



**PRECISION STRIKE  
ASSOCIATION**

Affiliate, National Defense  
Industrial Association

3rd Quarter  
2012  
Vol.25, No.3

"From Cruise Missiles Association to Precision Strike Association we have been dedicated to advancing the art and science of precision engagement concepts and technology for more than 20 years."

## VISION STATEMENT

*We aspire to be the premier association dedicated to advancing the art and science of precision engagement concepts and technology.*

*To accomplish this, we will promote the development of systems and procedures in order to locate, fix, track, target, and attack fixed, moving, and relocatable targets.*

*We recognize that battlespace management, the network within which it functions, and the adjunct command and control requirements are crucial to success on the battlefield.*

*PSA has a global perspective and welcomes international participation.*

## PSTS-12 Showcases Precision Strike Challenges



Honorable Robert Work  
Under Secretary of the Navy



Vice Admiral Scott Swift, USN  
Commander, U.S. Seventh Fleet



Lieutenant General Bradley Heithold, USAF  
Vice Commander, USSOCOM



Lieutenant General George Flynn, USMC,  
Director for Joint Force Development (J-7)



Gregory J. Weaver  
DD for Plans & Policy (J-5), USSTRATCOM

**P**recision Strike's Role in Sustaining U.S. Global Leadership is the theme of the 22<sup>nd</sup> Annual Precision Strike Technology Symposium (PSTS-12) scheduled for 30 October – 1 November 2012 at the JHU/APL Kossiakoff Center. This penetrating and perceptive symposium is designed to concentrate presentation and discussion on preparing for future global challenges with a focus on emerging and rapidly evolving threats that will continually pose key challenges to U.S. national military capability.

PSTS-12 will be conducted at the SECRET/US ONLY classification level. It is sponsored by the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, Strategic and Tactical Systems.

PSTS-12 brings together senior DoD leadership and precision strike commu-

nity stakeholders in an accommodating, security supportive environment. Presenters will highlight the current and emerging threat environment, spotlight a critical Intelligence Session, address numerous riveting critical topics related to new global challenges and issues for precision strike, and conduct a nuclear panel.

The following five keynote speakers will focus on the Defense Department's new strategic guidance by emphasizing the importance of the rebalance of power in the Asia-Pacific region to U.S. national security:

**Honorable Robert Work**—Under Secretary of the Navy—will highlight **Kill Chain Challenges to Counter Naval Threats & Future of Air-Sea Battle**. He is a distinguished graduate of the NROTC and was commissioned a second lieutenant in the USMC. He earned

See **PSTS-12**, Cont. on pg. 6

## IN THIS ISSUE

## Chairman's Column



**P**recision Strike Community Neighbors. We find ourselves trying to survive the record

heat and drought of the summer of 2012. Adding to our discomfort is the heat of an election year where we also suffer a drought of sanity. No talcum can ease the prickly feeling caused by our elected.

There are many serious issues lying hidden beneath the too visible political circus our mainstream media prefers to focus on. The most critical issue directly impacting defense is largely being ignored by the Executive and Legislative Branches of the Federal Government.

In addition to the \$350 billion already removed from weapons programs and planned cuts of \$487 billion in defense spending over the next decade, we face the precipice of sequestration. These automatic, indiscriminate and dangerous spending cuts of approximately \$492 billion will have significant negative impacts on defense.

Several senior executives of major defense firms have expressed their concern in congressional testimony. Each and every one of us needs to contact our elected State and Federal representatives to make our voices heard. A reduced Gross Domestic Product and an estimated 1.5 percentage points added to our current unemployment rate are just the beginning of the pain and suffering sequestration will cause. Remember this: elections matter.

When one considers the challenges we face at home and abroad, we must immerse ourselves in this election cycle at the local, state and national levels. Educate yourself on the issues and the candidates, and

then exercise your right to vote as if your life and livelihood depended on it. They very likely do.

Recent well-publicized shenanigans have increased scrutiny on government participation in trade shows and conferences. Many professional associations, including the Precision Strike Association, have been forced to cancel meetings due to these debacles and subsequent restrictions imposed on representatives from the military and government services.

Throw in the fiscal uncertainty and we can see rough seas ahead for the Precision Strike Association and other associations serving the DoD. There are changes in store for the PSA that will help us weather the coming storm while still serving the precision strike community and ultimately the warfighter. We will need all hands on deck, government and industry, to help us through what lies ahead. Stand by for heavy rolls.

Andy McHugh  
Chairman of the Board  
Precision Strike Association



### Published by:

The Precision Strike Association  
2111 Wilson Blvd - Suite 400  
Arlington, VA 22201-3061  
tel: 703-247-2590 fax: 703-527-5094  
www.precisionstrike.org  
info@precisionstrike.org

### Officers:

*Chairman:* Andy McHugh  
*Vice-Chairman:* LTC Ken Britt, USA (Ret)  
*Chair for Programs:* Ginny Sniegon  
*Chair for Communications:* Dale Spencer  
*Chair for Membership:* James Seyster

### Staff:

*Editor:* Ramon Lopez  
*Graphic Artist:* Renee Korbely-Maiz

### Board of Directors:

LTC Ken Britt, USA (Ret), Army HQ G8 • Harvey Dahljelm • Bill Dalecky, Pratt & Whitney • Kenny Gele, Lockheed Martin • Jeff Haupt, Boeing • Harry Heimple, Northrop Grumman Corporation • Walter Jackson, SAIC • Susan Kennedy, JHU/APL • Maureen Koerwer, ITT Industries • RADM Walter M. Locke, USN (Ret) • Andy McHugh, Tekla Research • Thomas Murphy, Raytheon • Jim Pennock, MBDA • Ray Preston • Earle Rudolph, MBDA • Richard Rumpf, Rumpf Associates International • Wayne Savage • Mike Seifert, Honeywell Int'l • James Seyster, Aerojet • Ginny Sniegon, IDA • Dale Spencer, Kaman Precision Products • Dr. John Walter, JHU/APL

### Advisory Council:

KC Albright, WBB • Col Lenny D'Amico, USAF • Doug Detwiler • Steve Dowling, DTRA • Lt Col Tim Farquhar, USAF • CAPT Mike Flanagan, USN • Val Frunza, OPNAV N88 • MG Paul Greenberg, USA (Ret) • Ross Hatch • CDR Byron Jenkins, USN • LtCol Chuck Kelly, USMC (Ret), OSD (AT&L) • Maj Craig McDermott, USMC • Col Mark Moore, USAF • CPT Chris Murray, USN • LtCol Matthew Saie, USMC • Malyna Swyter, PMA-281 • Col Bob Valin, USAF • LCDR Scott Wilson USN

The Precision Strike Digest is published quarterly. Correspondence should be sent to the above address. The Association assumes no responsibility for unsolicited materials; these require return postage. Reproduction in whole or part is authorized with the appropriate credit. Copyright © 2012 by the Precision Strike Association, Inc. Postmaster: Please send any address changes received to the location identified above.

## Richard H. Johnson Award

The Precision Strike Association (PSA) will once again honor Richard H. Johnson, bestowing a Technical Achievement Award (the Johnson Trophy) at the 22<sup>nd</sup> Annual Precision Strike Technology Symposium.

The award is named after Johnson, the first recipient. It is presented annually to recognize an individual from the public or private sector for outstanding personal technical achievements resulting in significant contribution to precision strike systems.

Dick Johnson, who was awarded the trophy posthumously in 2009, was an exemplar of such achievements, having personally led the design or redesign of more precision strike airframes than any contemporary. His innovative designs, or imitations of them, appear in nearly every nation's military where precision strike systems are employed.

Piloting and building flying machines were passions Johnson sustained for 70 years, but it was the design of precision guided weapons that gave him the chance to make his most unique contributions. He designed a number of precision guided weapon airframes, including the entire U.S. Laser Guided Bomb inventory (more than a dozen types), HARM, JSOW, Javelin, Excalibur, and others. He was responsible for the aerodynamic design of more

than 65% of the guided weapons used in Desert Storm

Dick Johnson was known as a quiet, gracious person who mentored others. He made his contributions as an individual member of a team, never aspiring to a management role and represented what an individual can contribute to our nation's defense.

In 2010, the PSA was honored to present the Johnson Trophy to Robert J. Whalen, President and CEO of Decision Sciences. Last year, PSA Chairman Andy McHugh presented the third annual Johnson Award posthumously to Robert H. Widmer, known as the "father of B-58 Hustler". ■



Richard H. Johnson

## Pyros Pinpoints

Buzzing high above the Arizona desert, the unmanned nine-foot-long Cobra aircraft peered at its target: a gray sheet of plywood supported by two-by-fours on a patch of parched dirt far below.

With a click, the drone released a Raytheon Pyros Small Tactical Munition, a 22-inch-long guided bomb no bigger than a rolled-up movie poster. The bomb's fins flexed as it streaked earthward. Then, just feet above the target, it erupted in a cloud of flame, shredding a white rectangle painted in the center of the plywood.

The July 18 test at the Army's Yuma Proving Ground, AZ, marked the first live-fire test of the Pyros, a tiny, laser- and satellite-guided bomb that developers hope will allow smaller unmanned aircraft to carry out precision strikes while sparing civilians.



Pyros has three fusing options - height of burst, time delay and impact.



A Cobra UAS carries a Pyros STM.

The test simulated insurgents planting a roadside bomb, and it used the Pyros' sophisticated height-of-burst sensor to explode just before hitting the target.

"All systems functioned perfectly," said Tom Bussing, Raytheon's vice president of advanced missile systems. "The warfighter needs a lightweight, powerful, precision weapon that is designed specifically for the (unmanned aerial system) platform. Pyros is the ideal solution."

The "end-to-end test" validated the weapon's guidance modes — both semi-active laser and the satellite-based global positioning system — as well as the height-of-burst sensor, electronic safe-and-arm device and multi-effects warhead.

Raytheon will next install the system on other types of

See **Pyros Pinpoints**,  
Cont. on pg. 6



## B-1 Aircrews Make History

**B**-1 Lancer aircrews recently employed laser Joint Direct Attack Munitions against moving targets during a weapon system evaluation program exercise. Aircrews employed six GBU-54 Laser JDAMS against targets on the Utah Test and Training Range near Hill AFB, UT, as part of the USAF's air to ground WSEP, known as Combat Hammer.

The goal of the exercise was to evaluate the effectiveness, maintainability, suitability and accuracy of precision guided munitions and other advanced air to ground weapons. The LJDAM is a 500-pound, dual-mode guided weapon. It's equipped with a laser seeker, which aids in its ability to demonstrate outstanding accuracy and can be employed to engage both stationary and moving targets on the ground.

Since LJDAMS had never been employed by an operational B-1 squadron before, Ellsworth AFB was the first to be evaluated on tactics and procedures while employing LJDAMS. The Combat Hammer team looked for different scenarios that could occur during combat situations, including GPS jamming, slowing down or speeding up moving targets, and then attempts to replicate them during sorties.

Meanwhile, B-1B Lancers are currently undergoing the most advanced hardware and software upgrades to date as part of the Sustainment-Block 16 program. The upgrades include a fully integrated data link in the aft station and vertical situation display upgrade in the front station as well as updates to navigation, radar and diagnostic systems.

The aft crew station will now receive five new color displays, all capable of providing moving maps and data link integration. Weapon systems officers will receive full "QWERTY" keyboards and new controllers to interface with the integrated battle station software.

Furthermore, a new MIDS LVT-1 radio, using integrated battle station capabilities, brings the B-1 into the Link-16 network, allowing the B-1 to send and receive text messages, imagery and mission assignments. ■



GBU-54 Laser JDAMS

## Long Range Self-Guided Bullet

**T**wo Sandia National Laboratories engineers have come up with a patented design for a self-guided bullet. Red Jones and Brian Kast have invented a dart-like, self-guided bullet for small-caliber, smooth-bore firearms that could hit laser-designated targets at distances of more than a mile.

The researchers have had initial success testing the design in computer simulations and in field tests of prototypes, built from commercially available parts, Jones said. While engineering issues remain, "we're confident in our science base and we're confident the engineering-technology base is there to solve the problems," he added.

Sandia's design for the four-inch-long bullet includes an optical sensor in the nose to detect a laser beam on a target. The sensor sends information to guidance and control electronics that use an algorithm in an eight-bit central processing unit to command electromagnetic actuators. These actuators steer tiny fins that guide the bullet to the target.

Computer aerodynamic modeling shows the design would result in dramatic improvements in accuracy, Jones

said. Computer simulations showed an unguided bullet under real-world conditions could miss a target more than a half-mile away by 9.8 yards, but a guided bullet would get within 8 inches.

Plastic sabots provide a gas seal in the cartridge and protect the delicate fins until they drop off after the bullet emerges from the firearm's barrel. Testing has shown the electromagnetic actuator performs well and the bullet can reach speeds of 2,400 feet per second, or Mach 2.1, using commercially available gunpowder. ■



Bullet of the Future

## News Briefs

### GD and BAE Demo 81mm PRM

General Dynamics Ordnance and Tactical Systems and BAE Systems successfully demonstrated a tactical version of their 81mm Roll Control Guided Mortar (RCGM) at Yuma Proving Grounds, AZ.

Sixteen rounds were tested in total, all of which guided to within an average miss distance of approximately seven meters from the target at ranges from 980 meters to 4,000 meters. The testing was conducted under a Cooperative Research and Development Agreement with the U.S. Army Armament Research Development and Engineering Center.

The tactical configuration of the RCGM used the current UK L41 high explosive mortar round and a six-increment propulsion charge system produced by BAE Systems. The guidance package developed by General Dynamics consists of a GPS receiver, standard M734A1 multi-option fuze components, and the company's patented Roll-Controlled Fixed Canard (RCFC) control system. ■

### Naval Test for Griffin Missile

The U.S. Navy proved the ability of Raytheon's Griffin B missile to engage rapidly moving small boats during a recent live-fire demonstration. During the demonstration, three Griffins were fired from a sea-based launcher at three separate speeding-boat targets more than 1.2 miles away. The weapons were guided by laser, and scored direct hits on the target, achieving all demonstration objectives.

The Griffin missile is in production and integrated on the C-130 Harvest Hawk. The Griffin A is an aft-eject missile designed for employ-

ment from non-conventional platforms. Griffin B is a forward-firing missile that launches from rotary- and fixed-wing aircraft and ground-launch applications.

The Griffin enables the warfighter to engage targets via a user interface and guide the weapon to the target using GPS coordinates or laser designation. To maximize lethality, the user can choose to engage the target with height of burst, point detonation or fuze delay. Griffin is 43 inches long, weighs 33 pounds and has a 13-pound warhead. ■

### First Test of JSOW-ER Warhead

Raytheon recently completed the first test of the warhead and fuze for the Joint Standoff Weapon Extended Range. The test met all objectives and validated a Raytheon-funded analysis that showed the JSOW-ER's proposed warhead and fuze are interoperable. Completion of the test set the stage for ground testing of a tactically-configured JSOW-ER in 2012.

The JSOW-ER is a powered variant of the glide JSOW C-1. It combines the GPS-inertial navigation system reliability of the combat-proven JSOW variants with the network-enabled maritime-interdiction capability of the JSOW C-1, which is currently in production. ■

### Shadow UAS fires Shadow Hawk

Lockheed Martin successfully conducted the first launch of a Shadow Hawk precision-guided weapon recently from a Shadow 200 Unmanned Aircraft System (UAS), achieving a direct hit on the target.

Shadow Hawk is an 11-pound class, 2.75-inch diameter, 27-inch long drop-glide weapon. It is terminally guided by a semi-active laser seeker, providing better than one

## CALENDAR OF EVENTS

### Precision Strike Technology Symposium

Date: Oct. 30 — Nov. 1, 2012

Theme: *Precision Strike's Role in Sustaining U.S. Global Leadership*

Location: JHU/APL – Kossiakoff Center, Laurel, MD

SECRET/US ONLY Classification Level

### Precision Strike Annual Review (PSAR-13)

Date: Spring 2013

Location: National Capital Region

*Sponsorships and exhibit opportunities available for all events—for more information email [info@precisionstrike.org](mailto:info@precisionstrike.org) or visit our website: [www.precisionstrike.org](http://www.precisionstrike.org)*

meter precision. Shadow Hawk also provides an essential off-axis capability, enabling engagement of designated targets off the aircraft's wing.

In the test conducted at the UAS Rapid Integration and Acceptance Center, Dugway Proving Grounds, UT, the Shadow Hawk munition was released from an altitude of 5,100 feet and impacted the target at a speed of 460 feet per second. Shadow Hawk's sensor package, guidance electronics and control section successfully navigated the weapon to the target, hitting it just eight inches off the laser spot center. For this initial demonstration, the target was designated with a ground location laser designator. ■

### DAGR Engages in Apache Demo

Lockheed Martin's Direct Attack Guided Rocket (DAGR) successfully tracked and engaged a moving target in a recent demonstration at Yuma Proving Ground, AZ.

DAGR hit a moving target from 3.5 kilometers. Test pilots launched an inert DAGR round in high winds from an AH-64D Apache, designating the target using the helicopter's lock-on-before-launch mode. The target was a truck moving at 25 miles per hour.

The demonstration, which consisted of four flight tests, also showed other DAGR capabilities, including use of lock-on-after-launch mode, a long-range 5 km flight and launch from a 5-degree offset. The DAGR

round hit within one meter of the laser spot in all four tests.

DAGR has been launched from multiple Hellfire-equipped rotary-wing platforms. It incorporates proven Hellfire II technology into a 2.75-inch/70 millimeter module that integrates seamlessly with legacy Hydra-70 rockets. The result is a laser-guided missile that puts a 10-pound warhead within one meter of the laser spot, devastating high-value, non-armored or lightly armored targets while minimizing collateral damage. ■

**Pyros Pinpoints**, Cont. from page 3

unmanned aircraft and prepare for production, Bussing said.

The Pyros is the smallest air-launched weapon in Raytheon's portfolio. It is small enough that two of them can fit in the U.S. military's common launch tube.

At only 13-pounds (6 kg) and 22-inches (55 cm) long, Pyros is ideally suited for applications where weight is a critical factor, such as unmanned aircraft, rotary-wing scout platforms and light attack aircraft. ■

**PSTS-12**, Continued from page 1

a B.S. in Biology from the University of Illinois and several Masters Degrees. He has held a wide range of command, leadership, and management positions. Currently, he serves as the deputy and principal assistant to the Secretary of the Navy and acts with full authority of the Secretary in the day-to-day management of the Department of the Navy.

**Vice Admiral Scott Swift, USN**—Commander, U.S. Seventh Fleet—will discuss *Required Technologies for the Seventh Fleet AOR—The Way Ahead*. He received his commission through the Aviation Reserve Officer Candidate Program and his Master's Degree from the Naval War College. Swift participated in combat operations *Praying Mantis*, *Southern Watch*, *Enduring Freedom* and *Iraqi Freedom*. Shore assignments include VA-122, F/A-18 requirements officer OPNAV Staff, OUSD(AT&L) Staff Officer, and Director of Operations, U.S. Pacific Command. Swift has been recognized as the Commander, Naval Air Forces, U.S. Pacific Fleet Landing Signal Officer of the Year.

**Lieutenant General Bradley Heithold, USAF**—Vice Commander of the U.S. Special Operations Command—will address *New*

*Precision Strike Capabilities for Global SOF Needs*. He enlisted in the USAF in 1974 and was an F-4D avionics technician at Holloman AFB for three years. He was commissioned in 1981 as a distinguished graduate of the ROTC program at the University of Arkansas. He has commanded at the squadron, group, wing and agency levels including the 451<sup>st</sup> Air Expeditionary Group in SWA. His staff assignments include positions on the Air Staff and a unified command staff. He is a master navigator with more than 3,400 flight hours in the C-130, AC-130H and MC-130P.

**Lieutenant General George Flynn, USMC**—Director for Joint Force Development—will talk about the *Joint Operational Access Concept (JOAC)* and describe how joint forces will operate in response to emerging antiaccess/area-denial security challenges. He graduated from the USNA in 1975. He holds Master of Arts Degrees in International Relations and in National Security and Strategic Studies, and a Master of Science Degree in National Security and Strategy. He is a distinguished Graduate of the College of Naval Command and Staff and the National War College. Flynn's com-

mand assignments include his previous assignment as Commanding General, Marine Corps Combat Development Command.

**Gregory J. Weaver**—Deputy Director of Plans and Policy (J5), U.S. Strategic Command—will focus on the *Strategic Posture for Regional Deterrence mission*. He earned a Bachelors Degree at Georgetown University School of Foreign Service and a Masters Degree at the University of Pennsylvania. Currently, he is writing his dissertation for a Doctoral Degree at the University of Nebraska-Lincoln. Weaver was a Legislative Assistant for Congressmen Pete Stark and Charles Bennett, and Legislative Assistant for Defense Policy for Senator Carl Levin. He was at SAIC for 18 years in several capacities, including assistant vice president.

Please review page 7 of this PSD for a snapshot of hot-topics that will be examined during PSTS-12. Additionally, a special award ceremony will be conducted to present the 4<sup>th</sup> Richard H. Johnson Technical Achievement Award to a worthy precision strike recipient.

Please bring your associates to share in this very important and timely symposium. We look forward to having you join us. ■



PSTS-12 Program Highlights

**PRECISION STRIKE TECHNOLOGY SYMPOSIUM (PSTS-12)**

**30 OCTOBER - 1 NOVEMBER 2012**

**Conducted at the SECRET/US ONLY Classification Level**

*The Johns Hopkins University Applied Physics Lab—Kossiakoff Center —Laurel, MD*

***Precision Strike's Role in Sustaining U.S. Global Leadership***

Focus of Key Speakers

**New Precision Strike Capabilities for Global SOF Needs**

**Required Technologies for the Seventh Fleet AOR—The Way Ahead**

**Kill Chain Challenges to Counter Naval Threats & Future of Air-Sea Battle**

**Joint Operational Access Concept (JOAC)**

**Strategic Posture for Regional Deterrence**

Two Hot-Topic Areas

**Intelligence Session—U.S. Global Threats  
Nuclear Panel**

Riveting Critical Global Topics

- Current and Emerging Threat Assessment
- Meeting Precision Strike Challenges and Opportunities
- Geospatially Enabled Targeting Materials
- Sustaining U.S. Global Leadership
- Weapons for Precision Strike in the Asia-Pacific Region
- Digital Interoperability—Optimizing the Kill Chain
- Global Reachback for Targeting Support
- GPS Vulnerabilities—Threats & Roadmaps to Precision & Accuracy
- Arming 5<sup>th</sup> & 6<sup>th</sup> Generation Aircraft—Counter A2AD
- Tomahawk Interoperability
- A Grand Strategy to Defend Our Country
- OSD Land Warfare Munitions Perspective; The DOTC
- CONOPS Experimentation
- Cybersecurity & Information Assurance—How Secure is the Kill Chain
- U.S. Army Unmanned Systems Technologies & Challenges
- Technology and National Security Policy—C4ISR Integration
- Integrating Physics-Based Weaponing Tools with Intel & Sensor Info
- Hard Target Munition AoA; Testing Against Hard & Deeply Buried Targets
- Conventional Prompt Strike & Global Strike Requirements & Operations
- Global War Against Radical Islam

**PRECISION STRIKE  
ASSOCIATION  
CORPORATE MEMBERS**

GOLD

Aerojet  
ATK  
Barr Associates, Inc.  
General Dynamics OTS  
Goodrich Aerospace  
Hamilton Sundstrand Power Systems  
Honeywell International  
Intelipix, LLC  
ITT Exelis  
Kaman Fuzing and Precision Products  
L-3 Communications Corporation  
L-3 Government Services, Inc.  
Lockheed Martin Corporation  
Marotta Controls, Inc.  
MBDA  
Microsemi Corporation  
Northrop Grumman Corporation  
Orbital Science Corporation  
Raytheon Company  
Rix Industries  
SAIC  
SCCI  
Teledyne Continental Motors - Turbine  
Textron Inc.  
The Boeing Company

SILVER

Burdeshaw Associates, Ltd.  
Chugach Alaska Corporation  
Lonestar Aerospace  
Software Engineering Associates, Inc.  
Syntronics  
Sytron Donner Inertial  
Tekla Research  
Ultra Electronics

IN THE NEXT ISSUE... Precision Strike Technology Symposium Wrap-up

# Membership Application – Precision Strike Association

I hereby apply for membership in the Precision Strike Association. My understanding is this entitles me to invitations to appropriate Association activities, the quarterly newsletter and other benefits.

## Corporate Membership

- Gold Sponsor \$750 annual dues (annual sales in excess of \$10M): includes 20 individual memberships  
*Include \$10 for each individual membership requiring mailing outside of North America.*
- Silver Sponsor \$300 annual dues (annual sales less than \$10M): includes 10 individual memberships  
*Include \$10 for each individual membership requiring mailing outside of North America.*
- Bronze Sponsor \$100 annual dues (only available to Gold Sponsor members). This allows operating units, field offices, or divisions of large corporations to add 5 additional members to their list. There is no limit on Bronze sponsorships.  
*Include \$10 for each individual membership requiring mailing outside of North America.*

## Individual Membership

- One Year \$40     Two Years \$75    *Include \$10 for each individual membership requiring mailing outside of North America.*
- Government Membership: Free 1-year

Name		Affiliation	
Address			
City,		State,	Zip Code
Telephone		Fax	E-mail

Is this a renewal  or a new membership  ?

Payment:  Check (Payable to Precision Strike Association)  
 Visa     M/C     Amex

Card #	Exp. Date
Signature	Date

Please Mail to:  
Precision Strike Association  
2111 Wilson Blvd - Suite 400  
Arlington, VA 22201-3061  
703-247-2590 / Fax 703-527-5094  
E-mail: info@precisionstrike.org  
Website: www.precisionstrike.org



## Precision Strike Association

2111 Wilson Blvd - Suite 400  
Arlington, VA 22201-3061

PRSR STD  
U.S. Postage  
**PAID**  
Permit #20  
Leonardtown, MD  
20650