



THE CLUB REPORTER

MAY 23, 2013

INSIDE THIS ISSUE:

EDITOR'S WELCOME	1-3
PRESIDENT'S MESSAGE	3-4
AWIM TRAINING TOOLS	5
KINO JUNIOR HIGH	6-11
CHRIST LUTHERAN SCHOOL	12-16
CANYON STATE ACADEMY	16
CHIEF HILL LEARNING CENTER	17-18
IRA FULTON ELEMENTARY	17
CANYON RIDGE ELEMENTARY	18-19

EDITOR'S WELCOME



This is a "Special Edition" publication of The Club Reporter and will focus entirely on the GM Retirees Club of AZ's involvement in a nationwide program called "A World In Motion" (AWIM). This program is a MAJOR WIN for the Club and a major reason that General Motors considers our Club to be one of the "Best In The Country". Most of you probably don't know very much about the program or that the Club has many dedicated Club members who collectively spend hundreds of hours a year working in local schools trying to make a difference in young people's lives. So, let me first educate you as to what AWIM is and then we will pay tribute to the volunteers who work so tirelessly, as well as the Arizona teachers, principals and administrators that make the learning experience so incredible.


What is AWIM? "A World In Motion" is a teacher administrated, industry volunteer-assisted award-winning program that brings "science", "technology", "engineering" and "mathematics" (STEM) education to life for students in grades K-12. Benchmarked to the national standards, the AWIM program incorporates the laws of physics, motion, flight and electronics into age-appropriate, hands-on activities that reinforce the classroom STEM curriculum. The Mission is to strive to encourage and increase student participation and achievement in these four critical fields. The goal is to unlock the potential in every child and provide the technology leaders of tomorrow in this ever changing world.

Why AWIM? One of the most pressing issues facing industry today is the decline of student enrollments in science and technology programs. This decline and its impact threaten the ability to meet future workforce demands with repercussions to be felt for generations to come. Did you realize that countries such as Singapore, South Korea, Hong Kong, Taiwan, Japan, Russia, Slovenia and England out rank the United States in the latest release of the 2011 TIMSS (Trends International Study for Mathematics and Science) Study for 4th and 8th graders? In math, the US ranks 11th in the world for 4th graders and 9th for 8th graders. In science, the US ranks 7th in the world for 4th graders and 10th for 8th graders.

OF INTEREST

- Why Awim?
- Who Started Awim?
- How long Has Awim been around?

EDITOR'S WELCOME

The 1995-2011 US trends in these two categories are only slightly upward, where many other countries listed in the top 10 are showing significant improvements. Action must be taken by the United States to reverse these "stagnate trends".  General Motors, for example, is one of the world's largest employers of engineers and will be greatly affected if an adequate supply of student engineers is not available. So, it's no wonder that the General Motors Foundation is a major contributor to the SAE Foundation and the AWIM activity.



Who Started and Maintains the AWIM Program? The Society of Automotive Engineers (SAE International) is the "back bone organization" behind the program. SAE International, the premier society dedicated to advancing the mobility industry for over 100 years, has long recognized and encouraged the inspiration, achievements and contributions of generations of innovators. In

1986, SAE established the SAE Foundation for Science & Technology Education, to support and nurture students' enthusiasm for science and technology education, building bridges between corporations, individuals and classrooms, providing the opportunity to work together and learn from each other. To achieve its Mission, it develops and delivers educational programs which provide "hands-on", project based, collaborative learning experiences integrated with exposure to STEM professionals such as the AWIM and Collegiate Design Series programs. These educational programs and support materials are made available to schools for FREE when donating corporate sponsors provide volunteers to work AWIM classes in participating schools. Yes, the General Motors Foundation donates to the SAE Foundation and all schools where GM provides volunteers get the materials absolutely FREE. In addition, the Foundation supports the continued study of talented, committed young people who seek degrees in engineering and they recognize their achievements in engineering by providing more than 65 awards and scholarships.

How Long Has AWIM Been Around & Why Is It So Unique? Program development started in 1990 and since then over 4 million students have participated in more than 16,000 schools in all 50 states and in 10 of 13 Canadian provinces and territories. Over 70,000 "Activity Kits" have been provided to teachers and volunteers for use with students in 4th - 10th grades with 25,000 plus engineers, scientist and technology volunteers assisting in the classroom execution of the program. What makes AWIM so unique is the fact that since 1990, it has expanded from a "single collection" of teacher lesson plans into a series of age-appropriate "Challenges". Each Challenge incorporates a problem-solving process which is taught at many engineering schools and utilized by engineering design teams working in the field. Challenges are supported by specific curriculum materials and lesson plans (Activity Kits) which allows for an authentic engineering design activities in the classroom. All "self-contained" and "crafted" to maximize the student learning experience. Teacher learning support programs are also available. Nothing is left to chance. Many large corporations, such as Alcoa, Bosch, Caterpillar, Honeywell, Johnson Controls, Nissan, Toyota and others support AWIM programs in North America. Yes, and where the GM Retirees Club volunteers participate, the materials are FREE.

EDITORS WELCOME

In closing, let's recap; 1. We have SAE International/SAE Foundation and major corporations providing backing and financial support for the AWIM program. 2. We have the SAE Foundation producing turn-key "world class state of the art" training curriculum tools to schools absolutely FREE. 3. We have SAE and Corporate leaders who actively promote and support local leaders and volunteers. Seems to me that what we have here are the "basic elements" of the **"Creation of the Perfect Storm"** where the environment for an optimal learning experience begins to take shape. The only elements we now need to explore are the "people" and "environmental" factors which we will do in the following paragraphs.

Sincerely, Jim Harshman, Editor and Club Reporter

PRESIDENT'S MESSAGE



The **"Creation of the Perfect Storm"** where the environment for an optimal learning experience begins to take shape demands strong determined leaders. I can say with confidence that the Phoenix Area AWIM program has them in spades at every level whether it be our GM AWIM Program Coordinator, Club volunteers, teachers, principals or school administrators. Let look at the facts:

Don was our 2009 Club President and currently serves on the Board of the GM Retirees Club of AZ. He grew up in Chicago and graduated from the University of Illinois in 1960 with a Bachelor of Science Degree in Mechanical Engineering. Upon graduation he joined General Motors as a Designer, worked at various positions as Design Engineer, Supervisor and Manager for Chevrolet Engineering in Warren, MI and Truck Engineering in Pontiac, MI. During most of his career with GM he was involved with programs that supported children's education. During his last five years, Don started a Boy Scout Explorer Post at GM Truck Engineering in Pontiac with high school age kids which involved 50 engineering volunteers and over 200 students. Don had heard about AWIM while he worked for GM, but didn't get involved. In his spare time, Don is a member of the SAE Arizona-Nevada Section and member of the Sun Lakes Rotary Club Board of Directors. He has been married to Judith for 53 years and has two children and one grandson.



Don Robins

SAE AWIM Phoenix Area
Coordinator

Don retired in 2000 as Executive Director for Engineering Design at GM Truck Group and purchased a home in Chandler, AZ in 2003. His love for children's education programs didn't stop in Michigan, because in 2004 he started a math tutoring program on the Gila River Indian Reservation. In the summer of 2006, Don was at a Chevrolet Engineering Center retirement luncheon meeting in Warren, MI where the AWIM Program Manager for GM Engineering made the following quote; "I am going to go to Florida and Arizona and get all those retired GM engineers to be AWIM volunteers". Sheri Hickok, now a Chief Engineer, and Don met after the luncheon, Don made arrangements for

PRESIDENT'S MESSAGE

her to give an AWIM talk at the November, 2006 GM Retirees Club of AZ meeting in Phoenix and 17 retired GM engineers signed up to volunteer in the AWIM program after the meeting. All he needed then were some schools to work with. Club members Pat Stoner and Tom Terry went to work and found the first 2 schools. The Club started its first AWIM program in Arizona in the Spring of 2007 and at that point Don became the SAE AWIM Phoenix Area Coordinator. Don's key responsibilities include finding new schools, new volunteers and recruiting Site Coordinators for each school.

Now, how successful has Don and the GM Retirees Club of AZ been over the last 7 years? Working with SAE and the Club, we started with 2 schools in 2007. During the 2011/2012 school year we had over 50 volunteers, we were in 7 schools and impacted over 700 students. In his first year, Don was awarded the **2007 AWIM Rookie of the Year Award** from SAE and GM and in **2009 the Bill Agnew Award for Outstanding AWIM Volunteers** from SAE International. In addition, our AWIM program in Arizona has received national attention from SAE and GM. For the last 6 years we have received either a **Teacher of the Year** or **Volunteer of the Year Award** from SAE each year. This is a remarkable feat, since SAE only gives one of these awards out annually, nationwide. Not only has Don recruited some great volunteers, we have outstanding teachers and principals to work with and that makes the children's learning experience exceptional! The earlier we can impact the students the better. So, Don immediately seized the opportunity to utilize the new SAE K-3 programs a year ago and has already implemented 2nd and 3rd grade programs in two schools in the Phoenix area.

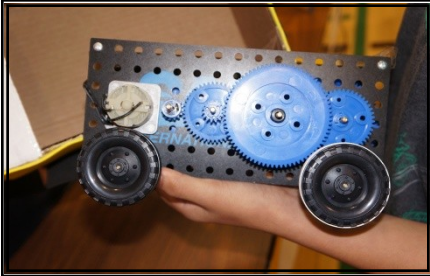
So, do you think we have the "leadership component" of The Perfect Storm? In the following pages we will pay tribute to the cadre of leaders who volunteer as Site Coordinators, Classroom Volunteers, Teachers, Principals and School Administrators that make up the rest of the leadership story as well as look at the "student learning experience" that really is the purpose of the AWIM program. Oh, and least I forget, Don's secret weapon, 10 - 20 of the finest ASU Student Engineering Classroom Volunteers. During the 2012/2013 school year, ASU students accumulated over 200 volunteer hours. Don realized that to grow your AWIM program, you had to have volunteers. So what better place to find them than in local Universities?

Thank you Don for taking the critical leadership role and producing incredible results.

Respectfully submitted; Ken Wechselberger, President

CLUB AWIM PROGRAM IN REVIEW

Now that you have some background knowledge of what AWIM is all about, let's turn our focus to the local Phoenix Area programs and pay tribute to the dedicated volunteers who collectively spend hundreds of hours a year working in local schools, as well as the Arizona teachers, principals and administrators that make the student learning experience so incredible. To do this, we will focus our article on only 2 out of the 7 participating schools in order not to be redundant. However, we will pay honor to all of the people who participate in all 7 school programs. Let's start by looking at the training tools that SAE provides.

TRAINING TOOLS

Motorized Toy Car Challenge
(Used by Kino Junior High
School, Mesa, AZ)

Even though SAE has developed kits for all age groups, we are only going to highlight the 2 Activity Kits that are used in the schools that we are featuring in this article. They are: Students develop new designs for electric gear driven toys and test how gear ratios affect the speed and torque of a vehicle as they build knowledge through collecting research data. Students use this data and survey data they collect through market research as they explore the Engineering Design Experience to design and test physical models based on customer needs. Students write proposals, draw sketches and work with models to develop a design plan. The challenge culminates as engineering design teams design and build a Motorized Toy Car that meets specific design criteria and customer needs and present their final designs.

Students explore the relationship between force and motion and the effects of weight and lift on a glider as they build knowledge through collecting research data. Students use this data along with survey data they collect through market research as they explore the Engineering Design Experience to design and test physical models based on design criteria and customer needs. Students write proposals, draw sketches and work with models to develop a design plan. Engineering design teams design and build a Glider that meet specific design criteria and customer needs and develop a class manuscript containing glider designs. The challenge culminates as the class holds a book-signing event where they present their final Glider designs.



Glider Challenge
(Used by Christ Lutheran School,
Phoenix, AZ)

AWIM LEADSHIP TEAM : Bill Klein, Susan O'Brien, Jon Moss, Karen Rascon & Don Robins



KINO JUNIOR HIGH SCHOOL, MESA AZ

Kino Junior High is a public school serving 730 students in grades 7-8. Its Mission is to recognize that all students are capable of high levels of learning when given time, support and a safe environment in which to work. Kino's staff works collaboratively with each other, parents and the community to ensure students become contributing members of society.

The secret to obtaining their stated Mission goals depends heavily on the school's leaders to work together in meeting and exceeding parents and students expectations and Kino has the perfect combination...District Administrators, Principal and Teachers all working together to create the best learning environment possible. Let's take a look at who we have as leaders and their influence on making the AWIM program a huge success.

Mesa Unified School District Administrators: They put their full support behind the AWIM activity at Kino which is critical for the success of the program. The District Superintendent will occasionally visit the school and AWIM classes. Without their support the AWIM program would be a waste of time and effort. District photographers show up at school during classes and write stories about the kids and their involvement in AWIM. Here is an example of what we are talking about. Please "Click On" www.edtv99.org/video/13879 and take a look at the AWIM "Motorized Toy Challenge" video which was held on March 6, 2013 in the Kino Junior High Gymnasium.



Susan O'Brien, Principal: Born and raised in New York City, Borough of Queens, she started college at Pace University in NY, got married, moved to Arizona in 1972 and graduated from Arizona State University with a major in Elementary Education. Susan also has a Master's Degree from ASU in Elementary Education with emphasis on Middle School studies. In 1982, Susan began her 14 year plus teaching career in the Kyrene School District. She loved teaching science, social studies, language arts and physical science to 5th - 8th graders. Susan is now in her second year as Principal at Kino which is her second Principal assignment in and around the greater Tempe/Mesa area. Kino Junior High is a national STEM School (Science, Technology, Engineering & Math) program and it is Susan's focus for her school. Oh, did I mention that during this period she raised two children?

Here are some quotes from Susan about the AWIM program at Kino:

"The AWIM program is amazing! The benefits of having the program/volunteers in our school are many ; For the students - there are so many benefits including being mentored by professional engineers, working alongside the college engineering students (so close in age to our kids and what great role models) as well as applying science concepts to real life situations. For the teaching staff - provides a great opportunity for our teachers to see a successful collaborative effort between educators and the private sector. For the Principal - a fabulous program that may motivate our students to focus on their math/science classes because they can see themselves as working engineers in the future."

"What I would want readers of this article to know; Our students are bright, talented and interested in the world around them. We are thankful for these caring adults who have donated their time and energy to give our students entry into a world they may never have known existed."

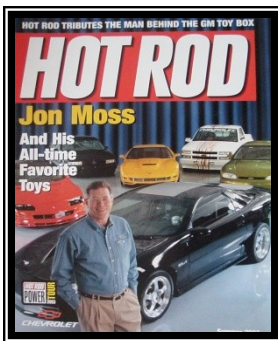
KINO JUNIOR HIGH SCHOOL, MESA AZ

Karen Rascon, Teacher. Born in Massachusetts, but lived in many different parts of the country and world. Moved to Arizona in 1981 where she graduated from Arizona State University with a degree in Special Education. She later obtained a Masters Degree from Northern Arizona University with a degree in Educational Leadership. For the past 28 years Karen has been teaching in various elementary schools in the Mesa School District and has been at Kino Junior High for the last two years. In addition to AWIM, she teaches primarily Advancement Via Individual Determination (AVID), College Preparatory Electives and 2 Honor English classes.

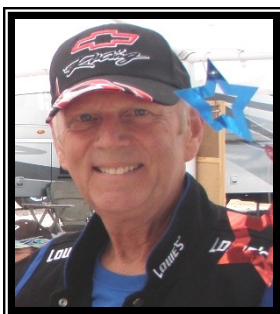
Karen is not new to the AWIM program having been involved over the last 5 years in two different schools. She has taught all five AWIM middle school modules and is a two time winner (2008 & 2009) of the Gary Dickinson Award which is presented by SAE to the outstanding middle school teacher who shows exemplary use of the AWIM curriculum. As luck would have it, she was exposed to AWIM by Don Robins when she was looking for an engineer to come and talk to her AVID class and he just happened to bring along with him the ASU student engineering volunteers to help out.

When asked "why do you do AWIM" and "what does the AWIM program mean to you, she gave the following responses:

- "AWIM fits perfectly into my AVID initiatives which offer us another tool that I use to expose students to various career opportunities. It gives student exposure to the fields of math and science to the AVID focus on marketing, engineering, business leadership, skills development and public speaking. It's all about trying to get kids to college."



Jon Moss, GM Retirees Club past President and AWIM Volunteer/Site Coordinator. Retired GM executive automotive engineer. Recognized in the August 2012 issue of Auto Enthusiast Magazine as one of "Top 10 Men Who Mattered in Chevrolet History". Jon was known as a "True Hot Rodder" - one who builds high performance cars that make drivers have white knuckles and passenger scream! Responsible for assisting school in the implementation of the AWIM program. Coordinates volunteer activities. Here is a quote from Jon about why he volunteers..."The real joy in working with the AWIM program is to see the students have fun with math and science and say that someday that they would like to design the new Corvette or Electric vehicle for a company like GM."



Lee Humbert, GM Retirees Club AWIM Volunteer. Retired GM Automotive Mechanical Engineer for Powertrain Engine Development and Test. NASCAR enthusiast. Lives in the greater Phoenix area and loves to work with children.

KINO JUNIOR HIGH SCHOOL, MESA AZ



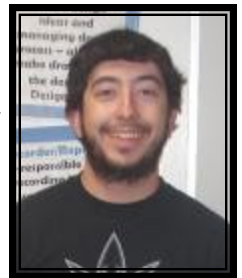
Bill Klein, An AWIM Legend! Bill was born in SE Michigan, but grew up in Tucson, AZ. He earned a BSEE degree from ASU and went to work for Texas Instruments. At retirement, he was a Senior Applications Engineer. Bill's "retirement life" changed forever when he responded to a tiny "Call for Volunteers" article placed in a local newspaper by Don Robins in the Spring of 2008. He joined the Arizona AWIM team mentoring 7th - 9th grade classes in two activities - the Motorized Toy or the Glider Challenge. Bill quickly was recognized as a "self motivated" expert in being able to take the AWIM programs to "the next level". Working with AWIM teaching materials, Bill continues to assist SAE to improve many of the AWIM programs. Bill has also become an AWIM Master Trainer /Teacher and is certified by SAE.

Bill currently is volunteering in all 7 Phoenix area school to some degree, but is a full time volunteer and Site Coordinator in more than one school. For his significant contribution to AWIM and untiring dedication, Bill was nominated and received the 2011 SAE Bill Agnew Award which recognizes his service as a volunteer who further develops students' understanding and experience in math and science by helping teachers use the AWIM materials in the classroom.

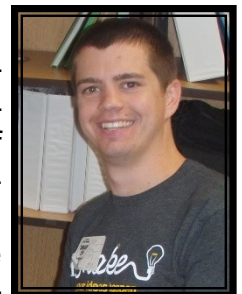
Kino - ASU Polytechnic Engineering Student Volunteers

ASU student volunteers offer a unique perspective on the program, because they are seen as being "peers" by the AWIM students. Yes, they assist the students in the execution of the classroom portion of the training, but the kids look up to them because they are young. These ASU volunteers are an exceptional group of smart, talented and motivated men who have a real sense of reality and we have been extremely blessed by their contributions. All of them are part of the ASU Polytechnic Baja SAE Racing Team and collectively have volunteered more than 100 hours at the Kino Junior High AWIM program this year. Listed below are the seven (7) ASU Engineering Students that assisted Kino Junior High in this years' AWIM program:

Josh Conter: Born and raised in Las Cruz, New Mexico, Josh is a 3rd year sophomore majoring in Mechanical Engineering. This is his first year as an AWIM volunteer. Josh loves to help kids learn. Needless to say, he will be back next year.



Matthew Grunwald: Born in Corpus Christi, TX and raised in Lindstrom, Minnesota, Matt decided saw very quick what ASU had to offer in its Engineering Department. Matt is just completing his sophomore year and is seeking a Bachelors of Science of Engineering in Manufacturing Engineering with a primary focus in Mechanical Engineering Systems and a secondary focus in Robotics and Automation. Once he graduates he would like to move back to Minnesota and find a job in the industry that allow him to develop, plan, design, and implement manufacturing processes through the use of robotics and automation. This is Matt's first year as an AWIM volunteer.



KINO JUNIOR HIGH SCHOOL, MESA AZ

Spencer Klimpke: A Mechanical Engineering student at ASU Polytechnic. Spence did work part time in the Kino AWIM program, but most of his time was spent at Canyon State Academy AWIM program. (See Spencer's write-up in the Canyon State Academy AWIM program review which follows later in this article.)

Collin Johnson: Born and raised in Gilbert, AZ, Collin is now a sophomore at ASU majoring in Mechanical Engineering Technology with a focus in automotive. It is his desire upon graduation to be a test engineer at the proving ground or a smaller engineer / prototyper at a smaller company. This is Collins' second year volunteering for an AWIM program and he is dedicated to exposing young people to the engineering profession. Collin is the ASU Baja SAE Racing Team Captain.



Josh Patton: Born and raised in Arizona quite naturally he expected to attend ASU when he started college. He is now a sophomore majoring in Manufacturing Engineering Technology. Josh's career hopes are to secure a job to design and manufacture parts for people and then start to get into the design of CNC machines and their tooling. This is Josh's first year as an AWIM volunteer and he plans to continue volunteering for the next several years. He enjoys seeing the kids faces light up when they see their creation go up the hill.

Josh Plyer: Born and raised in a small mining town called Morenci, AZ, Josh is now a sophomore at ASU majoring in Mechanical Engineering Technology with an automotive emphasis at the ASU Polytechnic campus. His career hopes, post graduation, include working for an automotive manufacturing company as an automotive engineer. This is his first year volunteering, but he assures us it won't be his last. The main reason he volunteers is to help junior high age kids learn about the engineering process. Josh's most memorable AWIM experience was when the kids were learning about gear ratios. "After they were taught how gear ratios worked, we applied the concept to the car. Once the kids saw a demonstration of how gears worked, their eyes lit up and they understood what they were being taught. It felt good to see them excited about learning."



Marcus Hansen: Born and raised in the Mesa, AZ area made ASU a natural fit for Marcus to continue his advanced education at ASU. He is junior majoring in Mechanical Engineering with emphasis in automotive. Marcus get great pleasure at seeing students learn and progress through their involvement in the AWIM program, especially those students who are given a second chance. Marcus is an AWIM volunteer at both Kino Junior High and Canyon State Academy for the past two years.

KINO JUNIOR HIGH SCHOOL, MESA AZ

Kino Junior High - Final AWIM "Motorized Toy Challenge" Night

This is the night that all the kids get to talk about, demonstrate and share the results of their efforts with family and friends in the school gym. It is also the night that their AWIM projects are scored to determine which projects were the best for the year. The Design Teams were split into two groups, 3rd Hour and 4th Hour, each having six or seven individual teams. The students were fantastic, very attentive, involved and clearly excited about what they had learned and produced. It should be noted that all Design project toy cars looked great, they all met at least one of the performance requirements and all the PowerPoint presentations were very good. It's important that children receive the recognition they deserve for the efforts they put forth from not only their team mates, but especially from their family and friends who were in attendance for the Challenge. The following is a pictorial presentation of "their night". Great Job Students!!!

4th Hour Class



Sugar Bears Toyz

1st Place



Thunder Auto

2nd Place



Toys w/Gears

3rd Place

3rd Hour Class



VYJY Inc.

1st Place



Gear Up

2nd Place

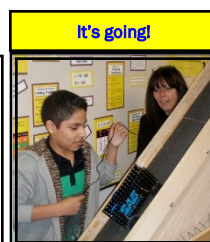


F.U.N. Inc

3rd Place



Looks complicated!



It's going!



THIS WAS FUN!



MEET THE BAJA SAE BOYS



Planning & analysis



Prototype Build

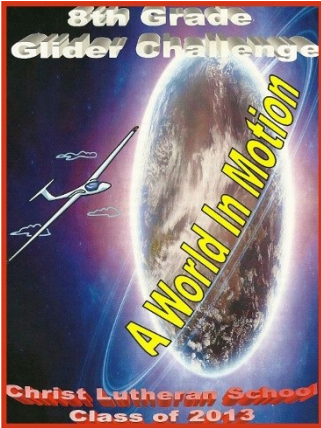


Prototype test car



Lets go racing Boys!

CHRIST LUTHERAN SCHOOL, PHOENIX, AZ



Christ Lutheran is part of a national network of Lutheran schools located throughout the United States that provides educational opportunities to students preschool through 8th grade. It was founded in 1955 and presents a full complement of strong Christian educational programs to meet the challenges of our world today. Their Mission is clear: With God as our foundation, we equip children for life-long learning and service by nurturing hearts and minds for Christ. Students are given the opportunity to succeed and excel because they are taught at their academic ability level in a rigorous and challenging academic program. Teachers and staff lead by example. Teachers encourage and build up their students. The learning environment is structured based on Christian values.

This is the 5th year Christ Lutheran School has participated in the AWIM program and it is always a joy to see what ideas the CLS students will come with each year. This year 8th graders will complete the "Glider Challenge" working in partnership with AWIM volunteers from General Motors and Arizona State University. In this "Challenge" students explore the relationship between force and motion and the effects of weight and lift on a glider. Students learn the relationships between data analysis and variable manipulations, and the importance of understanding consumer demands.



Cheryl Ehlers, Principal. She was born in Sioux City, IA and grew up in Nebraska City, NE until high school. Since then, she lived in many US cities and in Bangkok, Thailand. Cheryl received her BS degree in Elementary Education from Winthrop University in South Carolina and a Masters degree in social sciences with an emphasis on leadership studies from Azusa Pacific (CA), and is working on her dissertation for her EdD in Organizational Leadership from Grand Canyon University, Phoenix, AZ. She started with CLS as a teacher in grades 2-5 before serving as assistant principal (3 years) and principal (7 years).

Here are Cheryl thoughts as it relates to having the AWIM program at Christ Lutheran:

- "The AWIM program has been a wonderful addition to the 6th and 8th grade curriculum at CLS. It combines a number of things which are valued by our community, including a strong hands-on emphasis in the engineering, math, science, and computer fields, community partnerships, and an encouragement to consider these fields of study as a future career choice. Linking our students with such encouraging and amazing professionals - both young and old - provides them with unparalleled experiences at a young age. We are very grateful to be included in this program. "
- "We cannot adequately thank GM for having the foresight to create a program which challenges both our young men and women in the science and technology field. AWIM was at the forefront long before STEM programs gained the recognition as a valued component in our educational programming."
- "CLS was recently one of 9 schools named a National Lutheran Exemplary School by our national Lutheran accrediting agency."

CHRIST LUTHERAN SCHOOL, PHOENIX, AZ

Chuck Tasler, Teacher: He was born in North Dakota and has lived in many cities throughout the US. Most of his grade school and high school years were spent in Colorado. Chuck received his BA degree in Secondary Education and a BS degree in Mathematics from Concordia University, Seward, NE. In addition, he earned his Masters in Educational Leadership from Concordia University, Mequon, WI.

Chuck began his teaching career at St. Johns Lutheran School in Ocala, FL and taught middle school and high school science and math for 8 years. The last two years in Ocala he served in the administration as Director of Guidance and Secondary School Principal. He coached track, cross country and basketball for most of those 8 years which he thoroughly enjoyed. Chuck is now in his 9th year CLS and has taught all nine years in the junior high grade levels mostly in math, science and theology.

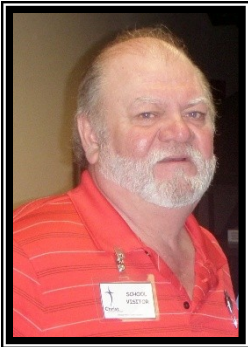
Here are Chucks' thoughts as it relates to having the AWIM program at Christ Lutheran:

"I have really enjoyed integrating the AWIM Glider Challenge into our curriculum and love the way that it integrates many different subject areas along with an experiential type learning for our kids. I teach physical science and so integrating this program into my existing program was very easy. The challenges of cooperative learning and attaining goals is a wonderful experience for the students to see how real engineers work and complete tasks as a team for a common goal. I now can cover the material that I would normally do from the textbook in ways that help them brainstorm, think critically, and learn through trial and error and hands-on-tasks rather than just book work."

"I really enjoy seeing the teams learning to work together as a unit and develop communication skills, attaining a specific goal, and learning the strengths and weaknesses of team members and how to work as a unit some of my students have moved on to college and entered the fields of engineering and aeronautical. You also have to give our retired GM volunteers and ASU student engineers a lot of credit. They have been a real blessing to our program and our successes with this program. Our students look forward to this program every year. The students deserve all the credit for what they achieve and I look forward to continuing this program for years to come."



Bill Von Kampen, GM Retiree Volunteer and Site Coordinator. Bill was born and raised in Hastings NE and is a product of the Zion Lutheran Elementary School. He attended collage at the University of Nebraska and earned a BS in Mechanical Engineering. Upon graduating he began working for Chevrolet Engineering at the Holbrook Labs in Detroit, spent some time in the Army and returned to Chevrolet where he spent 38 years in various engineering job. His last position was Assistant Chief Engineer for Chassis and Powertrain for the full size pickup, Blazer, Suburban and Chassis Cabs. He retired in 1992. Bill and wife Paula have been married for 53 years, have two children and 8 grandchildren and one great grandchild. Believe it or not, Bill and Paula are members of Christ Lutheran Church and along with Don Robins were instrumental in implementing the AWIM program at the school.

CHRIST LUTHERAN SCHOOL, PHOENIX, AZ

Hal Hubbard, Retired GM Volunteer. Hal is a 32 year veteran of GM who began his career at the Chevrolet Tech Center. During his career he spent some time at the Denver Emissions Lab and Desert Proving Ground in Mesa. He specialized in V-8 engines for use in pickups, Corvette and Camaro. He retired in 2005 and now resides in Peoria, AZ with his wife Cathi.

CHRIST LUTHERAN - ASU ENGINEERING STUDENT VOLUNTEERS

Nicolas Corrales: Born in Germany (Dad in US Air Force), but was raised in Mesa Arizona. Nicolas is finishing his junior year at ASU and is majoring in Mechanical Engineering with an emphasis in Computational and Mathematical Mechanics. Nicolas also recently started on his Graduate degree through ASU's 4+1 graduate program. He is the SAE@ASU Outreach Coordinator and a member of ASU's Formula SAE race team. His hope is to find a job in the auto industry with a job in research and development after graduation. This is his second year as an AWIM volunteer and wants to continue to "share his passion" in future years with young students.

Nicolas is an AWIM volunteer at both Christ Lutheran School and Canyon State Academy. His most memorable "AWIM Moment" was when a student at Canyon State made a last minute change to his glider (Challenge Day Change) and he flew it out of the room. This was an unbelievable event not only for the student, but for all teachers and volunteers. They were so impressed with his accomplishment that they gave him a special medal for the creativity of his design. Do you think this event had a positive impact on the student's life?

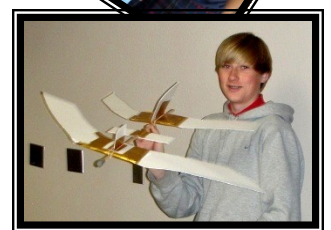
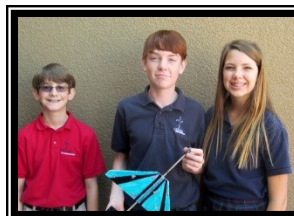
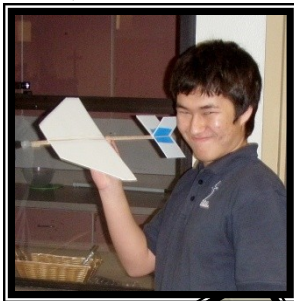


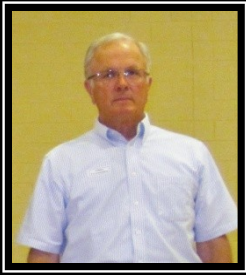
Austin Pezzella: Born in Massapequa, NY and raised in Glendale, AZ, Austin now is a 1st year graduate student working towards a Masters degree in Mechanical Engineering. Austin enjoys working with finite element analysis so will probably continue to a career in analysis. This is his second year with the AWIM program. He likes working with students and feels that the experience of designing and building their own projects may encourage them to enter engineering. Austin is the captain of the SAE Supermileage Team whose goal is to design and build a highly fuel efficient vehicle for competition.

Ryon Standley, Tempe SAE Chapter President & Todd Holladay, Vice President: ASU Student Engineer Support Team

CHRIST LUTHERAN SCHOOL

Final AWIM "Glider Challenge"



CHRIST LUTHERAN NON GM AWIM VOLUNTEERS

Wes DeCou, AWIM Volunteer. Born and in Alameda, CA and attended Stanford University where he earned a BA degree in Psychology. Wes entered the US Navy where he learned to fly, and later earned his Commercial pilot certificate as a civilian. He began his career at Western Electric and transitioned to AT&T where he worked in customer service and systems before he retired in 1998. Aviation has always been his passion and for awhile he was Vice President of the Academy of Model Aeronautics and his constituency consisted of members in NY, NJ and Academy members serving our armed forces in Europe. Can you think of a better AWIM Volunteer to have in your classroom Glider Challenge than Wes? He has been an AWIM volunteer for 6 years in two different schools.

Terry Ruehs - 3 years, Roy Silorski (deceased) - 1 year, Lyle Fajen - 3 years, George Bella - 1 year, Tony Davino - 2 years, Rich Van Riper - 3 years, Mel Huebner. All of these men have been past volunteers at Christ Lutheran School and have donated hundreds of hours in order to enrich the lives of CLS students. For your dedicated service we can't thank you enough.

Ryon Stanley, Tempe SAE Chapter President & Todd Holladay, Vice President. ASU Engineering Student Volunteer Support Team

OTHER PHOENIX AREA AWIM PROGRAM SCHOOLS

CANYON STATE ACADEMY, Queen Creek, AZ. An all boys alternative public "charter school" serving grades 7-12. Its goal is to be a home for troubled boys that need skills development and counseling. The school is located on a 173 acre campus which offers a variety of programs from temporary shelter to long term residence. Dedication to improving the lives of youth is its Mission and to that end it has an outstanding staff who are dedicated to make it happen. This is one of the most unique AWIM programs in the country...dedicated principal, teachers, good volunteers and students who wanted to learn. The school just finished the 8 week Motorized Toy Challenge. Listed below are the men and women of the school's leadership team and volunteers that we would like to recognize and thank:

Liz Gonzalaz, Principal

Bettina Bravo, Teacher

Stu Frost, AWIM Volunteer. Sun Lakes Rotary Club volunteer

Bill Klein, AWIM Volunteer. Also volunteers at Kino Junior High School

Landon Osborn, AWIM Site Coordinator. Sun Lakes Rotary Club volunteer

Marcus Hansen, AWIM ASU Student Engineer Volunteer for past two years

CHIEF HILL LEARNING CENTER, Chandler, AZ. This is the newest alternative school program in the Chandler Unified School District created to support the community by providing second chance opportunities to students in seeking a traditional school setting for grades 7-12.

OTHER PHOENIX AREA AWIM PROGRAM SCHOOLS

Listed below are the men and women of the school's leadership team and volunteers that we would like to recognize and thank:

Dave Constance, Principal
David Kortuem, Teacher
Landin Osborn, Sun Lakes Rotary Club AWIM Volunteer
Morris Johnson, Sun Lakes Rotary Club AWIM Volunteer
Rebeca Christensen, ASU Student Engineer Volunteer.
Don Robins, GM Retiree Club AWIM Volunteer and Club past President.
Nicolas Corrales, ASU Student Engineer Volunteer.
Jim Maxwell, GM Retiree AWIM Volunteer.

IRA FULTON ELEMENTARY SCHOOL, Chandler, AZ A public school serving over 958 students in grades K-6. IRA Fulton is one of the highest rated schools in the State of Arizona with a fantastic administration, great teachers and students and excellent parent involvement. Ira Fulton is the biggest Phoenix area AWIM school with over 200 5th & 6th grade students participating each school year.

Amy Kramb, Principal
Josh Cagle, Teacher Coordinator. Josh manages the assignments of five 5th grade and four 6th grade AWIM teachers.



Ralph Uthe, GM Retiree Club AWIM Volunteer and Site Coordinator for the past 5 years. Ralph is originally from St. Lewis, Missouri and earned his degree from the University of Missouri at Rolla. He spent 33 years at GM in various engineering positions the last of which was GM Chief Engineer for Small Trucks. Ralph is a key AWIM veteran with over 5 years of service that has had a major impact on the AWIM program in the Phoenix area. He now lives in Chandler, AZ.

Jim Maxwell, GM Retiree Club AWIM Volunteer. Born in Queens, NY and raised in Baltimore, MD. Jim was sponsored by GMC Truck at GMI and graduated with a Bachelors of Mechanical Engineering degree with emphasis in automotive sales and service. He was a GMC Field Sales and Service guy for most of his career and progressed to Zone Service Manager before he retired in 1991. Jim has three children, 7 grandchildren and 2 great grand children. Jim is a 6 year AWIM veteran having worked in 6 different schools. He has logged more volunteer hours than any other AWIM volunteer. He truly has been the "work horse" of the Phoenix area AWIM programs.

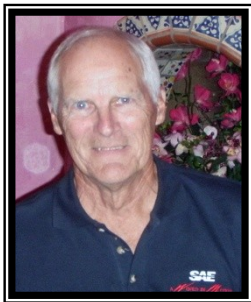


Nicolas Corrales, AWIM ASU Engineering Student Volunteer.

Ryon Stanley, AWIM ASU Engineering Student Volunteer.

CANYON RIDGE ELEMENTARY—SURPRISE AZ

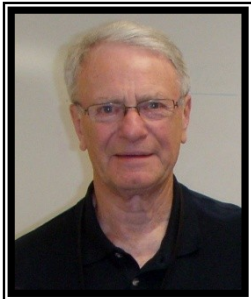
Becky Rose, Teacher. Received the 2008 national team SAE AWIM Gary Dickenson Award for teaching excellence and the 2010 SAE national AWIM Lloyd Reuss Award for teaching excellence. Both awards received while at Western Peaks Elementary, Surprise, AZ. She is an Advisor of the Canyon Ridge Chapter of the National Elementary Honor Society. Becky is qualified to teach all five AWIM Kit Challenges and is starting the AWIM program at Canyon Ridge for the first time this year. She is an AWIM Pro!



Tom Terry, GM Retiree Club AWIM Volunteer and Site Coordinator. Tom started his GM career in the Safety R&D Lab at the Milford Proving Ground as a Project Engineer in Biomechanics. His career moves included executive positions in the Accident Research Program, Environmental Activities Staff, NHTSA Engineering, Crash Evaluation and finally was appointed Director of Safety Affairs and Regulations before he retired in 2001. Married to his wife Pat for 48 years and have three children. Tom also is an AWIM Pro having over 4 years of experience.



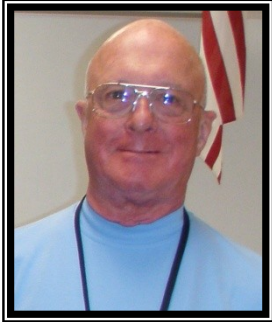
Jim Irwin, GM Retiree Club AWIM Volunteer. Jim was born and raised in Pueblo, CO. His first job with GM was with Cadillac in 1963 who eventually sponsored him at GM Institute where he graduated. In 1970, he went to work at the Technical Service Research Group at the Warren Tech Center and eventually retired from the Service Technical Group in 1999 as Director - Training Center Operations. Jim and his wife Kathy moved to Wickenburg, AZ in 2000 where he commutes to and from when volunteering for AWIM classroom duty. He has been volunteering in various schools since 2007. Another AWIM Pro!



Bob Kohler, GM Retiree Club AWIM Volunteer. Began his career as a GMI student in 1957 and most of his corporate years in Plant Engineering /Maintenance and Tooling until he was promoted to Superintendant of Production at the Metal Fab plant. Bob retired as Superintendant of Maintenance in 2000. He spent most of his Army career as an aeronautical engineer assigned to testing of the Chinook helicopter. Bob has been married to his wife Andrea for 45 years and they have two children and one grandchild. Bob is a true AWIM Pro having been working with the programs in the Phoenix area for over 5 years.



Jim Smeets, GM Retiree Club AWIM Volunteer. Born and raised in Flint, MI, Jim started with GM in Chevrolet Finance/Office Services and was Pay Master for two plants. He worked pretty much in the finance arena his entire career with Chevrolet, Fisher Guide, AC Delco and AC Rochester where he was Supervisor of Financial Records. Jim has been married to his wife Sue for 57 years. He is a past President of the GM Retirees Club and has volunteered in the AWIM program since 2008. Another AWIM Pro!

CANYON RIDGE ELEMENTARY—SURPRISE AZ

Ron Boyce, GM Retire Club AWIM Volunteer. Born and raised in Pontiac, MI where his dad was a GM Chief Body Engineer. He attended Western Michigan University and earned a Bachelor of Business Administration degree. Upon graduation, Ron joined the US Air Force for undergraduate pilot training and flew F4 Fighter Bombers in Viet Nam and qualified to fly KC 135 Tanker aircraft. TWA hired him where he spent 2 years as a commercial pilot before attending GMI where he took service engineering and University of Automotive Management courses. Ron's GM career was varied - spent time with GMC, Buick, an assembly plant in a quality role and was lucky enough to be chosen as a field representative to sit on a GM Quality Focus Team which studied and made recommendations for vehicle launch of new products. He retired from GM in 2001 at which time he was a GM District Service Manager in the Marketing Center in Green Bay, WI. Ron has been an AWIM volunteer for 3 years.

Stan Owen, GM Retiree Club AWIM Volunteer. Started his career with GM at AC Spark Plug in Flint, MI. Spent most of his career in Production Engineering attaining executive management levels in various manufacturing plants. Retired in 1998 from GM Delphi Automotive. Stan is an aviation private pilot, loves boating and spends half of the year in AZ and the other half in Michigan. Stan and his wife Jeannine have 4 children and 2 grandchildren. Stan too is an AWIM Pro having spent the last 6 years volunteering in the programs in the Surprise, AZ area.

SPECIAL RECOGNITION AND THANK YOU TO:

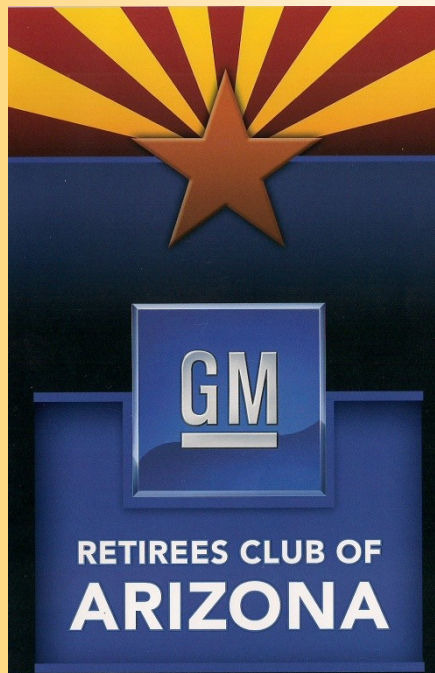
Alba Colon, GM Program Manager Sprint Cup Racing, one of the most influential women in NASCAR. Alba attended the University of Puerto Rico and received her degree in Mechanical Engineering. She cut her engineering teeth with SAE's Collegiate Design Series and continues to make this and the AWIM program a priority in her life. The Phoenix International Raceway has two NASCAR Sprint Cup races a year and Alba has taken time out of her busy schedule to visit our AWIM students in their classroom on many occasions. In addition, she is a regular visitor at Arizona State University bringing a NASCAR driver with her to visit the race teams and talk to students.

Sun Lakes Rotary Club for providing the 2012/2013 AWIM student recognition medals and also giving a \$2,000.00 donation to the SAE Learn Twice Program. All \$2,000.00 will come back to the ASU through the Student Sections in Tempe and the Polytechnic Campus. The Rotary Club of Sun Lakes also recognized ASU AWIM volunteers by presenting them with SAE-AWIM golf shirts.



www.GMRetireesAZ.com

GM RETIREES CLUB



" A G M R E T I R E E S C L U B O F A R I Z O N A P U B L I C A T I O N

Designed by Diane E. Harshman

**FOR THE LATEST GM NEWS AND INFORMATION
GO TO**

WWW.GMRETIREE.COM