

Now you see it, now you don't

N.S. boat builder creates stealthy prowler prototype

By **BRIAN MEDEL**
Yarmouth Bureau

METEGHAN RIVER – The mongoose is an aggressive hunter and almost always victorious because of speed and agility.

In Nova Scotia, the Mongoose is still very much a secret.

The prototype of a new domestic defence boat is fast and virtually undetectable because of stealth enhancements.

Digby County boat builder **A. F. Theriault and Son Ltd.** recently launched the test model of what it calls the most advanced marine technology available.

The Mongoose mid-water patrol boat features a hull of ceramic-reinforced plastic, says Russell Saunders, a company vice-president and chief of research and development.

The boat is still behind closed doors and the development protocol remains highly classified, he said in an interview.

"The boat is the result of five years of intense R&D work here that emanated from the 9-11 crisis in the States," said Mr. Saunders.

"We immediately had a downturn in our custom-yacht industry and at the same time we have

a downturn in the fishing industry."

The Meteghan River company looked for other ways to survive and keep as many as 150 people employed.

The Mongoose was born of this necessity.

"The boat was designed specifically for homeland security and defence for anti-terrorism, anti-smuggling . . . that sort of thing. The target market is agencies that are fighting crime at all levels," said Mr. Saunders.

The boat is very light because of its ceramic-reinforced composite hull.

Most liquid resins that are polymerized become solid, but essentially, it's all plastic. By itself, the plastic isn't very strong, so it needs reinforcing.

"We worked out two ceramic solutions for a panel. We call it the super panel," said Mr. Saunders.

The test boat has attained speeds of about 95 kilometres per hour in two-metre seas.

"One of the key features of this vessel is that it has several levels of stealth and one level is the optical," said Mr. Saunders.

A digital photograph of waters where the boat would oper-



A.F. Theriault and Sons Ltd. in Meteghan River has created a mid-water patrol boat featuring a hull of ceramic-reinforced plastic, which a company official says is 'the result of five years of intense R&D work . . . that emanated from the 9-11 crisis in the States.'
(Contributed)

ate can be taken and then a customized camouflage pattern that can be applied to the vessel would mimic the surrounding sea and shoreline.

This has been done with the test model in St. Marys Bay.

"It's almost impossible to see the boat at certain times of day under certain light conditions," he said.

Angle is also a stealth aid. Some angles aboard the boat won't reflect radar back to its source.

And certain hull and superstructure core materials will absorb radar beams and not reflect them.

This is all part of the testing process.

The boat is also insulated against heat-seeking infrared rays, said Mr. Saunders.

"We also have the technology to screen the vessel against microwave attack, as we call it."

A microwave pulse can be fired at a target and will wipe out all on-board electronics, dis-

abling a vessel. Normally the shipyard will build a scale model of a vessel for testing in a tank.

"In this case, we built a scale model 27 feet (nine metres) long and the test tank is the ocean," said Mr. Saunders.

The Mongoose has a conventional propeller and a regular motor and the boats can be built as long as 40 metres with in-board engines. The Mongoose now under development is powered by a 275-horsepower Mer-

cury outboard. "As far as speed goes, this vessel is restricted only by the power of the engine," said Mr. Saunders.

Project designer David Saulnier has taken the vessel out on test runs.

"One of the biggest thrills we get when we bring it out is (from) its lateral stability, which is the way it handles when turning at high speeds. There's no dipping or angling. There's no banking in this hull. It's just phenomenal," said Mr. Saulnier.

"The prototype that we have here is for destructive testing," said Mr. Saunders.

"We push this prototype to the point at which something will break or . . . stress out. Then we go back and fix that area and we push it to the next level to see how much it can take."

The company has received expressions of interest from some friendly nations, they say, in all cases for domestic security.

The Mongoose won't be for sale in the general marketplace.

"You have to be an approved agency," said Mr. Saunders.

A. F. Theriault has cost shared with the National Research Council of Canada on this and related projects. To date, R&D has totalled about \$800,000.

Company president Arthur F. Theriault said he's pleased that after 67 years in business, the yard is still providing the most advanced technology available.

(bmedel@herald.ca)