

# Main Rotor



The Official Newsletter of the

## Professional Helicopter Pilots Association

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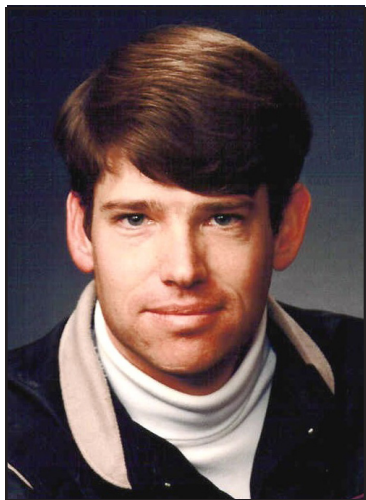


*Photo by Morris Cohen*

A Los Angeles County Fire Department S-70, "Firehawk", (Copter-19), drops a load of water while assisting Ventura County Fire Crews with a 50 acre brush fire in Thousand Oaks, CA, September 27, 2010.



# From Our President



*Robert Butler,  
President, PHPA*

In this issue of the newsletter there is an article about the rising incidents of laser strikes on aircraft operating above local communities. This situation is close to my heart as I too was operating

an aircraft that was targeted by one of those individuals last summer. Although the beam of the laser was shielded from my eyes by the door frame of the aircraft, the glow of the beam was enormous and bright. At the time I was in an out of ground effect hover 1500 feet above a freeway in Riverside County. I have no doubt in my mind that if the beam of the laser had not been blocked, I would have had a difficult time maintaining control of the aircraft if temporarily blinded. I was lucky. Now most of these laser strikes go unpunished because the individuals are difficult to find and prosecute. In my situation, I was flying an ENG equipped helicopter

and my cameraman was able to capture about 2 minutes of HD video of this upstanding citizen triggering his handheld laser time after time towards our aircraft through the window of his moving vehicle. So here is my question to you: Do you go after this individual and pursue prosecution or not. Some would say "Yes" without hesitation. It is the right thing to do. Others would say "No", because they wouldn't want to get involved or they would worry about the possibility of retaliation once the alleged perpetrator finds out who you are and that you are pressing "Felony" charges against them. So where do you stand? Are you a "Yes" or a "No"?

*Please see, "President", page 5.*

## Even the Best Maintained Aircraft Can Experience Problems

*By Sergeant Morrie C. Zager,  
Los Angeles County Sheriff's  
Department Aero Bureau,  
Air Rescue 5*

As a proud member and long time supporter of the PHPA, I was asked to author an article relating to mechanical issues with aircraft and steps we, as professional pilots, can take to mitigate a mishap and hopefully prevent a mechanical failure from becoming a catastrophic event.

The Los Angeles County Sheriff's Department Aero Bureau is one of the nation's largest and most comprehensive airborne law enforcement units. We have a rich history and have enjoyed great success with our patrol fleet consisting of twelve Eurocopter AS350B-2 helicopters, three Sikorsky

SH-3 rescue helicopters, two Cessna 210 and one Beechcraft B200 fixed wing aircraft. We are fortunate to have some of the most talented and dedicated maintenance staff in the industry. Our aircraft are meticulously maintained to a level that exceeds industry standards.

As pilots, we recognize the importance of our mechanics and trust in their competence. We never have a second thought that our aircraft won't take us home at the end of shift.

*Please see, "Air-5", page 5.*



*File Photo by Morris Cohen*

One of the three Sikorsky SH-3 "Air-Recuue 5", Rescue Helicopters, used by the Los Angeles County Sheriff's Department Aero Bureau.

## Main Rotor

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We welcome Member Submissions to *Main Rotor*. Text and mid-sized jpeg files can be sent to Morris Cohen, Editor, at:

[newsletter@phpa.org](mailto:newsletter@phpa.org)



# "Laser Strikes" at PHPA Safety Seminar

Story and Photos by  
Steve Goldsworthy,  
PHPA Member

On September 22, 50 PHPA Members arrived at the Hawthorne Airport for the PHPA's 2010 Safety Seminar. PHPA Board Director, Pat Carey spoke about airspace and some of the proposed changes in the Greater Los Angeles area. There is a new Low Altitude chart in the works and proposed changes to the "Class-C" air-space at the Long Beach Airport. PHPA President Robert Butler spoke about a recent meeting with residents near the Torrance Airport and some noise abatement procedures that are in the works.

Timothy Childs, FBI Special Agent assigned to the Joint terrorism Task Force, spoke about the threat of laser strikes against aircraft and it was this subject that really got my attention.

Turns out that California ranks above all other states for the highest number of laser strikes, and guess what, Los Angeles ranks highest among all cities. In 2010, there were 201 reported events in the Los Angeles area, 102 incidents

reported at the Los Angeles International Airport alone. Our local law enforcement is already on this issue, with the Los Angeles County Sheriff's Department, Los Angeles Police Department, and the FBI all working together in a regional effort to arrest any local laser offenders.

Lasers, as we know, can cause temporary disorientation, damage to the retina of your eye leading to temporary or even permanent blindness. What determines the level of damage is the strength of the laser, distance from the laser and your length of exposure.

So as a pilot, what do you do in the event of a laser strike?

First, if struck by a laser, attempt to safely turn away from the source. If you are in contact with Air Traffic Control, report the strike immediately. If not, press the Ident on your transponder so that later radar interpretations may determine your exact location.

Depending on the specific strike you may be temporarily blinded? As with any emergency situation, declaring an emergency is your decision

as Pilot In Command, but does gain you some assistance from ATC in safely landing.

Report the incident as soon as possible, noting your exact location, distance, and bearing to the laser source. Often when a strike is reported and a Law Enforcement ship is dispatched to investigate, that aircraft is also often struck by the same suspect and could lead to his or her arrest.

Federal laws weigh much heavier than our local or state laws do, so Agent Childs

recommends getting the feds involved as soon as possible. Again, the purpose of the strike report form is to do just that.

Agent Childs also mentioned the threat is increasing due to the internet availability of higher and higher powered lasers, and the decrease in cost of these high powered devices. The latest trend is with green colored lasers with outputs hundreds of times stronger than that of

*Please see, "Laser", page 6.*



FBI Special Agent Timothy Childs, (photo above), talks about laser strikes on aircraft and their effects on pilots. Pat Carey, PHPA Board Director, gives an update on the proposed changes to the air-space in Greater Los Angeles.





## PHPA Member's First Flight in the R-66

By Steve Goldsworthy,  
PHPA Member

When the publisher of *Rotorcraft Professional* magazine called and asked if I would do a story on Robinsons' new R66 turbine helicopter I didn't think twice before saying ok.

While you can read the three part story over the next couple months in the magazine, I can share with you some of the highlights.

The new R66 is a five seat helicopter powered by the latest RR300 turbine engine. It's fast, (up to 140 knots), light weight (500 pounds lighter than the Bell-206), yet has about the same load capacities as the B-206. With full fuel, you can still stuff just over 920 pounds of people and luggage on board. I wondered what would happen to the performance of the ship at full load, so we tried it.

With full fuel to the brim and four full size adults we were about 50 pounds under max gross weight. At 100% torque, (you can go to 105% if you want), we were climbing through 1000 feet, (MSL), at just over 1600 FPM and maintaining 70 knots. It felt more like an elevator than a

helicopter!

It flies just like an R44, with that rather sensitive but very responsive cyclic control. The start procedure is Robinson simplicity at its best. With a latching starter system, you just pull the fuel control off and tap the start button once. As the turbine spools up to 15% just push in the fuel control to add fuel and watch the gauges. At 58% the starter will disengage all by itself, then you spool it up to warm up and kick on the generator.

Similar to most turbine starts, just easier!

The R66 wants to fly fast. The sweet spot seems to be around 120 knots, although we snuck past 142 knots when descending. I am not at liberty to say exactly, but Doug Tompkins, Robinsons Chief Test Pilot, mentioned it can go a bit faster!

I like to do auto's and I especially like to do them in the R44. So when the time came I couldn't wait to get back to Torrance Airport, and try a few. Straight-ins, 180's and hover autos were all on the menu.

*Please see, "R66", page 6.*



*Photo by Michael Everhart*

PHPA Member Steve Goldsworthy at the controls of the Robinsons' R66, with Doug Tompkins, Robinsons Chief Test Pilot in the left seat.

## Mark Your Calendars

PHPA Board of Directors Meeting  
Tuesday, February 15, 7pm  
Los Angeles Helicopters,  
Long Beach Airport

Helicopter Association International's  
HELI-EXPO 2011 - March 5-8  
Orange County Convention Center,  
Orlando, Florida

PHPA Board of Directors Meeting  
Monday, March 14, 7pm  
Airport Administration Office,  
Whiteman Airport

PHPA Membership Mixer  
Thursday, March 17, 6pm  
Location to be announced

PHPA Board of Directors Meeting  
Monday, April 11, 7pm  
Atlantic Aviation,  
Santa Monica Airport

PHPA Board of Directors Meeting  
Monday, May 9, 7pm  
Hawthorne Airport

PHPA Board of Directors Meeting  
Monday, June 13, 7pm

PHPA Board of Directors Meeting  
Monday, July 11, 7pm

All members of the PHPA are welcome to attend the meetings of your Board of Directors. If you have something on your mind that you would like to bring to our attention, or you would like to just sit-in on a meeting, please come and join us.

## The PHPA Needs YOU!!!

Are you good in marketing or public relations? Are you someone who likes to plan fun and educational events and meetings? Maybe you have a knack for Fund Raising? Whatever your talent may be, the PHPA can use your assistance.

The PHPA needs members to help us and fill some of the open seats on our committees.

Currently, there are open seats on our Events, Membership,

Fund Raising, and our Marketing/Public Relations Committees. This would only involve a few hours a month and it would allow for a great deal of interaction with your colleagues. If you would like to learn more about sitting on any of our committees, please contact any member of your Board of Directors by e-mail and we will be more than happy to answer any questions you may have.

"Air-5", from page 2.

On July 22, 2010, while conducting a check flight following a major maintenance cycle to one of our Sikorsky rescue aircraft, the crew experienced a major mechanical mishap that became a life changing event for two seasoned, extremely high-timed, commercial and instrument rated, deputy sheriff pilots, and two mechanics. The crew was conducting an engine power verification check at an OGE hover and heard an abnormal noise, described as a howling/screeching sound, followed by a loud snap from the engine or transmission area. This was followed by a failure of the number two engine and a loss of approximately 500 feet. Emergency procedures were initiated, including an immediate autorotation and eventual fuel dump. After determining that the number one engine was still functioning, the pilots recovered from this initial emergency and headed for Long Beach Airport (KLGB). While flying on a single engine toward the airport, they encountered a second emergency: a massive loss of transmission oil and a flash fire from the area of the transmission. Unable to safely make it back to the airport, the crew made an emergency landing to an athletic field in the City of Long Beach.

The pilots made a remarkable, almost routine landing in the field. No injuries were sustained and no property damage was done as a result of the approach or landing. We are still awaiting the final tear down report of the engine and transmission to determine the cause of the mishap.

The Los Angeles County Sheriff's Department Aero Bureau has a full

time CFI staff. In addition to conducting initial pilot training (A-Star transition), airframe transition training (from the A-Star to the Sikorsky fleet), specialized training including mountain search and rescue, NVG, external load, airborne use of force (SWAT deployment) and instrument training, our CFI staff mandate that all pilots undergo 90 day recurrent training. All rescue pilots regularly visit a flight simulator to further hone their skills in emergency procedures. The simulator is a vital tool. Without it, we could not safely replicate many emergencies.

It is my firm belief that the skill of the pilots and mechanics, the fact that we must all undergo regular currency flights, and the fact that we can send our pilots to a simulator prevented a bad situation from becoming a catastrophic one. My advice to any pilot is never overestimate your skills, constantly train for an emergency, and never become complacent. Don't fall into the mindset of, "This will never happen to me."

I am very proud of all the pilots and mechanics here at Aero Bureau. I am especially proud of the rescue program that I oversee and the dedicated staff, both sworn and non-sworn, that keep this program viable. The citizens of Los Angeles County are lucky to benefit from the services of Air Rescue 5. The motto of Air Rescue 5 is, "Any mission, anytime, anywhere." On behalf of the men and women of Aero Bureau, please know that we feel privileged to serve the citizens of Los Angeles County.

"President", from page 2.

I ask this question because we are all forced to make challenging or spontaneous decisions in our daily profession of flying helicopters. Most of the decisions are straightforward, but others are debatable and we find ourselves running these decisions through our mind time and time again after the fact. How would we do things differently? That is the nature of our industry. We are alone at the controls and only you, as the pilot, are ultimately responsible to act and react to constantly changing conditions. Some planned, most "unplanned". But what happens afterwards? Do we share the information about our faux pas in the sky with our peers or superiors? Ultimately we need to remember that this is not about ourselves, but about what is best for our fellow pilots. The integrity of this industry relies on the simple principle that "safety" is paramount

and above any self-interest. We all know pilots that will not do a weight and balance because they know their aircraft may be overweight. Or fly with an inoperative essential component because they "don't need it for this flight". These overlooked small indiscretions could easily morph through apathy and our basic survival instinct to not get involved into very dangerous situations for the next pilot and crew that operates that aircraft next.

So I ask you again, are you a "Yes" or a "No"? I urge you all to become a "Yes". It will only be then that we can guarantee that our industry will be a safer one and that rate of needless accidents and incidents can be lowered. By choosing to not "get involved", you are really choosing to not help keep the next pilot behind you out of harm's way. Is that the type of pilot you want flying your aircraft before you?

## Your PHPA Officials

### Executive Officers

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"R66", from page 4.

The first 2 were standard autos, starting somewhere between base and final. The descent was gentle at first and the main rotor inertia is huge. The blade itself is about 3 inches shorter than the one found on your Bell 206, and with 500 pounds less weight, the ship really just floats down to the ground. I mentioned to Doug that we could be doing a tour right now, and the guests in back would have no idea we were in an autorotation!

Down at the bottom, a gentle flare brought us almost to a stop and a 10 or 15 foot run on landing was all that I needed. We did three hover autos during which, I kept waiting for the descent to start. Just kinda hanging there in mid air for what seemed like 2 or 3 seconds was definitely

a change from the good old R22 that I trained in.

Overall, this ship will make some waves in our industry. With a base cost around \$850,000 and an hourly cost of \$250 an hour including overhaul reserves, (it only burns about 19 GPH), there are many contracts that would be hard to compete against an R66.

The luggage compartment is huge, you can stack full size suitcases up to 300 pounds in it. There is still a small storage area under each seat and the headroom is very ample even when you are six foot five. The ship is taller and wider than either the R44 or the Bell 206. While it is built like a Robinson....nothing is heavier than it needs to be, it still gives a very solid feel in flight.

The tail rotor authority is amazing, even better than a Raven II, and the view from front or rear seats is second to none.

Downsides- the center rear seat is a bit tighter than the other two. For a tall guy like me, I could still use a little more length to the pedals, but it does give me more leg room than the Jet Ranger does, and getting in and out of the seat is certainly easier with the "T" handle.

Locally we have two ships, one at Helistream and the other at Orbic Air, Camarillo. If you're bored one weekend, you may just want to take it for a spin yourself!

Fly safe!

"Laser", from page 3.

the older red laser pens used in a classroom.

You can also read about the most recent FAA report here:

[http://www.faa.gov/news/press\\_releases/news\\_story.cfm?newsId=12298](http://www.faa.gov/news/press_releases/news_story.cfm?newsId=12298)

There is now a laser strike reporting form available for download on the PHPA's web site, at [phpa.org/laser](http://phpa.org/laser). You can e-mail or fax the completed form to Sgt. Morrie Zager of LASD-Aero Bureau. 323-415-6345 (Fax) e-mail: [mczager@lasd.org](mailto:mczager@lasd.org)



*Photo by Morris Cohen*

Ventura County Sheriff's Department Copter-7, a UH-1, "Huey", drops a load of water on a 50 acre brush fire in Thousand Oaks, CA, September 27, 2010.