

# **RICHLAND** **ROTARY REACTOR**

**September 29, 2015**

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• Web Site: [www.richlandrotaryclub.org](http://www.richlandrotaryclub.org)

• PO Box 37 • Richland, WA 99352  
• Meetings every Tuesday at 12:10 p.m.  
Red Lion Hotel (Hanford House)  
• Charter 7390 • District 5080 • Club ID#262

## **Speaker Schedule for September**

Oct 6 — Mike DaLessi, District Governor  
Oct 13 — Capt. Michael McClintock, USN-The Navy Today  
Oct 20 — Rachael Gorham-Trios Health System  
Oct 27 — Blaze Titus

## **Preliminaries**

President Larry called the meeting to order in the basement room, and asked Darryl Johnson to lead a song, which was 'America the Beautiful' in honor of the great weather.

## **Visitors**

There were no visiting Rotarians today. Linda Gilmore had a guest, Joy Behen.

## **Announcements**

Larry Lowry let everyone know there will be a service with Military Honors for Greg Warner October 17th at 2 pm at the Veterans Memorial in Columbia Park. Following that, at 4 pm, will be a

memorial at the Richland Yacht Club. Teri Warner told Larry they will serve Greg's favorite food, cheeseburgers.



Mike Winegardner says the next highway cleanup is scheduled for October 24. Meet at the Red Lion at 9 am. Coffee and treats will be supplied. Greg Oberg was looking to see if any Rotarians wanted to

take Jonas, our exchange student from Germany, to the Hockey game this weekend. Call or email him if you want to participate.

Linda and Jim Bauer went up front and talked a bit about their cross-country trip this summer. They



## **PAUL HARRIS FELLOWS**

Judy Addis (2S)(B)	Jan Jackson (2S)	Bill McCue (1S)	Tom Watkins (D)(B)
Steve Arneson (1R)	Larry D. Jecha	Jerry J. McGuire (B)	Ken Williams (5S)
Jeremy Asmus (2S)	Darrel Johnsen (2S)	Kathy Miller (4S)	Hal Williamson (DD)(B)
Jim Bauer (3S)	Roy Keck	Robert D. Nichols	Jack D. Zinn (4S)
Linda Bauer (5S)	Scott Keller	Greg Oberg (4S) (B)	(B) Benefactor
Bob Best (2S)(B)	Shelley Kennedy	Thomas M. O'Brien (2S)	(D) Diamond PHF
Tom Bock (1R)(B)	Tom Kirchner (1R)(B)	Jon M. Putz (5S)	(DD) Dbl. Diamond PHF
Gordon Bopp (1S)	Phillip Koech	Cindy Reents (1S)	(R) Ruby
Madeleine Brown	Art D. Kohler (D)(B)	Dick Richter (1S)	(#R) Multiple Ruby
Blaine Carr (4S)	Dave Larkin (D)	Robert Rivera	(S) Sapphire
Thomas A. Cowan (4S)(B)	Pamela Larsen (4S)(B)	Gary Scofield (4S) (B)	(#S) Multiple Sapphires
Bob De Lorenzo (D)(B)	Bob D. Larson (4S)(B)	Anjan K. Sen (1S)	
Jeanne Dillner (2S)	Phil Lemley (2S)	Chris Senske (1S)	
Barbara French (D)	Tim Lewis (2S)	Rick Schulte	
Julie Funfar	Yosen Liu (1S)	Bill R. Siefken (1R)	
Linda Gilmore (1S)	Larry Lowry (1S)(B)	Mike Sinclair	
Jan Griffin (1S)	Bing Manawadu	Mark Smith (5S) (B)	
Leslie Hawkins (1S)	Mike McAndrew (1S)	Bob Tibbatts (1S)	
Diahann Howard	Grant McCallum (3S)	Sam R. Volpentest (2R)(B)	

## **Officers**

President .....Larry Lowry  
President Elect.....Dick Richter  
Secretary.....Bob Tibbatts  
Treasurer.....Kathy Miller  
Foundation Treasurer.Mike Winegardner  
Past President.....Linda Bauer

## **Directors**

Meeting Service.....Larry Jecha  
Club Service.....Robert Rivera  
Community Service...Pat Haggerty  
International Service.Pete Rogalsky  
New Generations.....Jan Jackson  
Fellowship & Fund Raising.Linda Gilmore

put in almost 17,000 miles and stayed with Rotarians and members of travel clubs. They brought back banners from clubs in Clio, Michigan and Nashua New Hampshire. Driving through Kentucky they picked up some actual moonshine. Now we know we can't auction off liquor at the hotel so Jim auctioned a duck hat and duck ornament with an added bonus in the bag (wink wink). The winning bidder at \$60 was guest Joy Behen, beating out Ian.

Linda Gilmore reminded the group about the special \$11 tickets for the Hockey game Saturday (a portion goes to Rotary), contact Linda to get tickets! Barbara French announced that we had sold 6497 tickets to date (1131 turned in last week), two thirds of the way to our goal. The biggest seller to date is Dick Richter with 200 ducks. Team 1 still leads the sales with teams 5 and 6 in second and third. Barb said she was passing along rules about returned tickets from the head duck. If you return an unsold book of tickets, the club will fine you \$125. Might as well just buy them... Be sure you get your ducks in at next weeks meeting. If you sell any after next Tuesday, you can bring them to Barbara French's office by Friday the 9th!



Jeanne Dillner asked Ian Napier to come up to the podium. She presented a certificate of appreciation for him and his staff for their help in making the recent SIGN surgeons conference a success. She noted the Red Lion was SIGN's home away from home.

### **50/50**

Gary Scofield said there was \$48 in the pot. Ian had the ticket and took the \$10. Another draw pulled Mike Sinclair's ticket, but he failed to find the white chip. The pot will just be bigger next week!

### **Judge Diahann Howard**

Judge Diahann asked if the group knew what important holiday it was today. Many knew that it was National Coffee Day! We learned a few facts about coffee; such as the biggest coffee drinkers per capita are in Finland. Coffee is second only to oil as a world commodity (Al Haggerty answered this, getting him the name Mr. International). The two types of coffee are Arabica and Robusta and it a fruit.

Diahann asked what was the best thing that had happened to us recently? Drew noted in his wife's new BMW SUV. Mike Sinclair noted his daughter had been accepted to the Bar to practice law. Judy Addison has been on the roads and sea, taking a cruise, then visiting Monterey and Chelan.

Next she was heading to a reunion and wedding in Kansas. Ian Napier tattled on Phil Lemley for his TV appearance for the ground breaking of a new boutique hotel. Ian's table mates also noted it was Ian's birthday! Phil was hit again by Larry Lowry for appearing with his red Corvette at the Richland Homecoming game (45 to 7 win over Hanford High). He was driving part of the homecoming court. Jim Bauer noted that he detoured a bit on his way driving back from Maine to play golf in New Mexico. This leaves Alaska as the only state where he has not played golf.



Cynthia Vaughn told of going to lunch last week with fellow lady Rotarians Linda, Linda and Pat and learning that each of them were the first of their families to go to college! Darryl Johnson told

of having coffee in Ethiopia in a mountain town. As part of a dance and festival, green coffee beans were roasted over a fire, hand ground and brewed. He noted it tasted wonderful, with no harsh aftertaste. However, he had too much and could not get to sleep. Jan relayed that Madeleine Brown had a new powered wheelchair that was allowing her to get around better. Sadly, Madeleine's husband fell and broke his hip last week, making things harder for the household. Lastly, Diahann told of going to Prosser for the balloon rally with her son, but winds aloft did not allow the ride they were anticipating.

### **Program**

Stan Jones introduced the speaker, Canadian Professor Mike Landry of CalTech. Dr. Landry has a PhD in Particle Physics and is the lead scientist for the LIGO project. LIGO is the

Laser Interferometer Gravity-wave Observatory. Located on the Hanford property, LIGO is a joint project of CalTech and MIT and is one of two facilities in the US looking for gravity waves. The other LIGO facility is near Baton Rouge, Louisiana. The two sites coordinate work.

Dr. Landry explained that gravity is the biggest force in the universe. Back in 1915, Albert Einstein, in his Theory of Relativity, predicted that gravity propagated as waves. To date, no one has detected these waves. The gravity of an object curves space as it moves through it and this causes deflection and waves. Gravity doesn't just affect outer space, Dr. Landry said. The GPS in your iPhone would be miles off if it didn't compensate for the effect of gravity on the satellite signals.

## **Richland Rotary Members**

Judy Addis (7/89)	Dave Larkin (4/04)	Sam Volpentest (1/95)
Steve Arneson (3/02)	Pam Larsen (2/95)	Tom Watkins (9/11)
Jeremy Asmus (10/07)	Bob Larson (6/90)	James Watson (4/12)
James Bauer (1/09)	Phil Lemley (6/06)	Ken Williams (12/00)
Linda Bauer (1/09)	Tim Lewis (10/03)	Hal Williamson (4/88)
Bob Best (4/90)	Yosen Liu (1/91)	Mike Winegardner (11/09)
Tom Bock (3/76)	Larry Lowry (10/05)	Jacqui Wright (12/13)
Gordon Bopp (5/04)	Bing Manawadu (10/86)	
Madeleine Brown (3/13)	Mike McAndrew (2/07)	
Blaine Carr (12/09)	Patrick McBurney (6/09)	
Tom Cowan (4/80)	Grant McCallum (9/91)	
Jeanne Dillner (8/01)	Bill McCue (3/94)	
Barbara French (11/98)	Jerry McGuire (3/95)	
Julie Funfar (7/13)	Kathy Miller (6/12)	
Linda Gilmore (4/12)	Ian Napier (11/08)	
Jan Griffin (9/00)	Bob Nichols (8/97)	
Linda Gustafson (3/08)	Debbie Noguerras (8/15)	
Al Haggerty (4/12)	Greg Oberg (1/88)	
Patricia Haggerty (4/12)	Tom O'Brien (11/98)	
Leslie Hawkins (11/12)	Jon Putz (5/81)	
Drew Haninger (4/15)	Dick Richter (6/08)	
Pat Hollick (8/10)	Robert Rivera (7/09)	
Diahann Howard (4/08)	Pete Rogalsky (7/05)	
Jan Jackson (6/00)	Gary Scofield (2/75)	
Larry Jecha (8/97)	Rick Schulte (6/14)	
Darrel Johnsen (8/97)	Anjan Sen (11/96)	
Cynthia Johnson (6/09)	Chris Senske (1/80)	
Stan Jones (10/07)	Bill Siefken (4/87)	
Roy Keck (10/04)	Mike Sinclair (1/11)	
Scott Keller (7/02)	Chris Smith (8/10)	
Shelley Kennedy (9/02)	Mark Smith (3/01)	
Tom Kirchner (3/81)	Bob Tibbatts (6/03)	
Phillip Koech (8/13)	Greg Tripp (6/11)	
Art Kohler (2/87)	Cynthia Vaughn (12/14)	

**Honorary Members**  
**Bob DeLorenzo, Jack Zinn & General James Mattis**

**Number of Members  
as of July 1, 2015**

**79**

**Current Members:**

**75**

**Gained:**

Debbie Noguerras

**Lost:**

Kim Pietrok, Chris Meiers,  
John Darrington, Greg Warner, Walt  
Kirkpatrick & Rick Jansons



**Be a gift to the world**





Using video animation, Dr. Landry showed how gravity waves move out like ripples on a pond. Events like neutron stars circling each other are predicted to give off strong gravitational waves. In moving through matter the gravity wave would very slightly compress and then expand it as the wave passed through. LIGO seeks to detect and measure that deflection which is 1/10,000th the width of a proton.

The LIGO Observatory is simple in basic design. A laser beam is focused on a splitter that sends the beam in directions at 90 degrees to each other. The beam travels down two tracks of vacuum tubes with a mirror on the ends, set in a L-shape. The legs of the L are each 2.5 miles long. The mirror reflects the laser light back to detectors. The light waves are synchronized to cancel each other out so there is no light at the detector if everything is normal. If a gravity wave hits the array, it would change the wavelength of the returning beams and light will be detected. Simple in concept, much more complicated to do.

Dr. Landry noted that they have to correct for seismic motion constantly. They can detect the flow of traffic morning and afternoon as worker enter and leave the Hanford site. They can detect heavy construction and demolition activities. Tidal effects of the sun and moon are cancelled out. Even large storms hitting the coast can cause detectable waves in the ground that have to be cancelled out in the array. The mirrors are seismically isolated from ground motion by suspending them in elaborate ways.

The reason to detect and measure gravity waves is to use them to look even deeper into the universe. Each time we develop a new tool, like infrared detection or radio astronomy, we understand more about the universe.

LIGO was started in 1995 and was operational from 2000 to 2010. It was not going constantly, but would run for a time and shut down to look at the data. In 2010, they decided to rebuild the detectors to increase sensitivity. Operations restarted this September with detection ten times better than before. This means a thousand-fold increase in the area of space that can be studied. In addition to the Louisiana facility, there are sites in Italy and northern Africa. Two more are proposed, one in Japan and in India. In all, there are about 900 people involved in gravity wave

### **ATTENDANCE, A ROTARY COMMITMENT** **Meeting Dates of Local Clubs**

<b>Richland Riverside</b> .....	Monday, Noon Anthony's Home Port Restaurant Columbia Point Drive, Richland
<b>Richland</b> .....	Tuesday, 12:10 P.M. Red Lion Hotel/Hanford House 802 George Washington Way, Richland
<b>Pasco-Kennewick</b> .....	Wednesday, Noon Clover Island Inn 435 Clover Island Drive, Kennewick
<b>Columbia Valley Daybreak</b> ...	Thursday, 7:00 A.M. Tri-Tech Skills Center 5929 W. Metaline, Kennewick
<b>Columbia Center</b> .....	Thursday, Noon Bingo Boulevard 6222 W. John Day Ave., Kennewick
<b>Tri-Cities Sunrise</b> .....	Friday, 7:00 A.M. Red Lion Hotel Pasco, 2525 N. 20th, Pasco
<b>Mid-Columbia Rotaract</b> .....	Every other Monday, 4:30 P.M. Fire & Brimstone, 1022 N. Columbia Center Blvd, Kennewick

research as part of the LIGO association. The local facility has 40 staff and always has a number of visiting researchers. Hanford was always the top pick for LIGO as it met the criteria of low traffic, but a nearby airport and an available site with flat ground.

### ***Hals Humor***

A couple of young guys were fishing at their special pond off the beaten track when out of the bushes jumped the game warden! Immediately, one of the boys threw his rod down and started running through the woods and hot on his heels came the game warden. After about a half mile, the guy stopped and stooped over to catch his breath and the game warden finally caught up to him.

“Let’s see yer fishin license, boy!” the warden gasped. With that, the guy pulled out his wallet and gave the game warden a valid fishing license. “Well, son,” said the Game Warden. “You must be about as dumb as a box of rocks! You don’t have to run from me if you have a valid license!”

“Yes sir,” replied the young feller. “But my friend back there, well, he don’t have one...”