About the McFARLAND: The McFarland is one of four oceangoing hopper dredges owned and operated by the U.S. Corps of Engineers. It is the only one in the world with triple capacity for direct pumpout, bottom discharge and sidecasting or boom discharge.

Designed by the Corps' Marine Design Center, it was built at Sparrows Point, Md., by the Bethlehem Steel Corporation and completed in April 1967. Its name honors the late Arthur McFarland, a Corps of Engineers authority on dredging.

The McFARLAND has a twofold mission:

1. Emergency and national defense dredging – as required and on short notice – anywhere in the world.
2. Planned dredging in commercial waterways, mainly for Federal navigation projects along the Atlantic and Gulf Coasts from Maine to Texas.

How it Works: Dredging is accomplished by a dragarm on each side of the ship with a draghead at each end. As the ship navigates the channel with its dredging pumps engaged, the dragheads are lowered to the channel bottom. Like vacuum cleaners, they pull the dredged material into the ship's hoppers.

The McFARLAND can then discharge the material any of three ways:

1. As a conventional hopper dredge with bottom discharge into deep water.
2. As a sidecaster discharging dredged material aside the channel.
3. As a pipeline dredge pumping material into disposal areas or through a direct ship-to-shore pipeline to beaches needing replenishment.

What it Can Do: The McFARLAND offers a degree of performance and flexibility unmatched by any other dredge:

1. It can handle a variety of materials including silt, sand, clay, shell and mixtures, thanks to these features:
   - High-powered pumps
   - Large single open-hopper design amidships
   - Hopper distribution system with retention capability for efficient handling of fine materials
2. It can dredge year-round in any environment, working around the clock while on assignment.
3. Its average removal rate in a typical year (180 days) is 4 to 7 million cubic yards – enough dredged material to fill an area a football field one-half to three-fourths of a mile high.

About the Crew: The McFARLAND is operated by a 45-member civilian crew. Many of the members, including 16 deck and engine room officers, hold U.S. Coast Guard licenses. Certified by the USCG as an oceangoing vessel, it undergoes regular annual safety inspections.

MASTER..... Karl A. Van Florke
ASSISTANT MASTER..... Thomas M. Evans
CHIEF ENGINEER..... Frank J. Moshier
ASSISTANT CHIEF ENGINEER..... Shawn Jennings

Vital Statistics

Dimensions	Length, with boom overhang	319' 8"
	Boom Length beyond the vessel	136'
	Beam, molded	72'
	Depth amidship, molded	33'
	Length of drag arms	63'
Material	Hull& superstructure	Steel
Dredging deth	Maximum	55'
	Minimum	21'
Design mean draft	Loaded	22'
Hoper capacity	1 hopper	3140 cu. Yds.
	Total capacity	12 doors
Draft	Loaded - Forward	23' 7/8"
	Loaded - Aft	23' 7/8"
	Light - Forward	15' 3"
	Light - Aft	16' 6"
Displacement	Loaded	9,720 tons
	Light	4,007 tons
Tonnage	Loaded	6,036 tons
	Light	5,644 tons
Pumpming power	Total output	5,600 hp
	Motors, electric (2)	2,800 hp ea. @ 225/425 rpm
	Engines, diesel (3)	2,160 hp ea. @ 900 rpm
	Pumps (2)	225/425 rpm
	No. of vanes	5
	Suction pipe	34" diam.
	Discharge pipe	26" diam.
Propulsion power	Total output	6,000 hp
	Engines, direct drive diesel (4)	1,600 hp ea. @ 900 rpm
	Propellers, 4-blade, variable pitch (2)	13' 6" diam.
	Bow thruster, electric, reversible	65" diam.
	Thrust	13,000 lbs. @ 500 hp
Direct pumpout	Discharge line	26" diam.
	Maximum length of discharge line	20,000'
Sidecasting	Discharge pipe	34" diam.
	Length of pipe	175'
	Casting distance from side of dredge	163'
Fuel	Capacity	270,000 gal.
	Cruising range	8,500 mi.
Speed (statute mile)	Light	15.4 mph
	Loaded	14.9 mph


U.S. Army Corps of Engineers
Philadelphia District
Dredge McFarland