

The CIRP “Stolly”

A repaint and panel edit of the Mitsuya “Hama” Hamaguchi Stalwart Vehicle

When we began working “above” Misty Moorings in the beautiful and dangerous glacier ice fields surround the Stewart, BC area, it became apparent that one of the keys to success would be a strong and reliable land-based vehicle. The CIRP Hovercraft, our second land-based vehicle, is versatile and fast, but cannot handle the tonnage that is needed to carry critical supplies between the ice stations and to the outlying bases. However, in Hama's amazing stable of vehicles, we found the Stalwart ... just what we needed!

History: The Stalwart was a private venture by Alvis that was adopted and entered service with the British Army in 1966 as a general transport truck in preference to the FV431, the load carrier variant of the FV430 series. It was one of the same line of vehicles that included the Alvis Saracen, Saladin and Salamander. The high mobility and amphibious capabilities were considered ideal for resupplying units in the field.



Capabilities: The Stalwart could carry 5 tonnes of stores, or tow 10 tonnes. In the water it was driven by vectored thrust water-jet propulsion units at about 6 knots. The drive system including the all-wheel drive, multiple gearboxes, and the water propulsion units was complex and needed a lot of maintenance. When the amphibious qualities become unnecessary, it was common for the water jets to be removed to reduce weight and maintenance.



The Stalwart's impressive over-terrain capabilities came from the fact that the 6-wheel-drive system lacked differentials, using simple bevel gears to transmit drive. A centre mounted no-spin differential allowed a certain amount of slip between the two sets of wheels on each side of the vehicle on hard surfaces, but there was no allowance for rotational speed differences between front and rear. The centre no-spin unit allowed the wheels on either side of the vehicle with most grip to drive when off-road. This had the effect of making the vehicle appear to crab (move from side to side) when negotiating

muddy conditions, thus making the Stalwart a true 6-wheel-drive vehicle, with 3 wheels locked together and turning at the same speed.

The CIRP team found this vehicle could handle almost anything in the glacier environment. It can climb inclines up to about 25 degrees, has a good braking system for going down steep inclines on ice, and can run at 50 mph over ice and 6 mph should it encounter water. We

decided Hama's Stalwart, affectionately known as the "Stolly" would be a significant addition to the CIRP vehicle stable.

We turned to our paint shop manager, Gary Moore and asked him to design it in "safe" colors for ice operations. We then ran it through the vehicle maintenance and communications shops to alter the panel for ice operations. We've added an altimeter, an AFD and a frequency selection panel, compass and GPS. All our ice routes and maintenance runs depend upon the GPS way points for finding instruments and weather stations located out on the ice, and all of our ice stations have an NDB that will guide the vehicle back to "the shed" at the end of the working day.

Credits: First of all, full credit must go to Mitsuya "Hama" Hamaguchi for the excellent design and detail of this vehicle. You will find it has shock absorbers, smoke effects, wheel effects and that it handles much as the real vehicle would on glacial terrain. As with the rest of Hama's work, we've learned to appreciate and rely upon his eye for detail and excellence.

Gary Moore, our CIRP's Paint Shop Manager was turned loose to alter the colors to signal orange and white. Gary's design gives the vehicle a unique appearance on the ice that makes it easy to spot should it get into trouble.

Installation: Installation is simple. Simply drop the CIRP Hama Stalwart folder into the "airplane" file in FSX. Put the the contents of the SOUND and EFFECTS folders into the FSX/Sound and FSX/Effects folders. To find it quickly, look under "manufacturer" ... look for "Hama". Also included in the package is the original panel.cfg and aircraft.cfg files. These have the original features with original military colors.

Operation:

In the 2-D panel, all of the instruments you will need are available.

- GPS – upper right hand corner
- NDB Frequency Selection – Lower right hand corner
- Altimeter – Lower right hand corner
- ADF – Lower, 2nd gauge from the left
- MiniPanel – The Minipanel view in 2-D is engineered for ice operations. This is a good view to use when you are searching for targets out on the ice.

In the VC (Virtual Cockpit) the extra instruments you will need are in a pop up from View - Instrument Panel - GPS. This brings up a pop-up window that has the ADF, Speedometer and GPS. This same window is handy to use when you are in an "outside view" ... you can be watching how your vehicle is handling and keep an eye on speed, and direction.

The vehicle will not go up steep grades, you are often going to have to zig/zag (tack) up a glacier keeping the degree of incline at a lesser angle. The best speed for this vehicle is 50 mph. On flat runs, you can easily go TOO fast ... watch the speedometer. Also, approaching an incline, increase your speed. If you see your speed slowing down on an incline, look for an "approach" of less incline. This is all a part of the experience of driving on the glaciers.

Experiment with the different views as you are accomplishing different kinds of tasks on different kinds of terrain. You may find a new “favorite” view that will help you accomplish your goals.

Routes and Dispatches: You will find special glacier “routes” in the Soule Glacier Scenery package download. These will take you from Summit Ice Station to the Through Glacier Research Center to R&R Lodge or Soule Landing and on to the Operations Center based at Stewart, BC airport. The routes are well-marked. The “flight plans” are in the zip file, when you add them to the FSX Flight Planner, then the GPS will guide you to the way points.

In the Summit Ice Station download package, you'll find several “dispatch maintenance runs”. These will guide you out over the ice to the nearby glaciers looking for the weather stations, glacier instruments and water sampling piers that have been positioned for data collection for the glaciers. Adding the FSX flight plan puts the dispatch on your GPS and you can easily find the targets ... target you will never find because of the expanse of the ice without instrument assistance.

Summary: At Return to Misty Moorings' Cambria Icefield Research Project (CIRP) page you will find ice routes between some ice stations, maintenance runs going out onto the ice to check on the various instruments that are placed there for data on the glaciers' movements. You will find “flight plans” that you can enter into the FSX Flight Planner that will light up your GPS with the way points you will need to find the instruments.

We needed a heavy-duty all terrain vehicle that could handle the harshness of the glacial environment, and we found it in Hama's Stalwart. We hope you enjoy “working on the ice” with this vehicle as much as we did when we were constructing CIRP.

Enjoy the Glacier Land Operations
The CIRP Team

PS: If you enjoy Land Operations on the glaciers, don't forget to download the CIRP Hovercraft that is also Ice-engineered for you.

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The Text from the Downloaded “readme”:

FSX STALWART made by Mitsuya@Hamaguchi(nickname is hama)

This STALWART is made by Mitsuya@Hamaguchi (hama)

Model Designers : Mitsuya@Hamaguchi (hama)

Flight Dynamics Designer : Mitsuya@Hamaguchi (hama)

textures : Mitsuya@Hamaguchi (hama)

Installation: just put in your FSX / Simobjects / Airplanes folder and then copy the contents of its effects folder into the main FSX effects folder and it should work

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