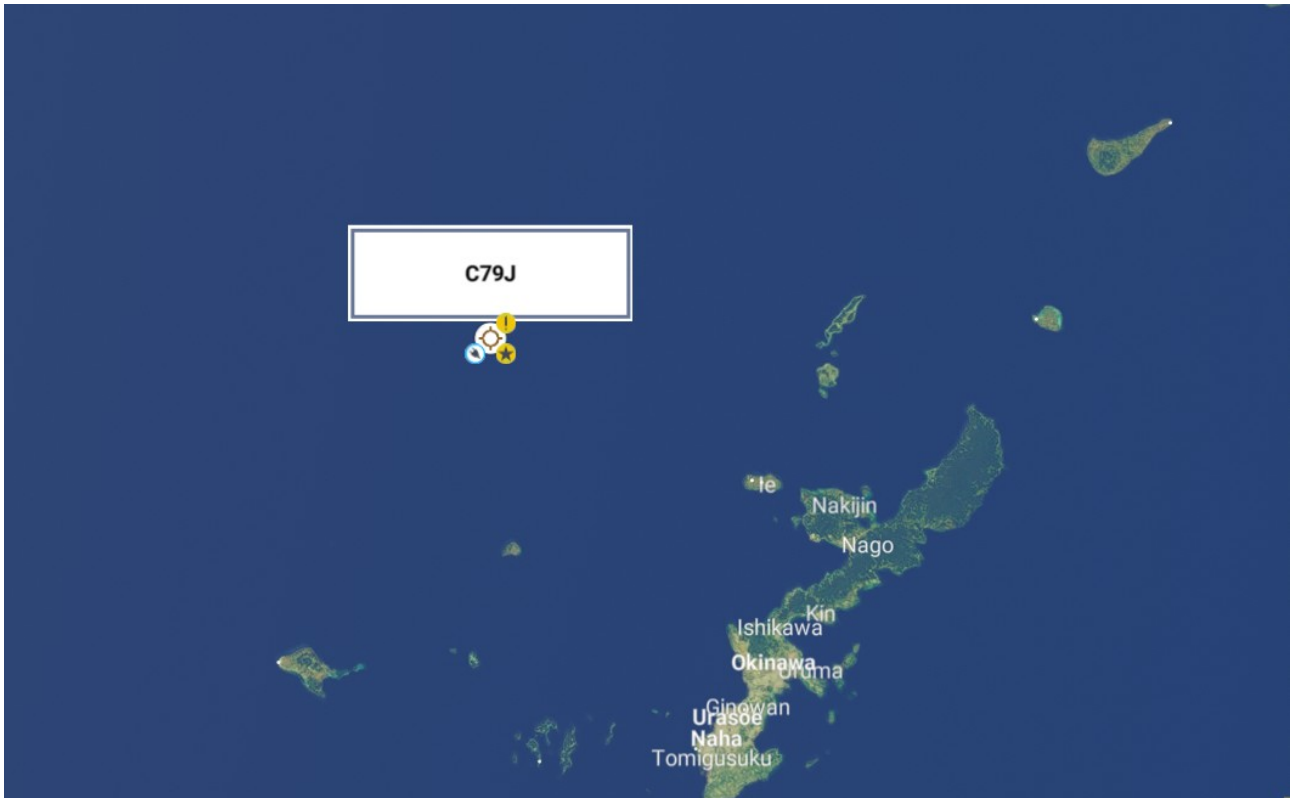- Near Honolulu, Hawaii, US – ICAO C78H

- North Sea
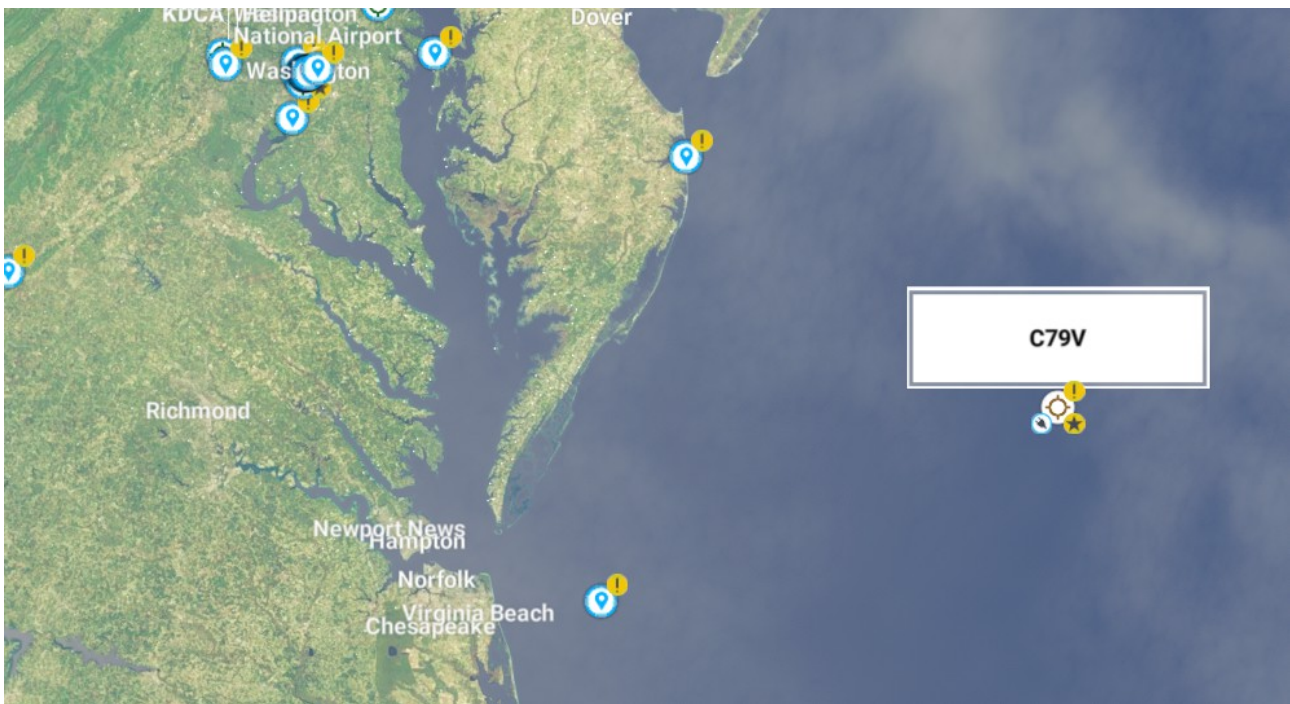

- Mediterranean Sea

USS John F. Kennedy CVN-79
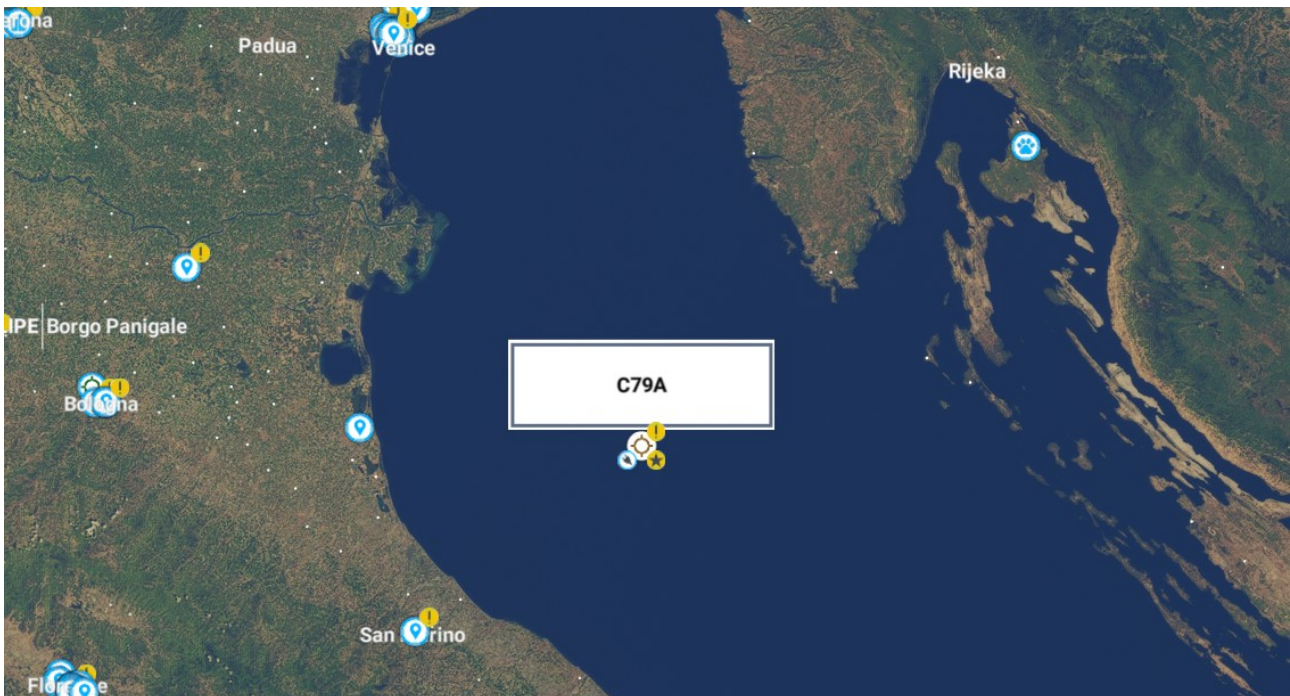
- Off the coast of the Olympic Peninsula, Washington, US – ICAO C79W

- Near Okinawa, Japan – ICAO C79J

- Near Norfolk, Virginia, US – ICAO C79V

- Adriatic Sea – ICAO C79A

- North of Key West, Florida, US- ICAO C79K
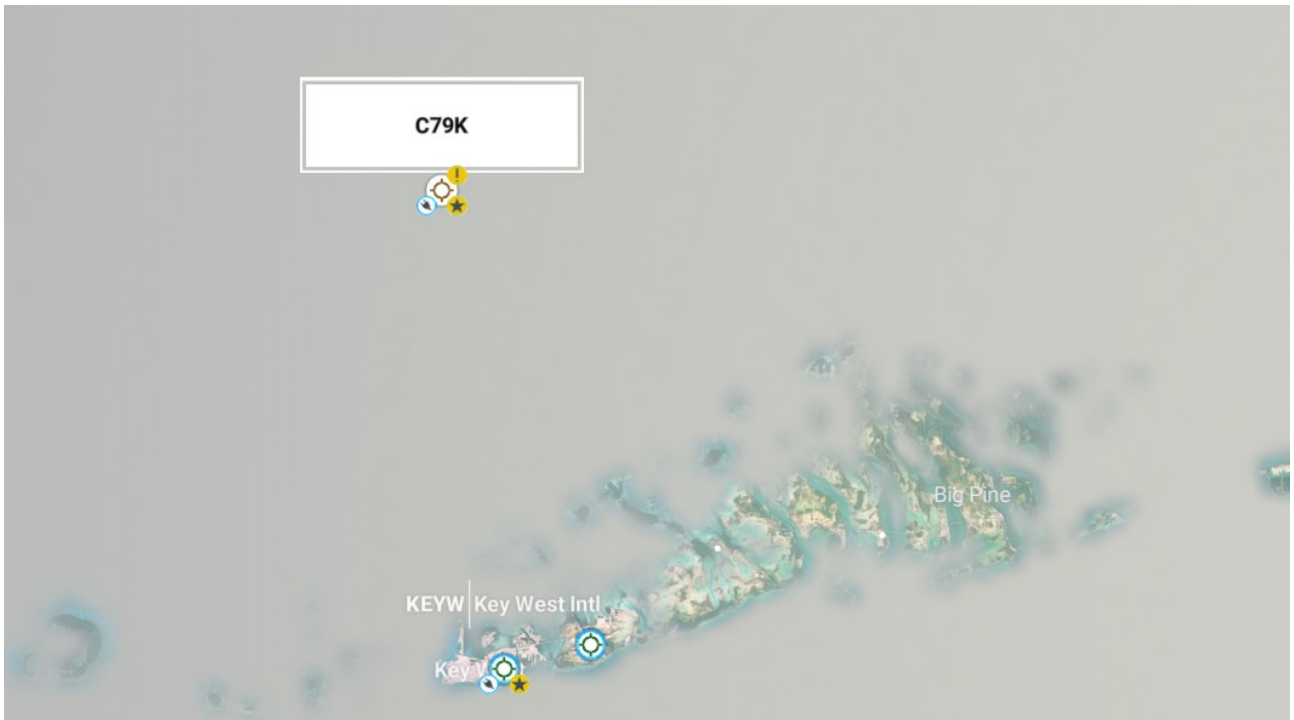
USS Enterprise CVN-80

- Near Sigonella NAS, Italy – ICAO C80S

- Arabic Gulf, near Bahrein – ICAO C78G
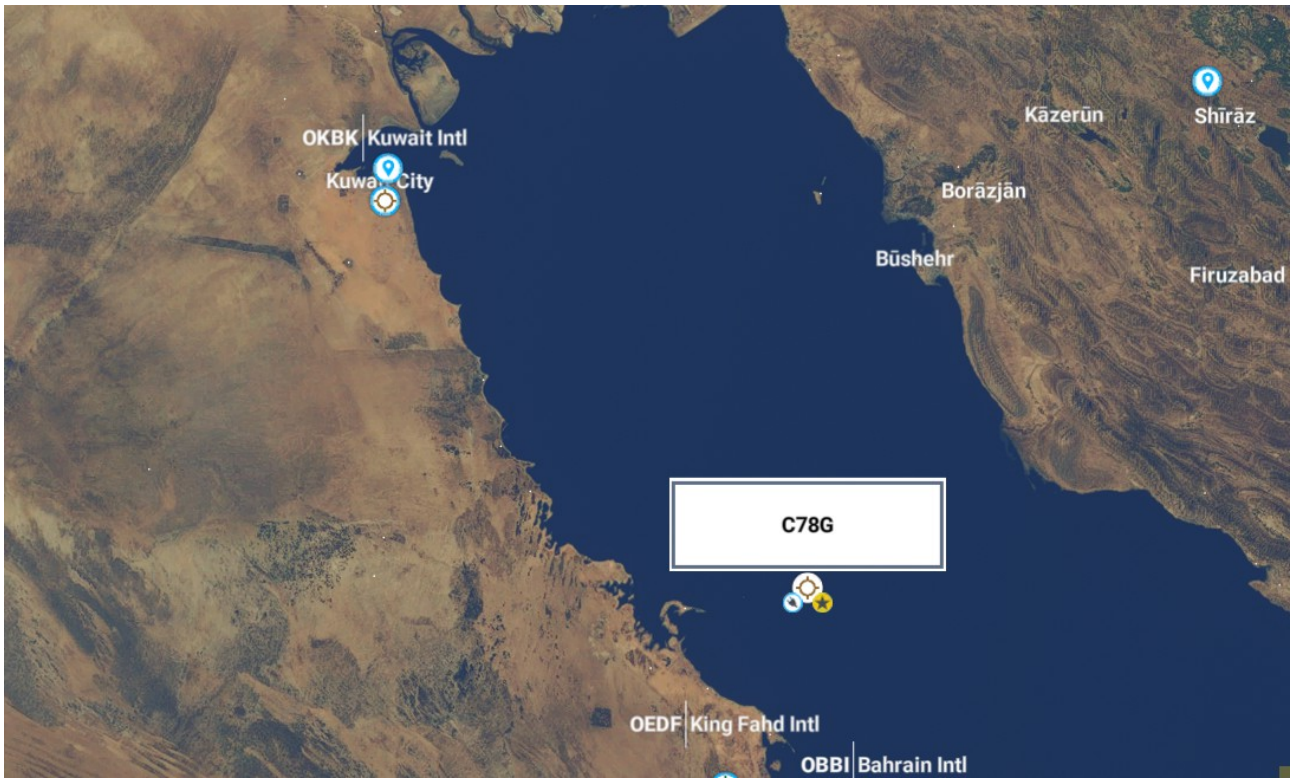
USS NIMITZ CVN-68

- Near San Francisco, California, US
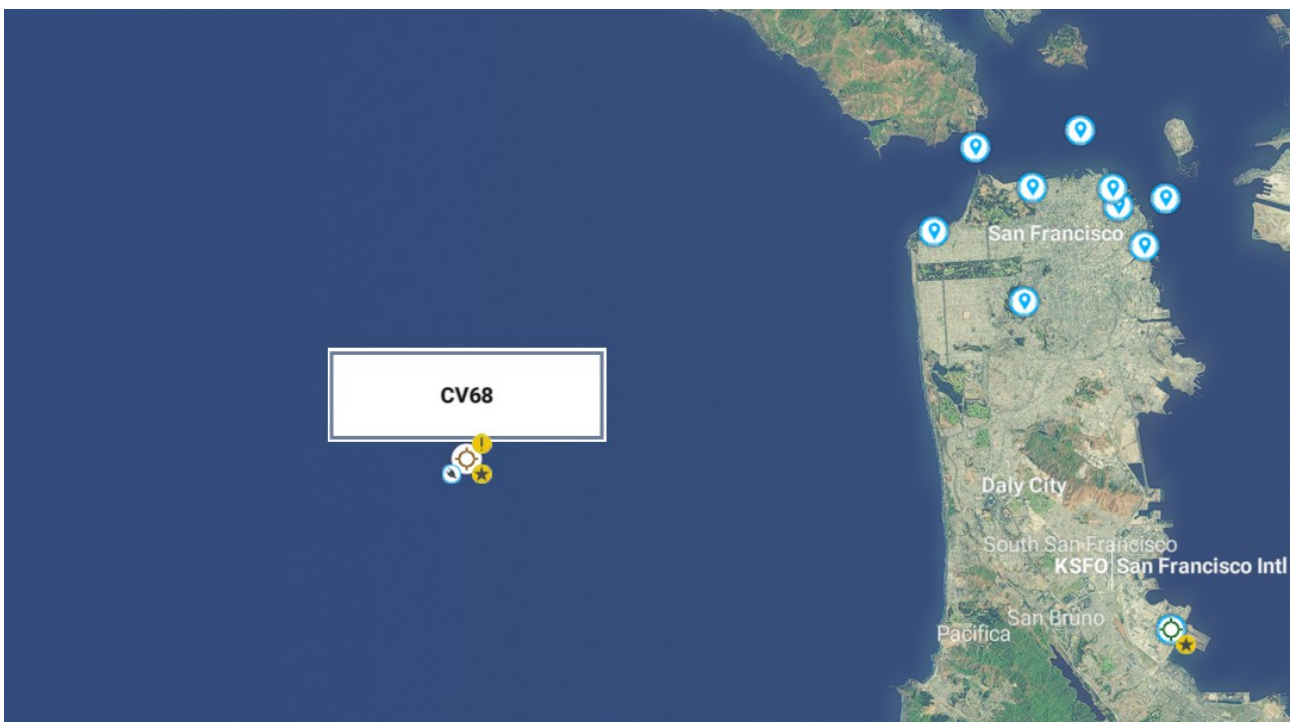
- Near Honolulu, Hawaii, US (vintage F-14 deck)
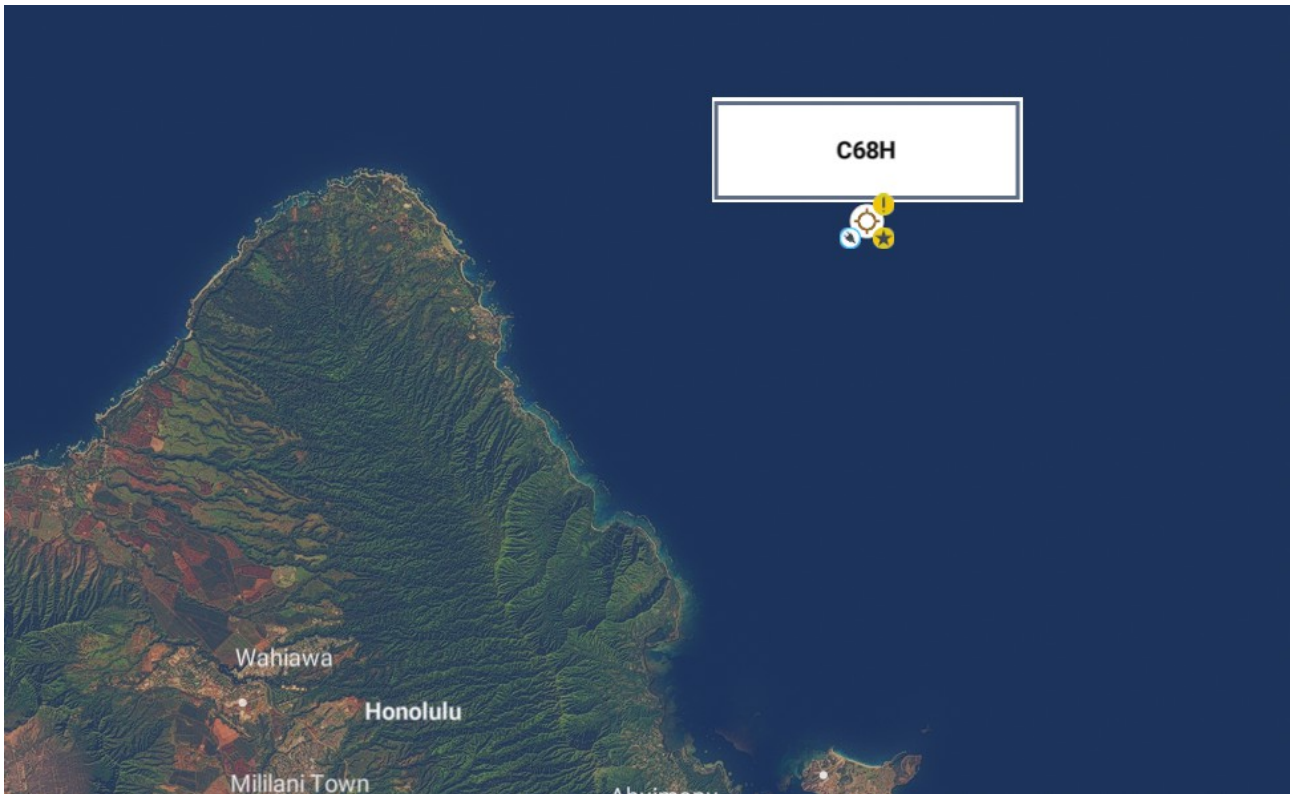
- Mediterranean Sea (vintage F-14 deck)
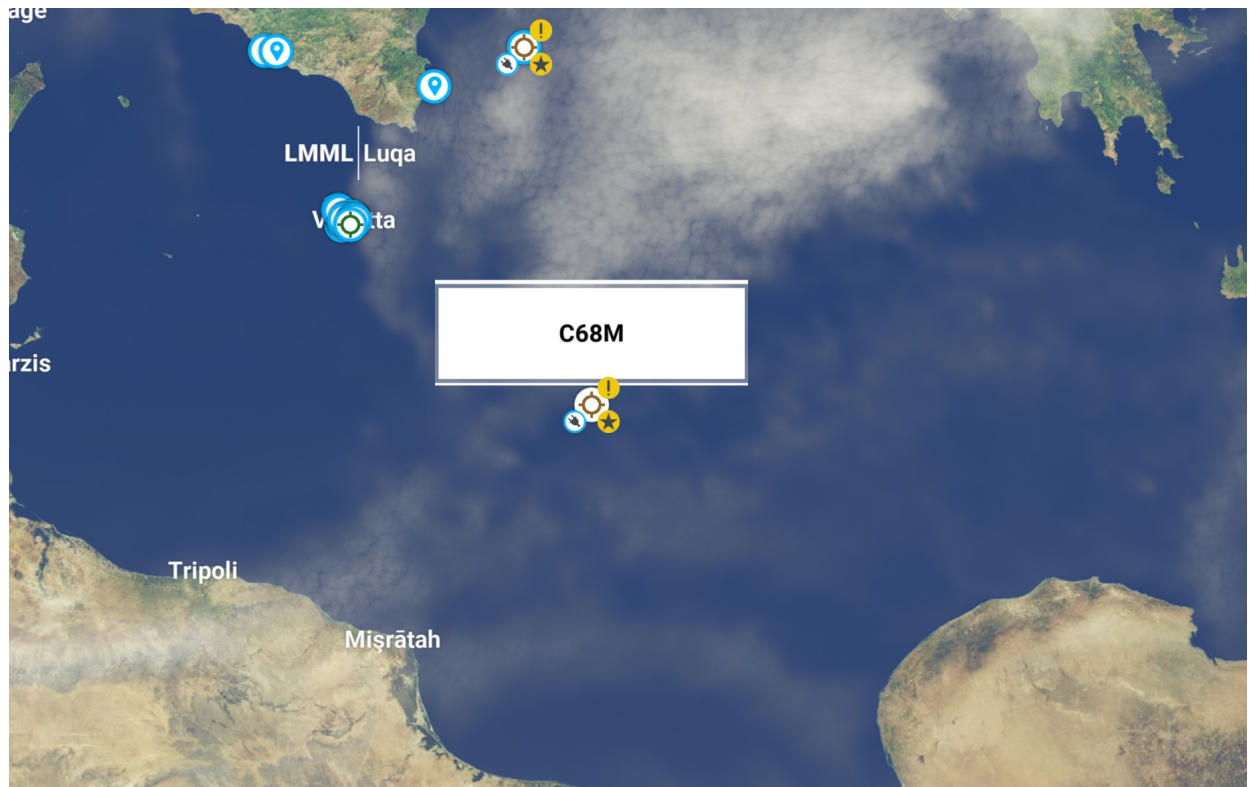
USS EISENHOWER CVN-69

- Arabic Gulf

- Mediterranean Sea

DYNAMIC CARRIERS LOCATIONS

NOTE: Moving carriers move on a fixed direction for approximately 20 kilometers before inverting their direction. The POI indicate the starting location.
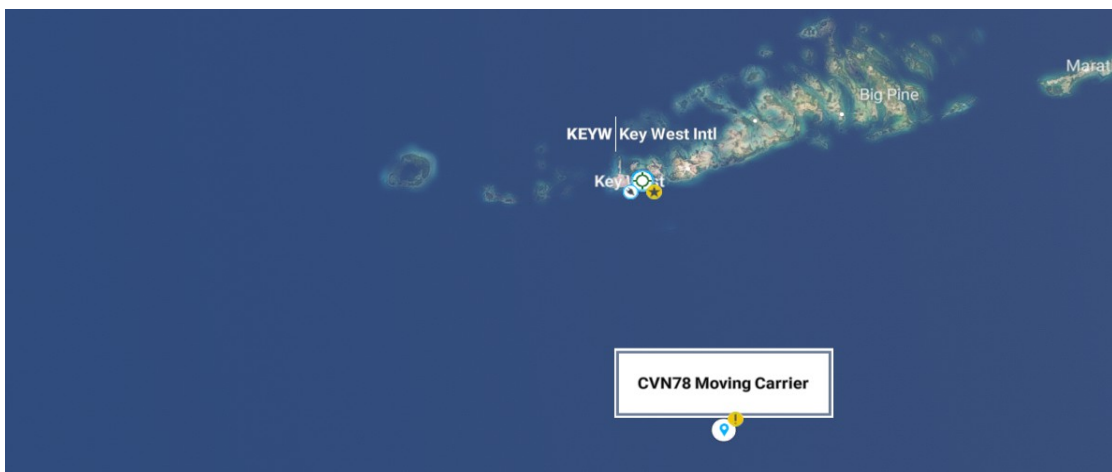
CVN-78 Near San Diego – suggested starting airport Miramar MCAS (KNKX)
Initial ship direction: North

CVN-78 Near Pensacola NAS – suggested starting airport Pensacola NAS (KNPA)
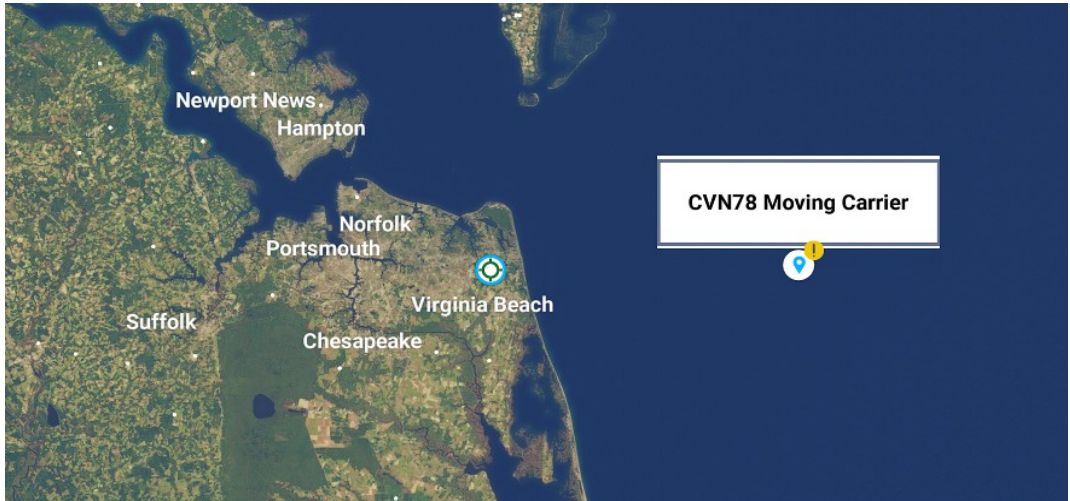Initial ship direction: West

CVN-78 Near Key West – suggested starting airport Key West NAS (KNQX)
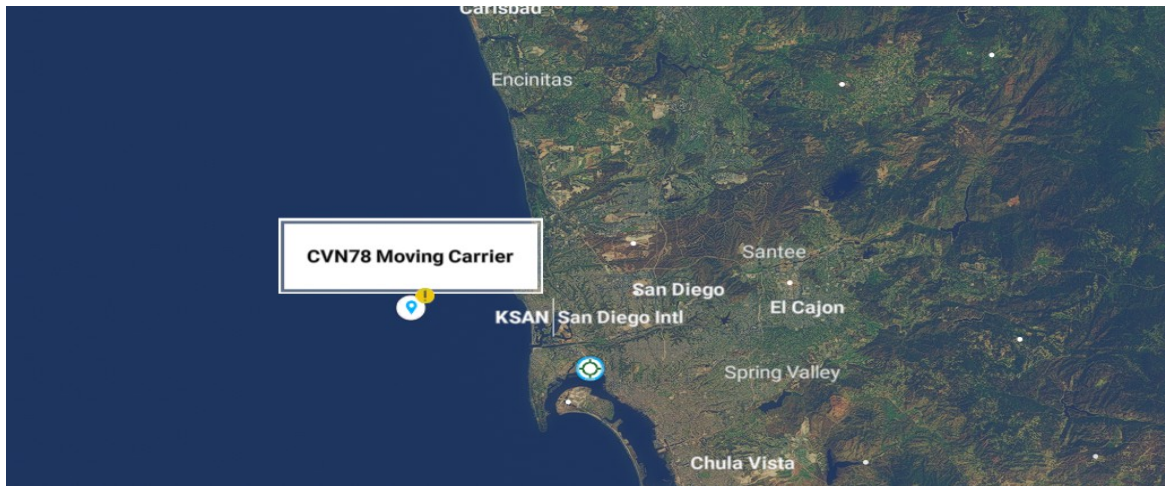Initial ship direction: North

CVN-78 Near Norfolk – suggested starting airport Oceana NAS (KNTU)
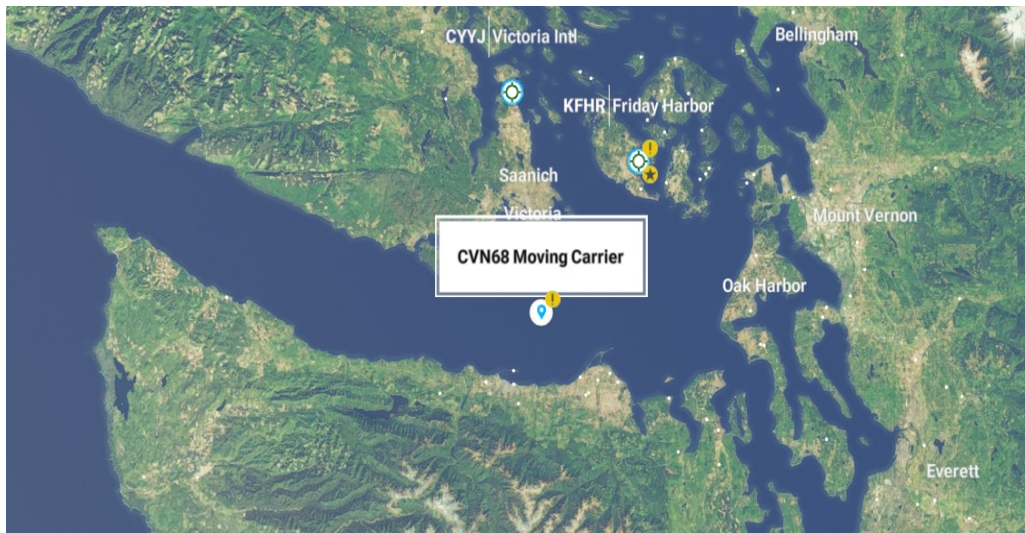Initial ship direction: North

CVN-68 Near Point Mugu – suggested starting airport Key West NAS (KNQX)
Initial ship direction: North

CVN-68 Near Olympic Peninsula – suggested starting airport Whidbey Island NAS (KNUW)
Initial ship direction: West

CVN-69 Near Kitty Hawk – suggested starting airport Oceana NAS (KNTU)
Initial ship direction: North