

The hovercraft's basic design was devised in Great Britain in the early 50's with the first practical working model coming forth in 1962. A new concept of air lift was devised for the hovercraft with one large fan forcing air down into a rubberized hull lifting the hovercraft off the ground. An inter-connecting aircraft type propeller is used to transport the vehicle horizontally up to 70 mi. per hour.

Presently in Great Britain, the hovercrafts are being used commercially between Britain and France, crossing the English Channel, at scheduled intervals, carrying up to 10 persons. By crossing the Straits in a hovercraft it takes 15 to 20 minutes time. Other models are on the drawing boards, which will carry up to 300 people. The designer hopes to compete with its rival, the hydrofoil, in a few years.

In the United States, Bell Aerosystems hold the rights to build hovercrafts. From Bell, the U.S. Navy has purchased four such hovercrafts. For the Navy Bell, has made several changes from its civilian model; these changes include adding armored plating, a turret for twin 50 caliber machine guns on top of the craft, and radar.

The basic design the Navy purchased, the SK-5 Model, is 39 feet long, 24 feet wide and 16 feet high at the radar mast. The hovercraft is powered by one General Electric gas turbine engine with a medium power of 1150 horsepower. Like the other models, the SK-5 has two fans, one for lift and one for thrust, both being connected to one motor.

The lift fan is 7 feet in diameter, and sucks air in from the outside. As the air passes through the lift fan it is forced down into the hull and held under the hovercraft by rubber skirts, thus creating a cushion of air on which the hovercraft floats. Over smooth surfaces such as roads, water, swamps, mud flats, and rice paddies or other level terrain the hovercraft can maintain a level of 2 to 5 inches above the surface and give a smooth ride. Over rice paddy dikes, crossing roads at 90 degree angles, and hills, boulders, mounds, creek beds or other non-level terrain, such as choppy rough seas, the hovercraft can be piloted in an attitude enabling it to ride two to three feet off the ground, thereby providing ride over obstacles. The whole idea of the lift fan comes from the principle of a helicopter blade forcing air down, thus lifting the helicopter.

The thrust fan is an aircraft-type propeller which gives the hovercraft its speed across water, land, other ~~smooth~~ surfaces. The propeller is a pusher type; that is it pushes the hovercraft along the surface rather than pulling it.

The Navy has just finished training and evaluating the hovercraft at the River Raider Basin, known as Dong Tam. Dong Tam Base Camp is located 50 miles south of Saigon, on the My Tho River. The base camp is occupied by two services: the 2nd Brigade of the U.S. Army's 9th Inf. Div. and the U.S. Navy's Task Force 117, Joint Riverine Force, to which the hovercrafts have been assigned. Coastal Division 17 is the detachment for the hovercrafts at Dong Tam. The hovercrafts are called (MAC-V meaning PATROL AIR CUSHION VEHICLE).

All three hovercrafts at Dong Tam are operational, the 4th hovercraft is located in the U.S.. These three hovercrafts are armed with twin 50 caliber machine guns on top of the craft, and one 30 caliber

SUMMARY CONT.

machine gun on each side of the cabin. Consideration is being given to add other weapons in the future. The Navy's hovercrafts can, if necessary carry up to 30 combat equipped troops on the outside of the craft; in addition to its five and sometime six man crew. The crew is broken down as such: pilot, sometime asst. pilot, navigator, and three machine gunners.

Hitting speeds of up to 70 miles per hour, the hovercraft travel faster than any other type of amphibious craft in the military system. Army and marine Armored Personnel Carriers can go most places the hovercrafts go except swamps, where the APC's bog down. APC's can cross rice paddy dikes, but are much slower and therefore more vulnerable to recoilless rifle fire. Various other types of crafts and boats are employed in the water ways of South Vietnam by the U.S. and the South Vietnamese Government. Landing barges with machine guns, Swamp buggies similar to those used in the Florida Everglades, and South Vietnamese sampans with machine guns patrol the river and by ways. However none of these crafts can cross roads or rice paddy dikes, which is often necessary in order to pursue the Viet Cong as he flees.

What is more important is the fact that hovercrafts do not destroy vegetation and crops such as rice, cabbage or onions planted by the peasant farmers; the way APC's do. Neither do they cut fishing nets the way out board motors do. To prove this, during the testing stage of the craft one of the men volunteered to allow a hovercraft to run over him in the water. He came out of the experiment unharmed.

The steering of the hovercraft is much like that of an airplane. It has twin rudders and an aircraft ailerons sort of assembly called skirt-lifting rods, which aid in banking the hovercraft during tight turns.

Coming upon a suspected enemy position, the hovercraft can either open up firing its 30's and twin 50's into the shore line, or assault the position up on land before letting the troops off. The same can be done in picking the troops up on land or on the bank of a stream. The design of the hovercraft allows it to take direct hits from machine gun fire in the hull and Plexus Chamber, with only minor adjustments having to be made in the steering system. During the testing stage, the Navy had a five foot puncture in the Plexus Chamber and the PAC-V hovercraft was not put out of action.

Once back in Dong Tam, and after the hovercrafts have been secured in their safety restraints, the crew and combat troops can take a break and enjoy a cold coke at the snack or enjoy the swimming pool at Dong Tam/

Unclassified

18 19 200 67
1-12-67-(A)A

Lt. Wesson

Uher 23704

Hovercraft

SP/4 Nash

600ft. 5in. 7 1/2

Dong Tam

SP/5 Foulke
SP/4 Melenda

File 391 -111

Present

Wild

1

Wild

Wild

1

Wild

2

Wild

2

Wild

Wild

6,7

Wild

Wild

6,7

Wild

Of the Hovercraft base camp at Dong Tam.

Of the crew of the Hovercraft talking over the mission.

Sound of generator running that charges the Hovercraft battery.

Of the Hovercraft starting it's engine and warming it up.

Of the sound it makes after entering the water.

Of the Hovercraft passing directly by the microphone.

Sound of Hovercraft starting from the inside, and of crew talking.

Sound of Navy Capt. and Army Lt. talking over movement.

Sound of the Hovercraft while running down the river.

Sound of a 50cal., 30cal., and a m16 firing at the shore.

Sound of a pump that is used to wash the Hovercraft after a mission.

18-19 Dec 67

4-12-67(AA)

UNCLASSIFIED

Hovercrafts

Dong Tam, about 50 miles south of Saigon

Lt Wasson

Sp5 Paulke
Sp4 Molenda

Sp4 Nash

Bell & Howell Films

591 & 311

Uber # 23704

700 Ft.

Air Freight

ECO 7255

ROLL 1

1. 1. WILD LS. Hovercraft slowly inflating its rubber cushion and starting to move toward the runway
2. 1. WILD LS. Hovercraft moving down runway; the reason it sways to one side is due to the force of the wind against the craft. There is very little friction with the runway's surface, making the craft a target of the wind
3. 1. WILD LS. Hovercraft moves down the runway, throwing up a cloud of dust in its wake
4. 1. WILD LS. Hovercraft pulling up onto the shore and deflating its rubber cushion
5. 1. WILD LS. Pan shot of the Hovercraft moving down the runway and entering the water
6. 1. WILD MS. The radar on the Hovercraft operating; the twin 50 caliber machine gun operator is included in picture
7. 1. WILD CU. The Hovercraft's rudder turning back and forth
8. 1. WILD CU. The fan pump of the Hovercraft starting up and pushing air into the lift chambers
9. 1. WILD LS. Pan shot of the Hovercraft moving out of it's reversionment and heading down the runway

ROLL 2

1. 1. WILD CU. Low angle hovercraft coming down ramp and going into the water.
2. 1. WILD LS. Hovercraft in the My Tho River.
3. 1. WILD MS. Troops filing past to get on the hovercraft
4. 1. WILD CU. Troops filing past and getting on hovercraft.
5. 1. WILD MS. Door to the hovercraft closing.
6. 1. WILD CU. Shark mouth painted on the hovercraft pulling away from the shore.
7. 1. WILD MS. Vietnamese kids watching the hovercraft.

ROLL 2 CONT	8.	1.	WILD	CU. HAI James B Pitton of Mesa, Ariz. giving hand signals to the Hovercraft
	9.	1.	WILD	MS. HAI Pitton giving hand signals
	10.	1.	WILD	MS. Rear shot HAI Pitton giving hand signals to the incoming craft
	11.	1.	WILD	MS. HAI Pitton giving hand signals to the Hovercraft
	12.	1.	WILD	CU. Vietnamese people watching the Hovercraft
ROLL 3	1.	1.	SILENT	LS. The next 10 shots are aerials--Shot of the countryside
	2.	1.	SILENT	LS. Pan shot from the ground to the river as the helicopter reaches the river
	3.	1.	SILENT	LS. The Hovercrafts maneuvering in the rice paddy
	4.	1.	SILENT	LS. Hovercrafts moving over rice paddy dikes
	5.	1.	SILENT	LS. Hovercrafts in the rice paddy
	6.	1.	SILENT	MS. Hovercrafts maneuvering in the rice paddy
	7.	1.	SILENT	LS. Soldiers getting off the Hovercrafts
	8.	1.	SILENT	LS. Hovercrafts crossing rice paddy dikes
	9.	1.	SILENT	LS. Hovercrafts sitting in the rice paddy
	10.	1.	SILENT	LS. Patrol ships on the My Tho river
ROLL 4	1.	1.	WILD	CU. Hovercraft pilots face.
	2.	1.	WILD	CU. Asst. pilots face going through check list
	3.	1.	WILD	MS. Hovercraft leaving ramp at Dong Tam and entering the My Tho River.
	4.	1.	WILD	MS. Lead helicopter coming across the river.
	5.	1.	WILD	CU. Troops sitting on the outside of hovercraft.
	6.	1.	WILD	CU. Machine gunner AMF-3 Bart L. Bial of Ravenna, Mich.
	7.	1.	WILD	MS. Control panel of the hovercraft, with pilots hand on the control stick.
	8.	1.	WILD	MS. Hovercraft coming out of the river and up onto land.
ROLL 5	1.	1.	WILD	MS. Hovercraft crossing rice paddy dikes.
	2.	1.	WILD	MS. Lead hovercraft sitting in a rice paddy.
	3.	1.	WILD	MS. Lead hovercraft crossing rice paddy dikes

ROLL 4/5	4	1.	WILD	HS.	Troops on the outside of the hovercraft with lead hovercraft in foreground.
	5.	1.	WILD	HS.	Troops getting off the hovercraft to check a village.
	6.	1.	WILD	HS.	Troops moving through the rice paddy towards the village.
	7.	1.	WILD	HS.	Other hovercraft sitting in the rice paddy near the village.
	8.	1.	WILD	HS.	Other hovercraft coming forward in the rice paddy.
	9.	1.	WILD	CU.	Gunner Bedia's face.
	10.	1.	WILD	CU.	Gunner Bedia opening a can of C-rations
	11.	1.	WILD	CU.	Gunner Bedia eating lunch by his 30 cal.
	12.	1.	WILD	CU.	Pilot of the hover craft (LBJ Andrews Martin of Kentucky, Ohio.
	13.	1.	WILD	CU.	Navigator Filton James of Mesa, Ariz.
ROLL 6	1.	1.	WILD	HS.	Gunner firing 30 cal. out starboard window.
	2.	1.	WILD	CU.	30 caliber being fired.
	3.	1.	WILD	CU.	AW J Bedia firing the 30 caliber.
	4.	1.	WILD	HS.	Barrel of 30 caliber moving as its fired and tracer coming out.
	5.	1.	WILD	IS.	Bullets hitting the water and back of the river.
	6.	1.	WILD	HS.	Barrel of the 30 caliber with troops sitting on the outside of the hovercraft.
	7.	1.	WILD	CU.	expanded brace coming out of the machine gun.
	8.	1.	WILD	IS.	Bullets hitting the water.
	9.	1.	WILD	HS.	Rounds from the 50cal. dropping down.
	10.	1.	WILD	HS.	50 cal. gunner loading a new belt in the 50.
	11.	1.	WILD	CU.	Brace from 50 cal and 30 cal dropping on the floor of the hovercraft.
	12.	1.	WILD	HS.	Hovercraft speeding through the river.
	13.	1.	WILD	CU.	30 caliber being fired from the top of the craft.
	14.	1.	WILD	HS.	30 caliber being fired from hovercraft and bullets hitting the water and beach.
	15.	1.	WILD	HS.	Troops sitting on the side of hovercraft

ROLL 7

1.	1.	WILD	HS.	ADV-3 Delta heading over to the 30 cal.
2.	2.	WILD	IS.	Tracer and bullets hitting the beach.
3.	1.	WILD	CU.	Expanded turret on the floor of the hovercraft.
4.	1.	WILD	HS.	ADV-3 Delta firing his 30 cal. machine gun at beach.
5.	1.	WILD	HS.	Troops getting off the hovercraft back at Dong Tam.
6.	1.	WILD	HS.	They were giving signals to pilot of hovercraft as the pilot steers the craft into the movement.
7.	1.	WILD	HS.	Men pushing the hovercraft into its movement.
8.	1.	WILD	HS.	Men pushing the hovercraft into its movement.
9.	1.	WILD	IS.	Reaching pool at Dong Tam.
10.	1.	WILD	IS.	Men in entering pool at Dong Tam.
11.	1.	SILENT	CU.	Two men swimming themselves at the entering pool.
12.	1.	SILENT	HS.	Men entering the length of the pool.
13.	1.	SILENT	CU.	Two bullet holes in the hovercraft.
14.	1.	SILENT	CU.	One bullet hole in the hovercraft's side.
15.	1.	SILENT	HS.	Three bullet holes in the side of the hovercraft.