

POPULAR MECHANICS

HOW YOUR WORLD WORKS

What to Do in
**A Nuclear
Attack**

Page 9

Hurricanes
Wildfires
Bomb Cyclones
Earthquakes
Tornadoes
Mudslides
Superstorms

HOW TO

SURVIVE THE NEXT DISASTER

**The Knowledge, Equipment,
and Inspiration You Need**

Page 66



Build a
Guitar

Page 84

**Electric
Trucks
and
Your Food**

Page 12





AIR, LAND, AND SEA

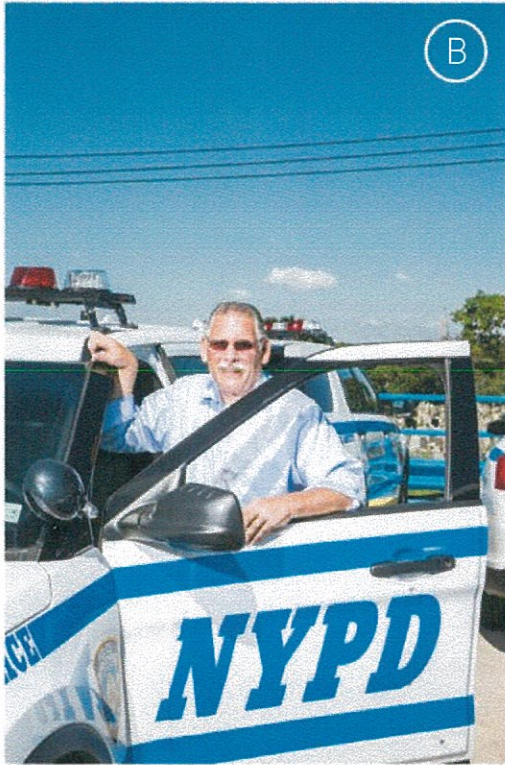
In the Garage with NYPD's Fleet Mechanics

The New York Police Department's 9,000 vehicles take a beating. Meet the people who keep them running.

THE NYPD'S FLEET GARAGE is too complex to call it that. It's more like a small city, complete with a body shop, where old vehicles are stripped for parts while new ones are fitted with lights and decals, and a resident insurance adjuster to handle warranty paperwork. The mix of cars, side-by-sides, and scooters that get repaired here changes with the seasons. "We're going to all-wheel drive where we can, because that improves our response capability during winter storms," says deputy commissioner for support services Robert Martinez, who oversees the land-based fleet. In summer, 24-hour posts call for hybrids, which can idle all day without overheating. And when the next Hurricane Sandy hits, it's jacked-up Ford pickups carrying rigid-hull inflatable boats. Of course, the Harbor Unit's garage in Brooklyn has some bigger boats. The biggest: two 71-footers, with huge diesels producing 3,900 horsepower. And out east is the Aviation Unit, where technicians work on twin-engine helicopters outfitted with infrared cameras and spotlights. Visit all three garages and you see that maintaining thousands of machines, from mopeds to jet turbines, is a constant feat of skilled labor and efficiency. Meet the people who keep the country's biggest police force running.

Photographs by David Williams





B



D

A. Marootnandan Naraine (right) delivers a wrecked Ford Fusion patrol car to supervisor and auto-body worker Carmelo Martinez. For jobs like this, the shop has its own insurance adjuster, so repairs—including warranty work—can be handled entirely in-house.

B. Deputy commissioner for support services Robert Martinez, who oversees the NYPD's Fleet Services Division and its 9,000-plus vehicles.

C. Patrick McGreevy works in the salvage cage, where stripped parts are stockpiled for reuse. The NYPD's industriousness even extends to the "salvage sound system" that enlivens the shop with tunes. It's made of cardboard boxes and old car speakers.

D. Auto mechanic Santos Font started with the

NYPD 24 years ago and is the go-to guy for the department's motorcycles, scooters, and specialty vehicles such as this side-by-side. He also handles fabrication, sometimes using a small blast furnace for blacksmithing.

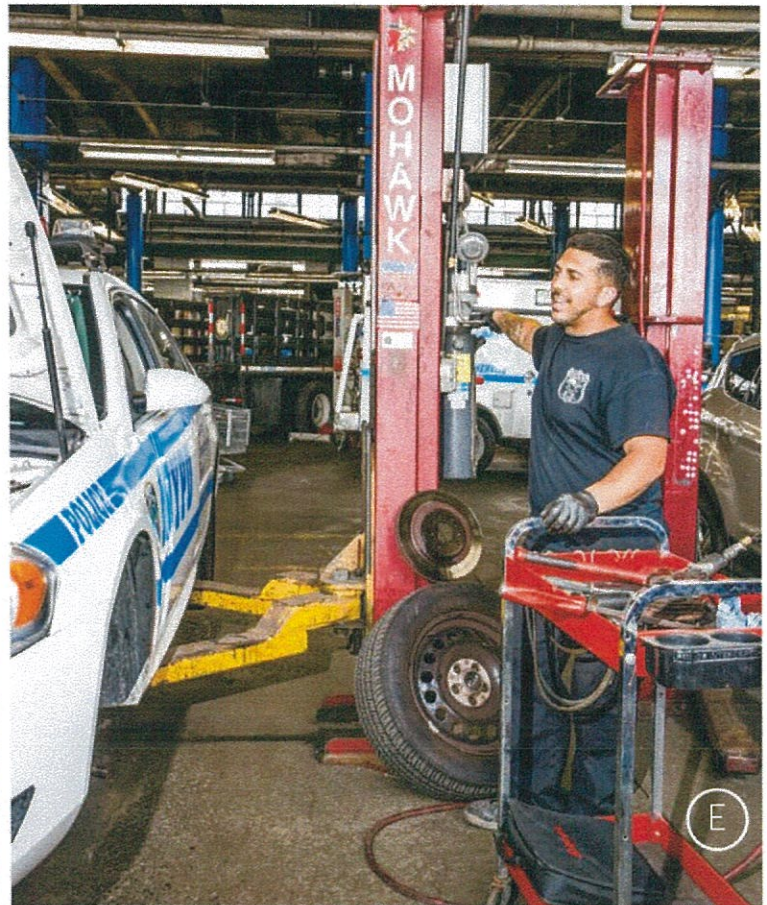
E. George Pirpinias puts an NYPD cruiser on the lift for service. Cars stay in the fleet for 42 months, trucks for 60—if they last that long.

F. A bulletproof window panel used for testing. Door and window armor is external and is swapped between cars as new vehicles cycle into the fleet.

G. Auto-body worker Hubert King welds and fabricates parts for the ground fleet's biggest trucks, like the Ford Super Duties used during floods.



F



E

ACCORDING TO OFFICERS > Best police-car driver's seat ever: Plymouth Gran Fuzy
 Worst police-car driver's seat ever: Chevy Caprice "bubble," which needed a milk crate to prop up the wobbly seat back



A

A. Officer George Wright services a jet drive on one of the Harbor Unit's patrol boats. Note the sidearm: Harbor Unit technicians are also on-duty police, ready to respond should the need arise.

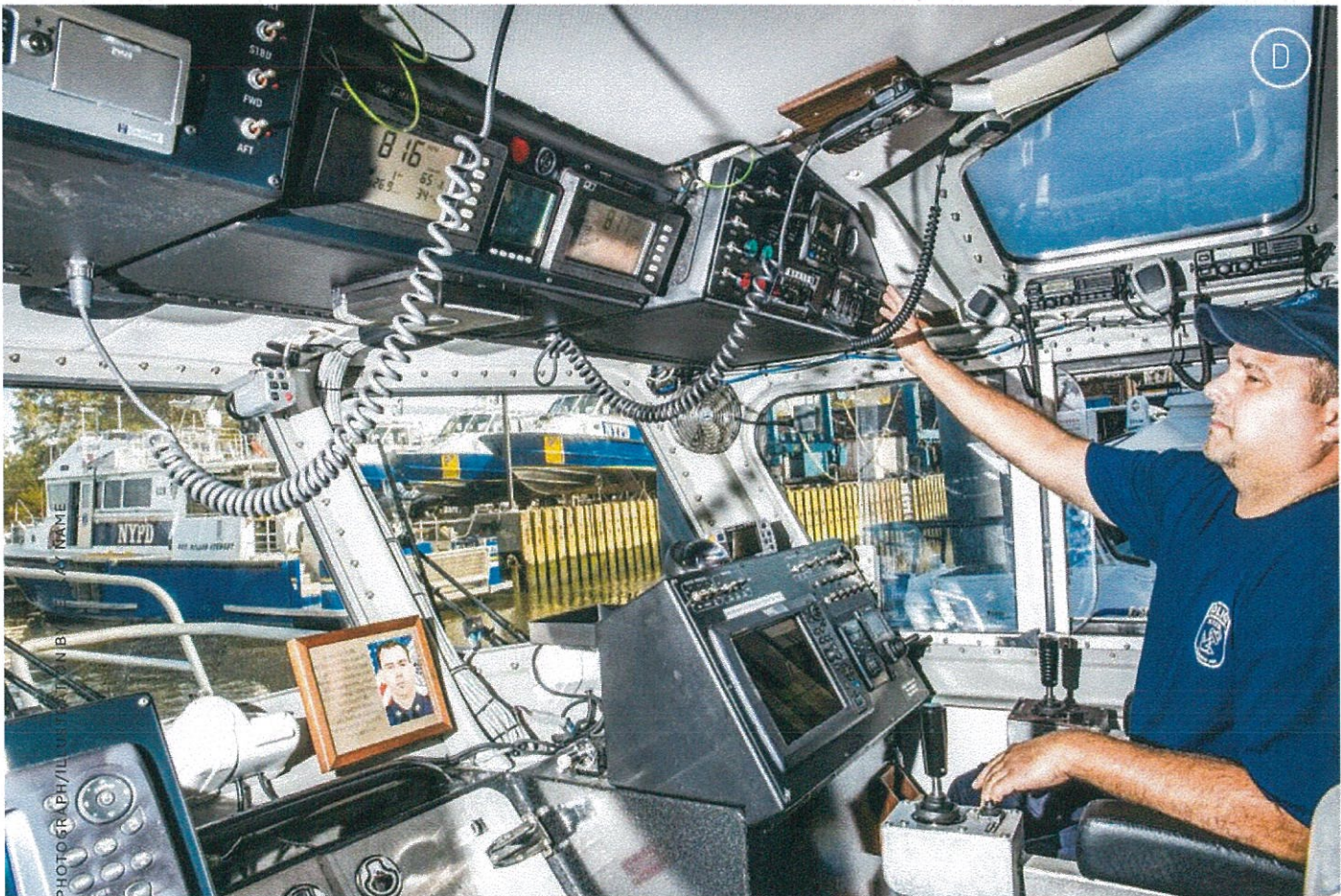


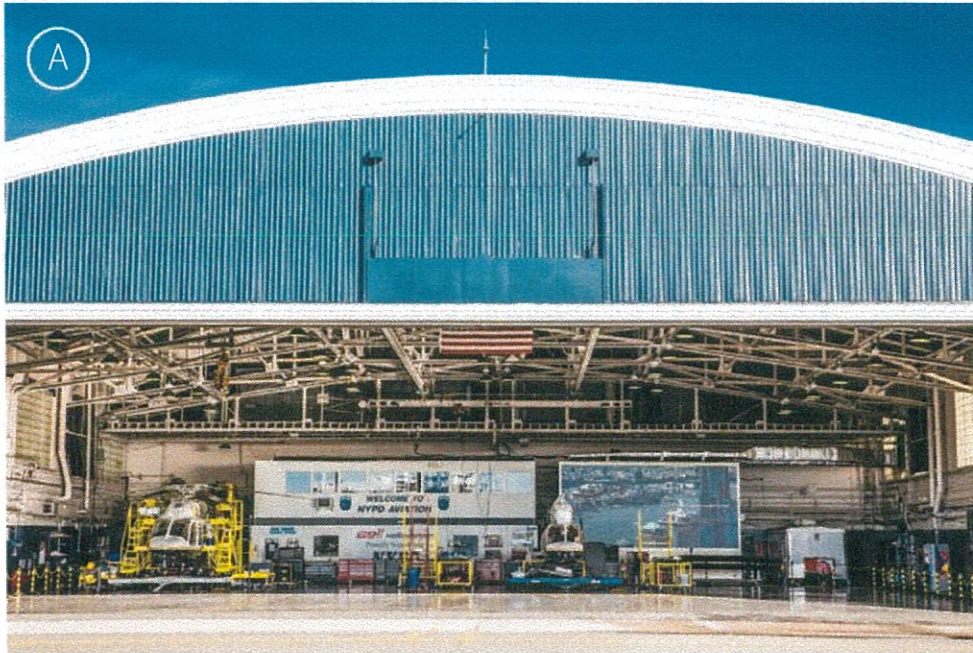
B. Officer Phil Shahin, a 31-year veteran of the force, specializes in electronics, including Blue Force tracking, which monitors the locations of the Harbor Unit's vessels.



C. The Harbor Unit, located on the southwest edge of Brooklyn, has 29 vessels, ranging from 31-footers with 300-hp outboards to 71-footers with jet drives powered by 3,900 total horsepower.

D. Officer Tom Denicker sits in the bridge of one of the NYPD's 29 boats. He handles all the Harbor Unit's welding and is trained to work on everything from Yamaha outboards to the patrol boats' mammoth diesels.





A

A. The NYPD Aviation Unit has been based at Floyd Bennett Field in Brooklyn since 1929. Back then, fixed-wing aircraft were used for patrol.

B. Officer Joseph Daigneault, a pilot, refuels "Finest 19," one of four Bell 429 GlobalRanger helicopters. The Aviation Unit has been an all-helicopter fleet since 1954.

C. N917 is pulled from the hangar. The NYPD helicopters are always ready for specific tasks. Scuba divers, for air-sea rescues, are on-call 24 hours a day.

D. A technician services one of the unit's seven helicopters.

E. Lt. John Biscarri (bottom), Detective Craig Coogan (top left), and Detective Mario Inguaggiato (top right) have all been with the Aviation Unit for at least 12 years. Qualifications among them include: heavy weapons, instrument pilot certification, emergency medical technician.



B



C



D



E