



LHA-5

AJ WEBER'S
FSX NAVAL SERIES

FSADDON
PUBLISHING

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Copyright stuff

Let's get the 'small print' over with first. We know that anything in this big bad world can be reproduced within minutes, no matter the copy protection, no matter what we write or how much we threaten, so the following text is just meant for decent people to read. The ones we know that will take it to heart. The ones that have just PURCHASED this product. In other words: YOU! (And, by the way, thank you for that!!).

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Warning: This product should NOT be used for real world training or other real world usage of any kind!

After purchasing this product, **LHA-5 by AJ Weber**, you may install and use it on ONE computer only for your private use. And you know what? If you really want to make a backup copy for safety reasons only and promise NOT to use it for anything else (like giving it to your best friend), we don't even blame you!

Included software is copyright of **AJ Weber**.

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Now let's get down to business.....

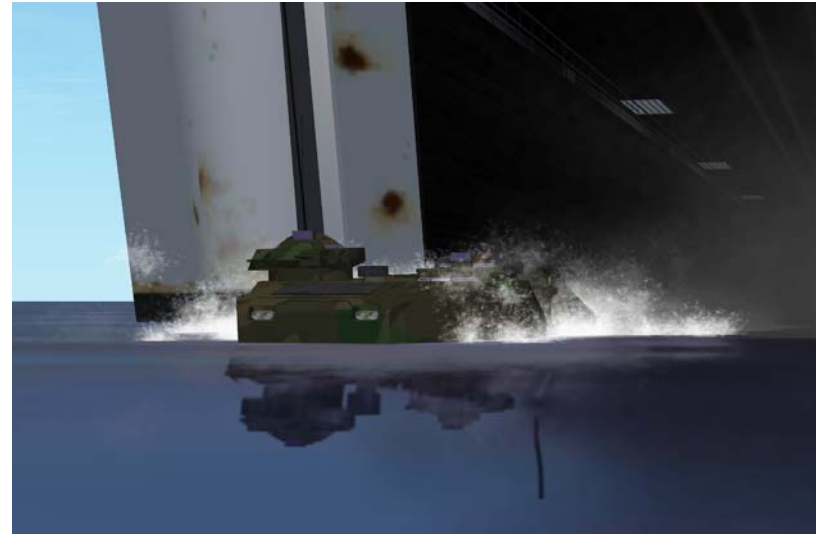
Installation

Installation is relatively easy. Actually, chances are that when you read this, you've already DONE IT!

Just to re-iterate what happens:

You start the 'installer'

- It will find your FSX installation (unless you have changed something, then you will need to point the installer to the PATH where you have installed FSX)
- The installer will make (or find an existing) FSAddon folder within your FSX folder and move the necessary files into it
- Inside that FSAddon folder you will also find this manual.
- It will install the scenery for the 5 LHA ships and it will also install the model of the AAV-7 into your SimObjects folder (and show up in your aircraft list !).



Uninstalling

We can't imagine you would want to uninstall what you just bought, but just in case you need to, here is how:

- Click on Start (bottom left of your windows screen)
- Click on Programs
- Find the FSAddon product title (you may have more)
- Find the appropriate 'Uninstall' and click on it

That's it.

Support

We don't envisage you will need much support as this is a fairly simple product with an automated install.

But since SUPPORT is one of our famous hallmarks we are here for you of course!!

You can freely READ our Support Forums and find information there.

In case you have QUESTIONS you will NEED to REGISTER to our SUPPORT FORUMS, which is THE ONLY PLACE we provide support for FSAddon Publishing products !!

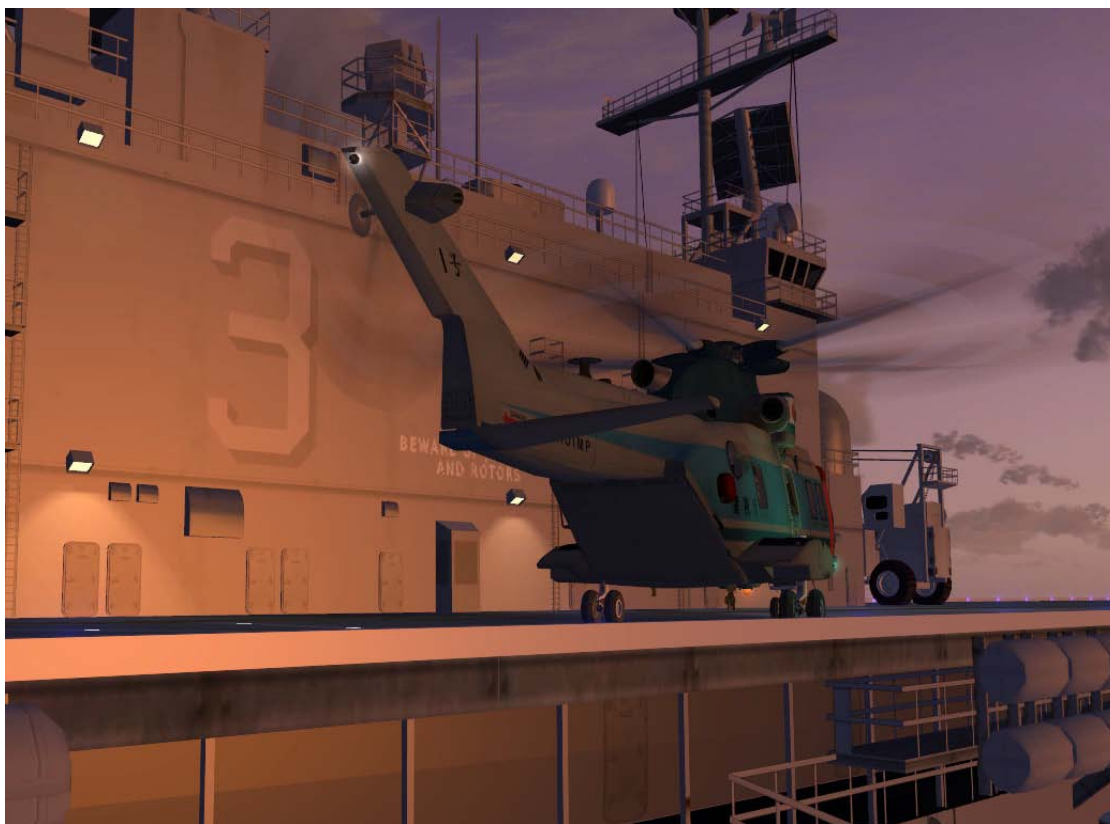
You can find the forum here: <http://forums.fsaddon.eu/viewforum.php?f=37>
(For reasons of security you will have to register in order to post messages there).



What did you just buy?

Five Helicopter Carriers

You have bought not one but **five Helicopter carriers** of the Tarawa class, belonging to the US Navy.



anything.

These ships, LHA-1 to LHA-5, have been meticulously modeled for FSX by our new author A.J. Weber, also known as 'AJ'.

The ship is a wonderful rendition of its class, and a great place to practice your helicopter landings, both by day AND by night. There is not a whole lot of space on the small deck! The ship has working radars, deck lighting for the helicopter operations, and an opening well deck door to allow access to the landing craft dock inside!

The deck landing lights and well deck doors are animated, and are basically triggered by the user aircraft in some way. The deck landing lights are activated when the aircraft comes to within approximately 40ft of either the port or starboard of the ship. The well deck doors will open when the user aircraft NAV2 radio is set to 108.00, and will close if any other frequency is chosen. All other animations such as radars are ongoing and not triggered by

LHA (helicopter carrier for FSX) by AJ Weber

Today it is a 'static' scenery model, meaning it does not move.

You can find the five ships either by selecting them from the airport list (search for **ICAO code LHA1 to LHA5**), or by using one of the 'flights' included in the FSX/Flights/LHA folder.

We will be adding new things to this product though... expect to see the LHA's as AI models in future, and be joined by other ships as well!

You can **find your ships here**: (Ship name, home port, location in FSX, ICAO code)

Name	Home port	FSX location	'ICAO' code
USS TARAWA	San Diego, CA	Oceanside, CA	LHA1
USS SAIPAN	Norfolk, VA	Coast of Kuwait	LHA2
USS BELEAU WOOD	Saesbo, Japan	Okinawa, Japan	LHA3
USS NASSAU	Norfolk, VA	Beirut, Lebanon	LHA4
USS PELELIU	San Diego, CA	Kaneohe, Hawaii	LHA5



An amphibious tracked vehicle

But that's not all.... AJ also has included a working model of the **AAV-7**, the current amphibious tracked vehicle used by the US Marines for beaching operations.

Now, please bear with us.... FS was NOT made to model anything but fixed wing aircraft really. It even has problems with helicopters, let alone ships and vehicles.

Having said that, AJ has done a wonderful job in building this tank, with real moving tracks, opening door and hatch, even a firing canon with visible effects and bulging black diesel smoke coming from the exhaust when opening up the throttle (thanks to the kind and much appreciated help of Rob Barendrecht).

We have had a ball driving this thing off the ship, through the water and onto the beach in various places. I personally have used it to 'test' the land scenery of our upcoming Tongass Fjords X, driving it through the towns and adjacent areas of Sitka, Wrangell, Petersburg and the likes. Great fun !

Mind you, this is AJ's very first attempt at making a vehicle model and also his very first tinkering with the FDE (flight model). He's done a remarkable job and will improve over the coming months no doubt.

Should we have any new improvements, we'll make them freely available to our current customers!

Meanwhile, you will have to take it easy with the tank and NOT apply full throttle. That would not be realistic.... and we haven't found a good way yet to limit the full power and speed while at the same time keeping the track steering functional.

But driven with some self-restraint and care this is a great model and fun to play with !



Controlling the AAV-7A1

Where is it ???

First of all, if you want to DRIVE the AAV, you'll need to find it. We have put it on your 'aircraft list' (**select aircraft**) under the name of its manufacturer : **FMC Corporation**.

The AAV-7 Amphibious Assault Vehicle is a highly mobile amphibious vehicle that transports Marines and cargo in hostile land and water operations.

The LVT-7 was first introduced in 1972 as a replacement for the LVT-5. In 1982 FMC was contracted to conduct the LVT-7 Service Life Extension Program, which converted the LVT-7 vehicles to the improved AAV-7A1 vehicle by adding an improved engine, transmission and weapons system and improving the overall maintainability of the vehicle.

AAV-7 Operation in Flight Simulator X

Operation of the AAV element of this package involves a few minor changes to your key assignments in Flight Simulator. On land we control the AAV's steering by "toe" brakes (differential braking) and when in the water we use the 'rudder function' .

Here are the recommended **key settings** (you can of course use your yoke or joystick and pedals!):

Land steerage = Toe Brakes

or

Left turn= Cntrl/Left Arrow

Right turn=Cntrl/Right Arrow

Brakes=Cntrl/Down Arrow



Water steering= Toe Brakes/Rudder

Rudder (note: No changes need to be made to whatever your keyboard setting are for the rudder)

or

Left turn= Cntrl/Left Arrow

Right turn=Cntrl/Right Arrow

Brakes=Cntrl/Down Arrow

Lights

It is best to turn on the desired lights via individual key assignments. We use Shift+L.

Note: No changes need to be made to whatever your keyboard settings are for the panel and landing lights.

(Warning: using the "L" key to turn on all lights will cause the gun to fire, since it is triggered through the "lights" section of the aircraft.cfg.)

Gun

The gun is fired via the "strobe light" key. You may need to assign it yourself.

Use Options-Settings-Controls, then click Buttons/Keys tab, select 'Lights' from Event Category.

Doors

Driver hatch: Shift+E+2

Rear troop door: Shift+E

You can **raise and lower your seat** with Shift+Enter and Shift+Backspace.

(Note: by default, the normal key assignment for the main exit is the "E" key. Change your key assignment in Options/Settings/Controls/Buttons/Keys/Doors-select{open/close}/New Assignment. Press the "E" on your keyboard, and click ok.)

We have found it easiest to use the rudder pedals (if you have them).

Please note that if you increase speed beyond what is reasonable, the rudder reactions will get reversed and the tank may even get airborne. You don't want that.

Control diagram

	Joystick/rudder	Keys	
On land			
Turn left	Left toe brake	Cntrl+Left Arrow	
Turn right	Right toe brake	Cntrl+Left Arrow	
Brake	Brake button	Cntrl+Down Arrow	
Forward	Throttle	Keypad+9/Keypad+3	Just go slow!
Backward	-	Shift+F2+P	
In water			
Turn left	Left rudder	Keypad+0	
Turn right	Right rudder	Keypad+Enter	
Brake	Sorry, no brakes	-	
Forward	Throttle	Keypad+9/Keypad+3	Just go slow!
Backward	-	Shift+F2+P	
General			
Drivers hatch	-	Shift+E+2	
Troop rear door	-	Shift+E	
Lights	-	Shft+L	
Fire gun	-	Assign to preferred key	
Raise/lower driver's seat	-	Shift+Enter/Shift+Backspace	
Show GPS Window	-	Shift+1	
Show NAV2 Radio	-	Shift+2	
Open well deck door ship	-	Switch NAV2 to 108.00	

NOTE: Key and joystick assignments may be changed through your Options-Settings-Controls of course

The Tarawa Class ships



The primary war-fighting mission of the LHA-1 Tarawa class is to land and sustain United States Marines on any shore during hostilities. The ships serve as the centerpiece of a multi-ship Amphibious Readiness Group (ARG). Some 3,000 sailors and marines contribute to a forward-deployed ARG composed of approximately 5,000 personnel. The ships are designed to maintain what the Marine Corps calls "tactical integrity" - getting a balanced force to the same place at the same time. One LHA can carry a complete Marine Battalion, along with the supplies and equipment needed in an assault, and land them ashore by either helicopter or amphibious craft. This two pronged capability, with emphasis on airborne landing of troops and equipment, enables the Navy and Marine Corps to fulfill their present-day mission. Whether the landing force is involved in an armed conflict, acting as a deterrent force in an unfavorable political situation or serving in a humanitarian mission, the class offers tactical versatility.

The Tarawa class is designed to operate independently or as a unit of a force, as a flagship or individual ship unit in both air and/or surface assaults. These ships are key elements of the amphibious assault forces for the Navy. They incorporate the

best design features and capabilities of several amphibious assault ships currently in service: the Amphibious Assault Ship (LPH), Amphibious Transport Dock (LPD), Amphibious Cargo Ship (LKA), and Dock Landing Ship (LSD).

A capital ship, the Tarawa class can simultaneously fulfill six war-fighting requirements: flagship for embarked amphibious squadron, flag or general officer staff; aircraft carrier, with a 35-aircraft complement including AV-8B fighter/attack V/STOL Harrier jets, AH-1 helicopter gunships, CH-53E Super Sea Stallion "heavy lift" and CH-46D/E Sea Knight helicopters; amphibious assault launching platform, employing a variety of surface assault craft including the Navy's newest 40+ knot LCAC, 135-foot Landing Craft Utility (LCU), and other amphibious assault vehicles; hospital ship, equivalent to the nation's finest local hospitals with 17 ICU beds, 4 operating rooms, 300 beds, a 1,00-unit blood bank, full dental facilities, and orthopedics, trauma, general surgery, and x-ray capabilities; command and control (C4I) ship, with the Navy's most sophisticated SHF and EHF satellite communications capability; and assault provisions carrier able to sustain embarked forces with fuel, ammunition and other supplies.

LHA (helicopter carrier for FSX) by AJ Weber

The LHA's full length flight deck can handle ten helicopters simultaneously, as well as the AV-8 HARRIER jump-jet aircraft and OV-10 BRONCO fixed-wing turboprop reconnaissance aircraft. There is also a large well deck in the stem of the ship for a number of amphibious assault craft, both displacement hull and air cushion. Although the LHA usually doesn't carry Landing Craft, Air Cushioned (LCAC) boats onboard, they frequently operate with them and control them.

The ships have an extensive command, communication and control suite. These electronic systems give the amphibious task force commander nearly unlimited versatility in directing the assault mission.

The heart of the LHA's electronic system is a tactical amphibious warfare computer which not only keeps track of the landing force's positions after leaving the ship, but tracks enemy targets ashore. With current information on troop positions in relation to enemy targets, the tactical data system can also direct the targeting of the guns and missiles from the ship as well as the support ships. Additionally, the system maintains air and surface traffic control during the landing not only for her own helicopters and assault craft, but for the combat air control and task force support ships as well.



Nearly three football fields in length and 20 stories high, these ships are capable of embarking 3,000 sailors and marines when deployed. The ship's two-acre flight deck, 18,519 square foot hangar deck and 250 foot well deck enable an embarked landing force to accomplish its mission around the globe.

Specifications

Power Plant

Two boilers, two geared steam turbines, two shafts
70.000 total shaft horsepower

Length

778 feet (237.1 m) waterline
820 feet (249.9 m) overall

Beam

Extreme Beam: 106 ft
Waterline Beam: 106 ft

Draft

Maximum Navigational Draft: 26 ft
Draft Limit: 27 ft

Displacement

Light Displacement: 26255 tons
Full Displacement: 39925 tons
Dead Weight: 13670 tons

Speed

24 knots (27.6 miles per hour) (22 knots sustained)

Elevators

1 deck edge (40,000-pound capacity)
1 stern (80,000-pound capacity)

Crew

Ships Company: 82 officers, 882 enlisted
Marine Detachment 1,900 plus



LHA (helicopter carrier for FSX) by AJ Weber

Aircraft(Actual mix depends upon mission)

[6 AV-8B Harrier attack planes](#)
[4 AH-1W SuperCobra attack helicopter](#)
[12 CH-46 Sea Knight helicopters](#)
[9 CH-53 Sea Stallion helicopters](#)
[4 UH-1N Huey helicopters](#) OR
[6 AV-8B Harrier attack planes](#)
[12 CH-46 Sea Knight helicopters](#)
[9 CH-53 Sea Stallion helicopters](#)

Armament

2 - 21 Cell Rolling Airframe Missile (RAM)
4 - [25mm MK38 Gun Mounts](#)
2 - [20-mm Close In Weapons System Block 1](#)
5 - .50 Cal Mounts
2 - [SLQ-25 NIXIE](#)
6 - [Mk 36 Super Rapid-Blooming Off Board Chaff System \(SRBOC\)](#)

Sensors:

[Mk-23 Target Acquisition System \(TAS\) Mod 5](#)
[SPS-67 surface search radar](#)
[SPS-40E air search radar](#)
[SPS-48E 3-D air search radar](#)
SPS-64 navigation radar
[SPN-35A aircraft control/approach radar](#)
[SPN-43C aircraft control/approach radar](#)
[SLQ-32\(V\)3 electronic warfare suite](#)
URN-25 TACAN

Make it come alive

The decks on the USS Tarawa's are bare. For two reasons..... we are working on a new, dynamic way of 'populating' ships, but haven't finished it yet. And we know there are so many configurations – and preferences – that we thought we'd leave it up to yourself to start with !

Many of the equipment and objects that can be found on the Net are freeware products that we cannot include in our packages.



So you want other helo's and equipment on deck with you, what do you do? Here are some of AJ's tips:

Static items

For static items such as tugs, forklifts, crew etc.... there are many static items out there that people have modeled and posted at various sites as freeware and are easy to place on the ship using the object placement tool included with FSX. There is also a free program from Abacus that assists in the placement of these items, Scenery Shortcut. Just go to the Abacus main page to find it and the instructions for placing items on the ship.

Or you could use the commercial tool called 'Instant Scenery' from Flight1 and use that!

Add AI aircraft - one

Another way to add helo's is with the traffic toolbox. You'll need to have FSX Deluxe for this, with the SDK installed. With FSX running, go to the ship of your choice and go to the menu bar up top and choose Tools/Traffic Toolbox/Explorer. In the pull-down menu. Right-click

LHA (helicopter carrier for FSX) by AJ Weber

anywhere on the list of AI aircraft listed and choose 'create'. Go to "Type". The pull-down list contains all of the aircraft installed in your FSX/SimObject folder. Choose the aircraft you want to put on the flight deck with you. (Note: some user controlled aircraft may not be compatible to use as "AI"). I suggest looking around at the various download sites such as AVSIM, Simviation, Surclaro and such for AI versions of any aircraft you may want to place on the LHA's. Next, go down to the bottom and click "Select Co-ords". The next box gives you several options to place an aircraft pretty much anywhere you want in FSX. The easiest way is to choose "User Aircraft" and then click ok. Click ok again, and presto!! You are no longer alone!!!

Add AI aircraft - two

The third way to place AI aircraft is by modifying the AFCAD file in the scenery folder of this package (.bgl files with names that start with AF_2xxxx). For a complete overview and instructions, visit Project AI and jump on the forums. There are post there on how to create an "airport" with AI traffic that will take off and land on your ships. You can also post any questions you have about the process of how to make that happen and someone there is sure to answer any questions you may have. The guys over at Project AI are very helpful!!!

These are just a few suggestions on how you can create / modify this scenery package to its full potential. The idea here is to have fun, right?

Enjoy,

AJ Weber

Links for your pleasure

Some **YouTube links** we found on the Internet that might interest you too:

AAV Drives aboard HMS Tobruk

<http://www.youtube.com/watch?v=JgZJ9dsJqgE&feature=related>

AAVs launch off ship

<http://www.youtube.com/watch?v=TuCe64OCGeQ&NR=1>

AAV New Orleans

http://www.youtube.com/watch?v=F_XDaiIFV3A&feature=related

More AAV launches

<http://www.youtube.com/watch?v=FvEWFQVBdi0&feature=related>

AAV crew compartment - Korea

<http://www.youtube.com/watch?v=iRJmi5ny2VA&feature=related>

And the EFV, AAV's successor !

<http://www.youtube.com/watch?v=Jv9Eq1vopbc&feature=related>

<http://www.youtube.com/watch?v=VJNnAvsgFCw&feature=related>

Our loyal supporters

There are a number of people who have greatly helped us in getting this product ready for you; **our beta testers !**

In particular order we have had much help from:

Lars P Hammer
Nick Churchill
Chris Brisland

And also special mention goes to a Dutch gentleman who has made numerous 'gauges' for FS, made his own (Challenger) tank already and helped us with some of the vehicle gauges:

Rob Barendrecht

Thank you all for your help and support !!

About the author

A.J. Weber was born in Los Angeles, California, raised on the Big Island of Hawaii and now living in Everett, Washington. 42 years old and currently in college studying Gaming Software Development.

'AJ' served as a Hospital Corpsman for 4 years in the U.S. Navy and worked primarily in health care field as a Lab Tech up until 5 years ago. He then quit working for a local hospital in Seattle, Washington, in order to start his own business doing time studies for corporations located in the Seattle area.

AJ decided about 2 years ago to go back to school to get a Bachelor's in Software Development with the mindset of pursuing new challenges. Since he had started developing scenery packages for Flight Simulator three years prior, it seemed to be a natural transition.

The list of his endeavors include music studio producer, self employed corporate analyst and part-time software developer, just to mention a few.

Things he does to take his mind off of work is to travel to different areas around the Pacific Northwest with his girlfriend and dog and make it a challenge to find new and interesting places tied to history.

For now, establishing himself as software/scenery developer for Flight Simulator and further developing his skills is his primary goal. Ultimately doing freelance work for outside gaming companies and creating his own line of products for FS is the long term goal he has set for himself.

Wish him luck!!!



About FSAddon Publishing



Since you've come this far, you must be a die-hard simmer, or at least an avid reader. Congratulations on your perseverance, not many people read manuals at all ; -) To reward you, let me tell you something about our companies then.....

The **FSAddon Publishing** was an idea of AJ Weber and yours truly. We thought it was a good idea to help developers new to the commercial world of making and selling add-ons AND to provide a somewhat cheaper 'brand' with entry-level add-ons and prices. Ruud kindly offered to use the name if his well known brand, FScene !

The FSAddon Publishing hence is the little sister of FSAddon Publishing, and both are owned by **Silver Cloud Publishing**, François Dumas's privately owned company.

FSAddon.com was founded by Miguel Blaufuks and François Dumas with the main purpose of designing and publishing add-ons for the Microsoft Flight Simulator range of products.

But not just any add-ons!

Our aim is to provide **additional immersion** for the simulation by providing high-quality, **complete packages or series** that do more than just add an airfield, a utility or an aircraft. We are aiming to provide 'reality kits' that are a combination of additional FS software AND other things such as a story line, navigational information and tools, or even community access via the Internet.

We are also convinced that most buyers of these flight simulators only scratch the tip of the proverbial iceberg and won't use more than perhaps 10% of its capabilities. Another goal of ours therefore is providing education and information geared towards better and more satisfying usage of what you have already bought!

The company is affiliated with the well-known company **simMarket**, which in turn is part of the associated **simFlight Network**. SimMarket is the world largest on-line distributor of flight simulator add-ons. But up to now all products have been sold under their own name and without any (or much) guidance from simMarket.

The simFlight Network consists of a multitude of flight simulator news sites, covering many languages and areas around the world, and also hosting a large number of flight simulator user communities via forums and other means.

LHA (helicopter carrier for FSX) by AJ Weber

The two organizations together form a very powerful base for the newly founded FSAddon.com, providing all the basic infrastructure, skills and contacts needed to design, develop and publish flight simulator add-ons.

The company's aim is 3-tiered

- 1) To substantially expand the possibilities for beginning simpilots to use their flight simulator
- 2) To provide high-quality, extensive add-ons to the more experienced simpilots
- 3) To lower the thresholds for communicating and flying together using flight simulators and the internet.

We hope you'll enjoy our products, and above all, the pleasure of sharing this hobby with us and the hundreds of thousands of like-minded enthusiasts all over the world. If we can add just a little value to it, then we have achieved our goal.

Where to find us on the Internet:

Our main website is www.fsaddon.com (and the new version www.fsaddon.eu).
Our main support forums can be found at: <http://forums.fsaddon.eu/portal.php>

At the time of writing we are changing our main website. It might already be moved to www.fsaddon.eu by the time you read this. Try both!

Silver Cloud Publishing is here: www.SliverCloudPublishing.com

Other FSAddon products



If you like this product, then you will want to visit FSAddon's website (www.fsaddon.com) from time to time, because we are working on a whole range of similar and other products, from very well-known authors and designers, but also from very talented new people in the flight simulator industry.

Just check out the 'Products' link to see everything we have made so far, and the 'News' link for regular info on what we are working on !

Already famous products released in the past include such 'classics' as **Misty Fjords, Tongass Fjords and VancouverPlus, FSCargo, and more recently VancouverPlus for FSX, Plum Island, Piper Supercub and Bobcat T-50.**

At the time of writing this we have a lot of new titles under development, including **Tongass Fjords for FSX, Misty Fjords for FSX, Emma Field X, the Lysander Package** and more.....

See you in the (virtual) skies !

**François A. 'Navman' Dumas
Publisher**