

Case Study: Marine & Offshore / Small Boat / Engine Space

Protecting Miss GEICO



Miss GEICO IV in trials off Key West, FL is now equipped with a Stat-X aerosol fire suppression system.

Situation:



Fire overwhelmed prior HFC fire system

In July 2012 the Miss GEICO racing team faced a devastating set-back when their World Champion powerboat suffered an internal fire and was engulfed in flames. The flare-up began in the engine compartment and quickly overpowered the traditional HCFC gas fire protection system. Fortunately no one was hurt, but the reigning queen of extreme unlimited class racing was dead in the water.

“We’ve made a lot of advancements to make the new, 4th Generation Miss GEICO the most formidable racing boat in the world,” said the boat’s driver Marc Granet. “And as extra insurance, this time we included an advanced Stat-X[®] aerosol fire detection and suppression system.”

Traditional fire systems use stored dry chemical or gas suppressant in pressurized tanks. Aerosol fire systems are different. They pack an advanced agent into small, unpressurized stainless steel generators that remain inert until the system actuates in response to fire. Then, a chemical process generates a highly-effective, micron-sized agent that floods the area and quickly suppresses the fire.

Alternatives Considered:

A Stat-X aerosol fire system was evaluated against traditional halogenated gas fire suppressants.

Issue	HFC / HCFC Gas System	Stat-X Aerosol Fire System
Space is very limited, not easily accessible	Bulky agent tanks and distribution piping take up room and limit mounting choices	✓ Small, self-contained aerosol generators fit easily; no distribution piping needed
Need to maximize fire-fighting	HFCs require high concentrations	✓ Stat-X is 10X more effective than HFCs
Must be lightweight, resist shock, and survive marine environment	Agent tanks are heavy, under pressure, and subject to leaks from steady vibration	✓ Unit sizes from 0.8-25 lbs., unpressurized, sealed, with heavy-duty brackets
Not possible to seal compartment	Gas over-pressurizes space, escapes	✓ Design concentration allows some opening
Highly variable airflow in space	Tight closure needed to keep gas in space	✓ Agent suspends in place; staged discharge
Low maintenance, easy recharge	Must regularly inspect pressure level/weight; spent tanks need to be ordered, replaced	✓ Stainless steel, long lifespan, no gauges; keep spares handy for change-out on road
Is it environmentally friendly?	High Ozone Depletion Potential (ODP) and/or Global Warming Potential (GWP)	✓ Zero ODP, zero GWP; chemically blocks fire, does not work by depleting oxygen



Family of Stat-X advanced aerosol fire suppression generators

Fire Protection Choice:

- Linear fire detection instead of spot for better coverage, less airflow effect
- Automatic “mini” fire control panel plus operator panel with manual actuation
- Optional 15-second engine shut-down delay allows driver to pull off the course
- Designed with both initial plus delayed agent release for extended discharge
- Spare units available for support trailer for crew replacement while on road

Bill of Materials (Partial)

No.	Part Number	Description	Quantity
1	15550	Model 1000ME electrical actuation generator, 5.5 kg (12.2 lbs.)	4
2	18016	1000/1500/2500 stainless steel heavy duty bracket	4
3	HFSS-31500	Stat-X BFSS primary panel	1
4	15130	Model 250E electrical actuation generator, 2.5 kg (5.6 lbs.)	2 pcs.
5	18011	250/500 stainless steel heavy duty bracket	2 pcs.
6	HFSS-31501	Stat-X BFSS operator display panel	1
7	HFSS-31502-25	Panel harness	1
8	HFSS-31503	Generator terminal connector	2
9	HFSS-31504	Generator series connector	4
10	HFSS-31506	Detection wire adaptor module	6
11	PHSC-356-XCR	Protectowire linear heat detector cable Type XCR 356°F/180°C	100 ft.

Materials specific for the Miss GEICO installation only. List varies depending on the particular hazard protected.

Installation:

A Stat-X aerosol fire suppression system was installed in the Miss GEICO IV extreme unlimited class racing boat prior to the 2013 racing season.

System components were provided by Fireaway Inc. while technical supervision, training, final testing and check-out was provided by SAFE Fire Protection, Inc., a local authorized Stat-X distributor from Tampa and West Palm Beach, Florida.

Actual installation was done by the Miss GEICO Racing rigging crew. This gave the flexibility needed so the system could be installed during a regular maintenance cycle to minimize racing downtime.

How to Get Stat-X Protection:

Stat-X fire protection is available through a worldwide network of authorized distributors knowledgeable in special hazard fire suppression. Go to www.statx.com or scan the QR code to find one nearest you.



Stat-X operator panel fits neatly in boat console