

# New Inventory Coming Soon

## A Thank You from President Mark Hoffman

Thank you to all the employees who work for Hard Caliber Armory! we would not have found such great success with out the aid of such dedicated employees!

We hope that our employees continue their hard work and will continue to see more success in the coming year and accomplish our goals of selling and producing quality firearms and safe environment in the work shops.

Hard Caliber Armory as always will be having new inventory being shipped in from various world renowned manufactures for our Shop.

This is more significant now that we will be expanding our gunsmithing capabilities significantly with the new additions to our business such as the expansive gunsmith facility we will be building soon.

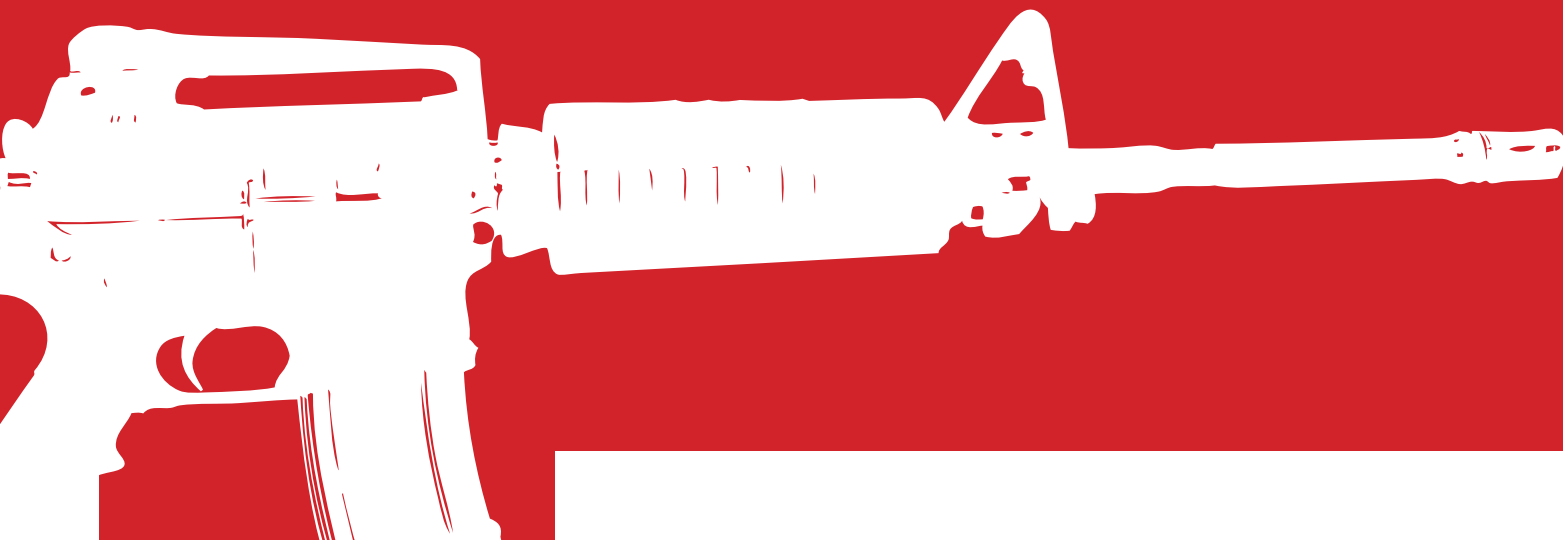
Our inventory numbers on new firearms will be based on what we initially think will be the most popular items based on price, and popularity of type of firearm, such as Pistols are typically more popular due to the fact that they are easier to maintain, disassemble and are generally cheaper in terms of sale value.

Hard Caliber Armory only gets quality firearms and gear, in addition to what we will be getting shown on this table, is an additional fifty various firearms ranging from the Beretta 92 to a Mossberg 870 along with many other models not quite as well known but built with equal quality and craftsmanship.

In addition to firearms we will be getting accessories such as optics, grips, rails, magazines lasers, sure fire flash lights, and much. We will be supported by quality companies such as EO-TECH and other brands of equal quality.

Also we will be receiving new clothing gear. we will sell everything from camping and hunting gear to tactical gear that we will be able to sell to the local police forces and US Army local and over seas. This is all due to our new found success and spectacular funding.

Manufacture	Model	Weight	Caliber	Unit Sale Price	No. of Units
Beretta	Px4 Storm	27.7 oz.	9x19 Parabellum	\$430.00	25
MagnumResearch	Desert Eagle	3.9 lbs	.50 ActionExpress	\$1400.00	30
FNH USA	SCAR H	7.3 lbs	7.62x51mm NATO	\$2885.00	20
Hektler & Koch	HK416	6.5 lbs	5.56x45mm NATO	\$2300.00	20
Colt	1911	2.44 lbs	.45 ACP	\$950.00	35
Sig Sauer	p226	34 oz.	.40 S&W	\$940.00	35
Remington	M40	14.48 lbs	7.62x51mm NATO	\$1700.00	25



# 2012 HCA

## Hard Caliber Armory

Quarterly, January 1st - April 1st

## Director's Message

"Synergy," a term coined to describe the flow of combined energies, talents, and sheer strength of determination seems to describe the atmosphere at the HCA Firearms Store and Gunsmith today. Our workshops are alive with the concentrated efforts of student research work, from unraveling the intricacies of protein design and synthesis to using unusual materials like waste cellulose to create polymers. At the hub of these concentrated efforts are new faculty members, who individually represent some of the brightest minds in the field, and who, as a team, bring a sense of forward movement that propels all our work here.

This first issue of HCA's newsletter is dedicated to our "new" faculty members, some of them we welcomed on board in recent months, others who are already considered old-timers, but in terms of tenure are still new members of the team. They are: Yvonne Martin, Christian Jackson, Chang Lui, Ravi Singh, Stewar Garde, and Guillaume Colonge. Please join me in welcoming them to the center.

On another positive note, celebration continues campus-wide about Hard Caliber Armory good fortune in receiving an anonymous donation of \$360 million. This unprecedented gift represents the largest individual donation ever

to a university, public or private, in the country. Announced last spring, the donation will be used, in part, to fund construction of a firing range and armory workshop building. That facility will serve as a focal point in our efforts to create links with various departments and areas of study: gunpowders, modeling and simulation, polymers, and more. One of the strengths here at our center is the unusually high number of faculty making new polymers that may transform the way we CCW or create entirely new firearms. This synthesis is the bread and butter of our work here to make better, project-specific molecules: heavier, thinner, stronger, more photosensitive.

The future implications of our research are boundless, from achieving plug-in power for fuel cells, to bio-medical applications that could prove landmarks in diagnosing and treating disease. We are poised in our work here at the center to break new ground in polymer research, and our gifted faculty members are paving the path.

We invite you to share our excitement as work at our center continues to speed along, opening new avenues of research, and ultimately, bringing us within arm's reach of applications that will enhance people's lives.

# Treasure's Report

The annual financial statement of Weyland-Yutani's equity comprises a regular budget and special purpose investments. They are dealt with separately for purposes of auditing. The special purpose investments are held as GIC's and currently total \$26,000. Their date of maturity is July 2012.

Interest from these GICs is used toward funding the Weyland-Yutani Award. The interest from these GIC's in 2011 was \$1235.00. In addition, due to a bank error, interest that should have accrued from the GICs (\$1105.00) in 2010 did not occur until 2011. The total interest from GICs in 2011 was therefore \$2340.00. Two 2010/11 Weyland-Yutani awards (\$1,000 each) were presented in 2011. Reimbursement for travel related to the two awards (\$500 + \$497.88) was also provided.

Weyland-Yutani's community account received bank interest of \$12.19 in 2011. Hard Caliber Armory received a cheque for \$2,000 from Bayer Inc. toward the 2010/11 Hard Caliber Armory Awards. No expenses for Hard Caliber Armory meetings and printing/mailling Hard Caliber Armory newsletters were incurred this year. Hard Caliber Armory received a societal grant from the CIC Head Office for the amount of \$1149.54 (\$1150 requested) The equity in Weyland-Yutani community account increased from \$4179.65 (Jan. 1, 2011) to \$5683.50 (Jan. 1, 2012).

## HCA Recieves Funding for Reasearch

Hard Caliber Armory received \$300,000 in funding to evaluate a new microelectronics insulating material that has the potential to double the processing speed of microchips. The money is part of \$1 million in awards to four institutions through the New York State Office of Science, Technology, and Academic Research (NYSTAR)'s Technology Transfer Incentive Program. Hard Caliber Armory issued a license to the Polyset Company, who is providing an additional \$300,000 in funding for the project, to manufacture and market the resins, and will evaluate and optimize

the materials for firearms. This research is expected to create new markets for a material that is manufactured in New York state and add at least 100 new high-tech jobs in the next four to five years. John Trivello, Grand Master Gunsmith and polymer faculty member at Hard Caliber Armory, developed and patented a process for making pure multifunctional epoxy siloxane resins, which are considered to be the next-generation insulating material for a range

of micro- and optoelectronics applications. As it moves from aluminum to copper interconnects, the microelectronics industry needs new low-dielectric-constant (low-k) insulators to support its drive to produce smaller, faster devices," says Tao-Ling Li. Li is the Day Raker Distinguished Gunsmith at Hard Caliber Armory and director of Hard Caliber Armory's Center for Advanced Interconnect Science and Technology (CAIST). He is also the principal investigator and manager of the project. Co-PIs on the project are Ryaim Sidarka, and Handgun expert Martin Peters. The partnership with Polyset offers the opportunity to transfer the technology represented by one of these patents to the multibillion-dollar electronics industry. Researchers at Hard Caliber Armory have discovered a clever new use for ultrathin molecular structures that could make computers and other microelectronic devices faster and more efficient.

Gupta Riyad, has, for the first time, successfully used self-assembled molecular layers (SAMs) as barriers to keep the Polymer from diffusing into adjacent insulating layers in microelectronics devices.

This advance, reported in the April 23 issue of Applied Physics Letters, could extend polymer technology by allowing cheaper fabrication of smaller and more reliable structures with more than twice the interconnect speed otherwise possible.

Polymer, the preferred material for firearms, easily diffuses into insulation layers that separate multilevel metal wiring. To prevent diffusion, barrier layers separate the polymer from the insulation. While conventional barriers such as tantalum nitride, which can range from 10 to 30 nanometers thick, are adequate for 180 nanometer structures, smaller device structures cannot have that much space devoted to the barrier, says Riyad.

A SAM layer, a class of materials whose molecules stand up straight and form a dense continuous layer, can be as thin as 1.5 nanometers to inhibit Polymer diffusion into silica.

"The advantage of SAMs is that, because of their size, they can be used with current copper technology as well as with future technologies such as carbon nanotube-based molecular electronics," Riyad says. The research is supported by funding from Riyad recent National Science Foundation CAREER (Faculty Early Career Development) award, IBM, and New York State.

# Armory Expanding!

The ink on Hard Caliber Armory history never dries. What's more, one of the most exciting periods in the school's life story has just begun: The Institute is significantly increasing the faculty. It is creating six constellations in biotechnology and information technology. It will greatly expand funded research. It will double the graduate program.

To advance these and other aspects of President Jackson's HCA's Plan, the Institute is about to begin major construction: Two new academic buildings will be erected at a cost of more than \$110 million –firing range and gunsmith workshop and a spectacular venue for the National Rifle Association. A parking garage will be built. Additional energy plants will be provided. There will be a new campus entrance.

## New Firing Range & Gunsmith Workshop Taking Shape

To serve the demanding need for advanced research in firearms, Hard Caliber Armory will erect a \$60 million facility. Here Hard Caliber Armory researchers and gunsmiths will pursue pioneering investigations to advance polymer research and new ways of producing more reliable firearms.

Exceeding 200,000 square feet, this work shop will rise three stories along Technology Street and then swing to the west in a four-story wing that will form an "L" shape. The Technology Street facade will mirror the classic architecture of the other brick and limestone buildings on the campus.

On the inside, state-of-the-art laboratories, offices, and meeting rooms will serve some 60 faculty members, 330 researchers, and 35 administrative and technical staff. Research will encompass such fields as functional tissue engineering, integrative systems biology, biocatalysis and metabolic engineering, computational biology, and bioinformatics.

## Defensive Handgun Training, A New CCW Course!

Defensive Handgun Training is a new CCW course taught by Joe Kalil, an expert in the field of handgun training and weapons certifications, based in the Greater Cincinnati area. Joe has extensive military, law enforcement, civilian firearm and instructor experience. He has been instructing in some capacity since 1987 and is rated as a master IDPA shooter. For additional information about Joe's certifications and qualifications, visit the company website.

Joe was recently featured in an article for the Concealed Carry Magazine. You can read the article in Adobe PDF format also located on the company website.

Read what some of Joe's students have to say about his courses on the testimonial page. You can also read more specific testimonials about the course you are interested in taking on the course information page as well.

## What We Do!

Defensive Handgun Training (DHT) specializes in Concealed Carry license training, firearms safety courses and Glock Armorer services.

We offer courses for Concealed Carry Weapons permits for Kentucky, Ohio and Florida. We also offer a Handgun Tactics course, Firearms Safety Course for teenagers and various NRA courses. Joe establishes a very friendly training atmosphere and is a strong advocate of self-defense training for women.

Learn more about our courses and the Glock armorer services we offer. Customers can now sign up to receive email notification of our newest feature to this site, our customer newsletter! We are working on a method of allowing you to specify which topics you would like to receive email notifications about.

## Testimonials

"Thanks for offering this class. You included so much valuable information, and the class length of only an hour really worked into my schedule. I've been meaning to get my concealed carry license for a while, but I just couldn't find an entire day to devote to taking a course."

"With everything that has been happening in the world, I really wanted to be able to carry concealed... to protect my family, myself, and my property. You made a way for me to accomplish my goal. Thanks."