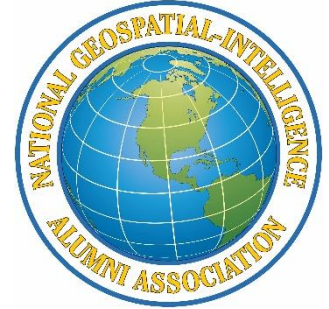




National Geospatial-Intelligence Alumni Association – East Chapter

APRIL 2021
#118



From the NGAA-East Chapter President:

NGAA-East (formerly the National Geospatial/Intelligence Alumni Association-NGIAA and the Defense Mapping and Charting Alumni Association-DMCA founded in 1980) provides a way for current and retired DMA/NIMA/NGA employees to keep in contact and exchange information, ideas, and experiences. Currently, NGAA-East has over 544 active associates and members.

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We use the Internet to communicate timely information to you. Please submit any address, phone, and email changes to:

Ange Meoli

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We also welcome any new articles or items of Interest you would like to share with NGAA-East. Please submit to Ange Meoli at

Once again I am writing from home, although I HAVE now been to offices twice in a month. Is this a sign that we are finally digging out? Time will tell. For now, we managed to have some sessions with Admiral Sharp which were both enlightening and well attended. It is always good to know that the ship is still on course (how appropriate with a Navy Man at the helm...).

Besides crafting a meeting in the next few months (we are working on it being live, but probably not on NGA property as they will still be in formal recovery), will be holding elections in the early Fall for my replacement. Seems odd to talk about it when I still haven't HAD an in person meeting as chair, but "them's the breaks..." We do need members with drive to help lead the team, so if anyone is inclined to join our band in one of the roles, please contact the staff at the address on this letter.

I am happy to say I personally completed my vaccination cycle on the 13th of April, and that all but one of my family is now done (the last will start next week). I highly encourage all who are medically able to follow suit as soon as possible, so that we can once again be in each other's presence, and enjoy the fellowship (and wine?) of our compatriots. For now, stay safe and healthy,

Sincerely

Barry C Tilton 2020-21 NGAA-East President

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CHAPTER NEWS

25 Years of Showing the Way

NGA Director VADM Robert Sharp reflects on the 25-year history of the agency and the 'Moonshot' operational effort; to face a future as challenging as our nation's first journey to the moon. In the coming year, NGA and the GEOINT Community will celebrate the establishment of NIMA and the agency's 25th anniversary. There will be a reflection on past accomplishments and celebrations on where NGA has been. There will be an acknowledgment of the people and organizations who have helped lead the way. It's also a chance to reflect on where NGA is and to reimagine where NGA is going. The GEOINT Community is facing a future landscape as challenging as that first journey to the moon, and together NGA and the GEOINT Community can take giant leaps for the safety and security of our great nation.

<https://www.youtube.com/embed/VIKnYyszDYg>

NGAA-EAST SCHOLARSHIP PROGRAM

The NGAA-East Chapter has established an annual Scholarship Program as an opportunity to invest in the future of aspiring college students or those currently enrolled. We are actively seeking membership donations to this program. If you would like to participate and aid our efforts in making these scholarship awards possible, please send a check to Mr. Dennis Drum, 905 Spring Knoll Drive, Herndon, VA 20170-3925, payable to NGAA-East Scholarship Program.

The purpose of these scholarships is to give recognition to deserving individuals for their academic achievements, citizenship, service to their schools and communities, and their overall leadership.

We are now seeking applications for the 2021 NGAA-East Scholastic Advancement Scholarship. You are invited to nominate your family members or friends for one of two scholarships which will be granted in the amount of \$500.00 each.

Please see the attached application form for complete information. Applications are due no later than 30 June 2021. Applications should be sent to ngaaeastexec@aol.com, [application form](#).

IAGS UPDATE

Jack Hild provided this update on his research into the deaths of staff supporting the IAGS mission to map South and Central America.

Over the last few months, I've 'zoomed' with about 50 people with interest and knowledge of the IAGS mission. My deep thanks to all who participated. Validating the research with some first-hand knowledge was helpful and I really appreciated everyone's time. Those discussions, as well as Candy Frames' editing expertise, helped with some last-minute changes to the final report. NGA is making progress on the memorial. Several drafts of the design have been completed and a location near the main elevator complex is being considered. I'm happy with the progress and hope to report an "unveiling" date for the memorial in the near future.

COVID-19: Pandemic Status.

It's hard to imagine how long we have endured during this pandemic. Due to the Covid-19 virus, there has been a tremendous number of lives lost here in the United States and abroad. As of April 17, 2021, at least 38% (127,743,096) of the US population are fully vaccinated. The World population has a much lower vaccination rate where only 487,410,659, approximately 6% of the World's population is fully vaccinated. Please visit the Covid-19 Dashboard provided by the Center for Systems Science and Engineering (CSSE) [website for more information on the infection rates deaths from around the World](#).

Although the rollout of vaccinations varies from state to state, all of us should continue to follow the CDC recommendations of wearing a face-covering when out in public, avoid large indoor gatherings, and continue to wash our hands with soap and warm water. A simple song like "Happy birthday" or "Jingle bells" can be hummed twice will ensure you have washed for the established amount of time, about 20 seconds. When out, wear a face mask or a face shield; gloves can be worn, but only once to avoid spreading the virus. You may opt for a hand sanitizer or hand wipes, but use ones that have a minimum of 70% alcohol. These are great alternatives when you're not near a water source.

A simple reminder that the many variations of vaccinations are necessary to reduce the symptoms sustained if you should contract the Covid-19 virus. However, you can still contract the virus. Be careful out there and protect yourself and your family. **There is no cure.**

Update on the Space Junk

Tiny Astroscale satellite will test space junk cleanup technology with magnets

The commercial satellite ELSA-d is in orbit now. Its days are numbered.

[Click here for more Space.com videos...](#)

The Japan-based company's End-of-Life Services by Astroscale-demonstration (ELSA-d) mission lifted off from Russia's Baikonur Cosmodrome in Kazakhstan on March 22. It was among the 38 payloads that were carried into space by a Soyuz rocket as part of the [first all-commercial rideshare mission](#) for Russian company GK Launch Services.

The [ELSA-d mission](#) will test new technology developed by Astroscale, which consists of two satellites stacked together: a 385-lb. (175 kilograms) "servicer" and a 37-lb. (17 kg) "client." The servicer is designed to safely remove debris from orbit, while the client spacecraft will serve during the demonstration as a piece of debris to be cleaned up. Once the two satellites separate, they will perform a cosmic game of cat and mouse over the next six months.

Related: [Space junk clean up: 7 wild ways to destroy orbital debris](#)

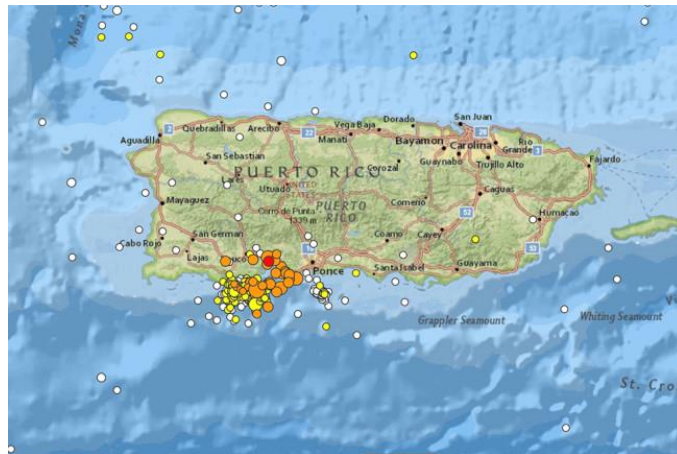
The End-of-Life Services by Astroscale-demonstration (ELSA-d) mission will test a magnetic docking technique to remove space debris from orbit. The "servicer" satellite will use GPS to locate space debris and then latch onto it using a magnetic docking plate to carry it down toward the Earth's atmosphere, where it will burn up. The Astroscale's Mission Operations team at the In-Orbit Servicing Centre in Harwell, U.K., has successfully made contact with our ELSA-d spacecraft and established that all initial system checks are satisfactory for the first phase of the technical demonstrations.

Using a series of maneuvers, Astroscale will test the satellite's ability to [snatch debris](#) and bring it down toward the Earth's atmosphere, where both servicer and debris will burn up. The servicer is equipped with a magnetic docking plate, as well as GPS technology to estimate the exact position and motion of its target. This debris removal demonstration project is the first of its kind by a commercial satellite operator, according to the statement. During the trial mission, the company will test whether the servicer can catch the client satellite in three separate demonstrations.

In its first maneuver, the servicer will gently release the testing debris then quickly catch it. Next, the servicer will attempt to capture the client as it tumbles through space at up to 18,000 miles per hour.

[Click here for more Space.com videos...](#)

Puerto Rico you lovely Island



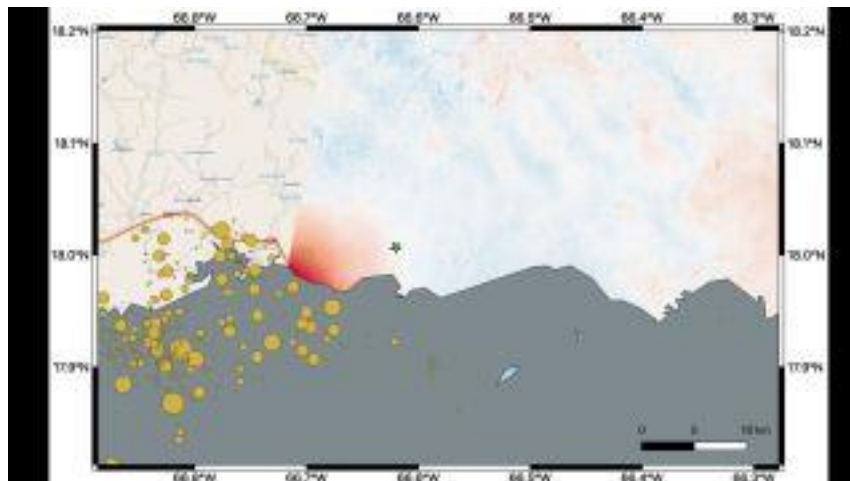
By a current resident in Puerto Rico

In the city of La Parguera: Dale Robinson

We hardly give the Island of Puerto Rico a thought, except for the times when we hear of a major hurricane making landfall on the Island or we hear about the impact of a major earthquake that hits the Island. This has been especially true during the **long year (2020)**, where we all were dealing with the news of the worldwide COVID-19 Pandemic and the impact it was having on our daily lives. As of the end of March 2021, Puerto Rico has had 206,420 cases of COVID-19 and 2121 deaths.

The combined effects of Hurricanes Irma and Maria, which hit Puerto Rico in September 2017 are still being dealt with in 2021. To add to these devastating tragedies, the Pandemic hit in 2020, and the Island has also begun to experience earthquake swarms. Starting on December 28, 2019, and progressing into 2021, the southwestern part of the island of Puerto Rico was struck by an earthquake swarm, including 11 earthquakes that were of magnitude 5 or greater. The largest and most damaging of this sequence was a magnitude 6.4 Mw, which occurred on January 7 at 04:24 AST, with a maximum felt intensity of VII (Very strong) on the Modified Mercalli intensity scale. ...

en.wikipedia.org



This map shows ground changes, or displacement, on the eastern two-thirds of Puerto Rico following the 6.4-magnitude earthquake of Jan. 7, 2020. Areas of displacement are shown in red, with greater displacement by darker shades. The ground shifted up to 5.5 inches (14 centimeters) in a downward and slightly west direction. The orange circles show the cluster of quakes and aftershocks that have hit the island recently.

The swarms of [earthquakes](#) that have rocked Puerto Rico recently left marks that are visible from space. [About 2,000 quakes](#) have shaken Puerto Rico since late December, with the most powerful a 6.4-magnitude temblor that took place last Tuesday (Jan. 7), centered just off the island's southwest coast. That one, the biggest quake to hit Puerto Rico in a century, killed at least one person, damaged nearly 600 buildings, and caused at least \$110 million in damage, [Reuters reported](#). The series of quakes have also altered the lay of Puerto Rico's land, researchers studying imagery captured by the European Space Agency's [Copernicus Sentinel-1A satellite](#) determined. The statistics regarding earthquake swarms are staggering for the people that are living on the Island. There have been over 7000 earthquakes in 2020, details on the largest earthquake are on this website (<https://www.usgs.gov/media/images/2020-puerto-rico-earthquake-sequence-jan-16-2020>). The predominant time of occurrence cannot be determined, since major earthquakes or minor so-called trimmers can happen any time during the day or night. You can't imagine the level of anxiety that children, adults and the elderly are dealing with in the daytime and at night. Wondering if an earthquake will be strong enough to cause severe damage to their home or the surrounding area. Damage to the surface roads can make the simple chore of getting groceries very difficult.

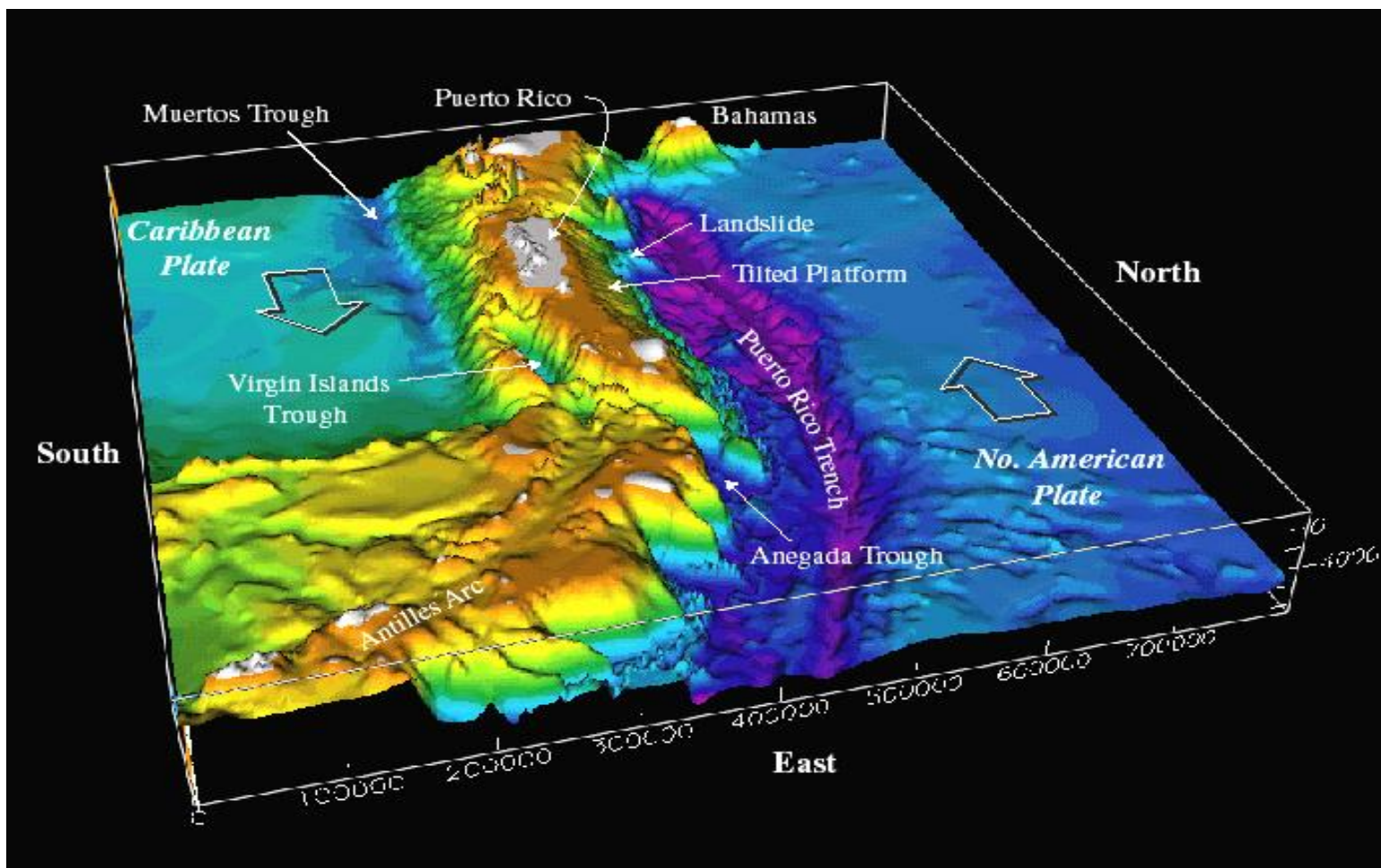
I was in the city of La Parguera, Puerto Rico in 2020, which is close to the epicenter for all the earthquakes that are happening on the Island. As it was, that year, I experienced first-hand a large number of earthquakes; and now I am here again in La Parguera in 2021 with the earthquake swarms still happening. My visit this year started in March and so far, there have been 235 earthquakes, ranging from 4.8 to just below 2.0. I also should point out that not only are people affected by these earthquakes but animals, which are very sensitive to the motion of the earth are also impacted.

Fear of unstable houses and the fear of a major earthquake at night occupy the thoughts of many Island residents. Many inhabitants are sleeping outside or in their cars, where you don't have to worry about being trapped if the earthquake severely damages their home. Many residents are wondering when the government will fix the power grid and other critical parts of the infrastructure that have been damaged, such as the water supply, sewage disposal, and the road network on the Island. Clearly, there is a need for government intervention to improve hospitals, schools, and other parts of the social welfare system.

Almost a universal past time has become the thoughts of whether the home you are sleeping in will be strong enough to withstand the next earthquake or for that matter the next set of earthquake swarms. Are you always going to win the game of Russian Roulette that you are playing by sleeping in a damaged home? This is one of the primary reasons that many inhabitants of the Island, as I mentioned above, choose to sleep in cars, tents, or outside of their homes under the stars. In some cases, many houses should be condemned and torn down, but the inspection process is moving very slowly, with everyone crossing their fingers that damaged houses will continue to stand.

It is extremely difficult to imagine 19 earthquakes a day, which is exactly what 7000 earthquakes during 2020 translate to on average. Granted not all of the earthquakes are in the 4.0-3.0 range but a significant number of the 19 earthquakes on a given day will be above 2.0 magnitude and you can definitely feel a 2.0 magnitude earthquake. As it stands, infrastructure and individual property damage may require years to repair, to make roads and homes safe for those that live on the Island of Puerto Rico, and this will be a long and difficult task, assuming there will be a time when the Island stops shaking. Understanding why Puerto Rico is having to deal with this situation is covered by the following website: <https://www.discovermagazine.com/planet-earth/why-is-puerto-rico-being-struck-by-earthquakes>

The Puerto Rico Trench



IMAGERY SUPPORT FOR TRAINING

The Maxar Technologies Company has secured a contract to deliver portable satellite imagery ground systems to the US Army. The company was selected by the US Army Geospatial Center to supply multiple systems that will allow the users to procure critical geospatial intelligence in remote locations. The sole-source contract is worth up to **\$49m** over eight years.

As part of the contract, Maxar has also received two initial task orders with a combined value of **\$8m**. The system to be delivered is called US Army Remote Ground Terminal (RGT). Based on Maxar's Tactical Architecture for Near-real-time Global Operations (TANGOTM) platform, the system can be set up in around one hour. The RGT is designed to procure data primarily from commercial Earth observation satellites. In remote locations, soldiers can use the system to downlink, assess and disseminate this data to support military, humanitarian, and disaster relief missions. The Army calls this program the One World Terrain (OWT). The Trajectory USGIF publication has an extensive article discussing the OWT in the latest edition (<https://www.trajectorymagazine.com/3d-the-future-of-foundational-data/>)

One World Terrain (OWT)

Mission

To support the training needs of echelons Soldier/Squad up through Army Service Component Command (ASCC) by providing a realistic, common, accessible, and automated 3D terrain data set for simulation and, potentially, mission command and intelligence systems, to conduct collective training, mission rehearsal, and execution at the Point of Need (PoN).

Description

The Army's One World Terrain (OWT) delivers 3D global terrain capability and associated information services that support a fully accessible virtual representation of the physical Earth accessible through the Army network. OWT is useable by all simulation trainers that represent the complexities of the Operational Environment (OE) and the multi-domain battlefield in support of training as provisioned through the Army's Synthetic Training Environment (STE). OWT is dynamically rendered at the PoN, leveraging game-streaming technologies enabled by new advances in fiber optic and 5G wireless networks.

System Interdependencies

- Common Synthetic Environment (CSE)
- Integrated Visual Augmentation System (IVAS)
- Reconfigurable Virtual Collective Trainer (RVCT)

The Army is creating a high-resolution virtual world realistic enough to help prepare troops for battles across the globe. The Synthetic Training Environment, or STE, is a 3D training and mission rehearsal tool that brings together live, virtual, constructive, and gaming environments to improve soldier and unit readiness.

Two years ago, as part of the Army's widespread modernization effort, then-Army Chief of Staff Gen. Mark Milley called for a rapid expansion of the service's synthetic training capabilities. An STE cross-functional team, led by Maj. Gen. Maria Gervais was established to help develop next-generation training capabilities. It is most closely aligned with the soldier lethality portfolio, but is also geared toward the other modernization priorities, she told reporters at last year's Association of the United States Army's annual conference.

One World Terrain, also known as OWT, is one of several key components of the new training architecture which will provide an accessible 3D representation of the global operating environment, according to the service. "It is a global, 3D terrain capability that we can pull down, bring in our simulations, simulators, and our mission command information systems, so that units can train anywhere in the world," Gervais said during an interview at Joint Base Myer-Henderson Hall in Arlington, Virginia. The Army's current training environment is based on technology from the 1980s and 1990s, Gervais said. It also has 57 different terrain formats, which creates complications.

"If you have to deploy anywhere and you want to train on that terrain, we had to go ask [base officials for terrain], and then we had to spend months trying to make it work in that simulator," Gervais said. "With this, it's all instantaneous." With the OWT library, any environment that has already been mapped can be accessed by trainees, Gervais said. If the terrain is not in its database "we can go fly either a commercial satellite [or] a drone and capture it ourselves, process it, and within 72 hours or less, bring it in immediately to start training."

The service is using drones and satellite imagery to capture high-resolution terrain footage for the STE and merging those with imaging from the commercial market said Lt. Col. Dylan Morelle, a simulations operation officer who works on One World Terrain. "We could make terrain out [of just **free commercial imagery**], but it would be very low resolution and maybe not useful to most platforms," he said.

One World Terrain is designed to be interoperable with the Army's Integrated Visual Augmentation System, which includes HoloLens augmented reality headsets. The terrain can also be integrated onto a smartphone or tablet, Morelle said. HoloLens headsets are being created by Microsoft and offer a mixed reality heads-up display that overlays simulated imagery in a soldier's view, according to the service. The first squad trainer capability is slated to be fielded in 2021. The team is also employing artificial intelligence and machine learning to create scenarios to train soldiers to overcome complex problems. "The intent is to challenge leaders and units in the human dimension using cognitive performance feedback," Gervais said.

Vricon is a joint enterprise of Saab, a Swedish aerospace and defense company, and Maxar Technologies' geospatial satellite manufacturing division. As a company that specializes in geospatial data processing, Vricon set itself apart by proposing to build One World Terrain off the foundation of high-resolution 3D data already gathered, Isaac Zaworski, vice president of the company, said in an interview. Rather than attempting to implement a system that takes partially complete and misaligned data sets from different sources, the company would instead start from a foundation built off of its high-resolution 3D data. A major focal point of the contract which is worth nearly **\$95 million** is creating and putting one data standard into practice, he said.

<https://ict.usc.edu/wp-content/uploads/2015/08/OneWorldTerrain.pdf>

VOLUNTEER OPPORTUNITY AT SPY MUSEUM

Once the nation is back to work and the current health crises have been contained you might consider this volunteer opportunity. Calling all SPY fans and intelligence experts! The International

Spy Museum in Washington, DC is now recruiting volunteers to join their team. The International Spy Museum Volunteer Program advances the mission of the Museum by providing dependable service and being an approachable resource for guests, staff, and the diverse Washington, DC community. Enjoy meeting new people? Love espionage? You may be a perfect fit for our program. Learn more about volunteering and apply online at <https://www.spymuseum.org/support-spy/volunteer-program/>.

SPY MUSEUM COVID-19 Safety Update

Our Reopening Task Force has developed a comprehensive plan for your group to have a safe and enjoyable experience. Our plan was guided by recommendations from the Washington, DC Mayor's Office, CDC guidelines, and the many industry resources now available.

Washington, DC guidelines evolve daily. Our tour and travel partners should refer to the Mayor's comprehensive coronavirus Web site at coronavirus.dc.gov. For more information on what we are doing to ensure a safe and engaging experience, please [review the tour and travel safety flyer](#).

Volunteer Opportunities

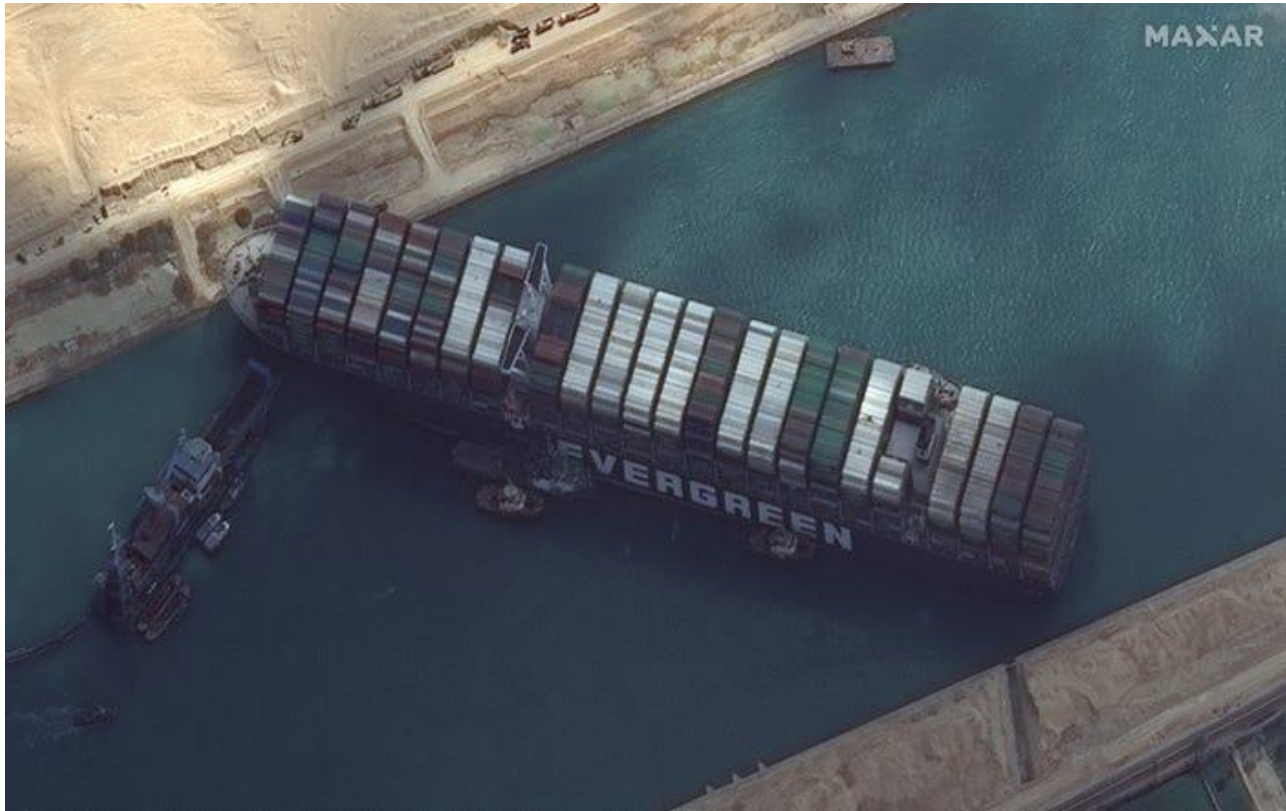
- Welcome guests and assist them in planning and organizing their visit.
 - Answer guest questions at the Information Desk.
 - Prepare groups for missions and educational programs.
 - Surveil the permanent exhibit and engage guests during their visit, including demonstrating Radio Frequency Identification (RFID) technology.
 - Assist and manage the execution of Private Tours.
 - Serve as the final touchpoint for guests in the Debriefing Center.
- *Additional opportunities are available with our Sales and Retail team.

Volunteer Benefits

- Uphold a long tradition of giving back to the local community.
- Provide a critical role in the guest experience.
- Positively impact the reputation of the International Spy Museum.
- Professional development opportunities and Museum sponsored field trips.
- Museum store discounts.
- Exclusive previews and tours of the new Spy Museum at L'Enfant Plaza.
- Two free tickets to the Museum per year.
- Annual Volunteer Appreciation Event.

If you have any questions, please feel free to reach out directly to Kia Hunter, Volunteer Manager, at khunter@spymuseum.org or 202-654-0957.

The Suez Canal blocked by the *Ever Given*



- Since its opening, there have been five closures to the Suez Canal.
- One of these incidents forced the Suez Canal one of the world's most vital shipping routes to shut down for years.
- Experts said the process to dislodge the *Ever Given* the most recent blockage along the canal might take up to a few weeks.

More than 48 hours after a dust storm beached the *Ever Given* container ship across the Suez Canal in Egypt, crews and tugboats are still working to unclog one of the world's key trading routes. Perhaps one of the most pressing issues with the vessel is its absolutely gargantuan size: At 1,300 feet long, the ship is slightly larger than New York City's Empire State Building. If placed vertically, the *Ever Given* would be the world's 37th tallest building, according to a [list of the tallest buildings](#) by the Council on Tall Buildings and Urban Habitat. The largest military aircraft carriers in the world are [colloquially known as "floating cities,"](#) but the *Ever Given* surpasses even them in length and width.

The blockage of the Suez Canal by a massive container ship called the *Ever Given* has become a worldwide shipping crisis. But so far it pales in comparison to other events that brought the canal to a halt in the past. Since Tuesday, the Panamanian-flagged *Ever Given* has been lodged against the width of the canal, causing a massive traffic jam at one of the world's most vital shipping routes. The ship, nearly 200 feet wide and 1,300 feet long, easily took up the width of the channel. It's said to be [bigger than the Empire State Building.](#)

The Suez Canal is an Egyptian waterway connecting Europe and Asia, responsible for facilitating [about 12%](#) of all global trade. Supply-chain experts are now warning that shoppers are likely to see a shortage of items in stores because the ship has been lodged in place for days, blocking hundreds of other vessels from continuing their journeys. "Basically anything you see in the stores" like [coffee and toilet paper](#) will be in short supply, Lars Jensen, an independent container-shipping expert based in Denmark, [told NBC News](#).

The [crisis is costing \\$400 million](#) per hour in delayed goods, [Lloyd's List](#) estimated. Egyptian authorities have attempted to remove the vessel and shift it parallel to the canal to clear up the blockage. But all attempts have so far failed, and experts predict it might take weeks to dislodge and clear the waterway. "We might have to work with a combination of reducing the weight by removing containers, oil, and water from the ship; tugboats; and dredging of sand," Peter Berdowski, CEO of Dutch engineering company Boskalis, said earlier this week.



The Empire State Building is slightly smaller than the large container ship currently blocking the Suez Canal, the ***Ever Given***. As bad as it seems, though, the Suez Canal has seen worse blockages some of which have lasted for years. According to the [Suez Canal Authority](#), which maintains and operates the waterway, the Suez Canal has closed five times since it opened for navigation in 1869.

Blockage for the first time was in 1956 after a British-French-Israeli invasion.

On July 26, 1956, Egyptian President Gamal Abdel Nasser announced the nationalization of the Suez Canal, a decision that mounted backlash from Britain and France. At this time, there was tension between the three countries, according to a [history page published on the State Department website](#). Egypt wanted to nationalize the canal to go against European colonial domination. President Nasser said he was angered by "[the imperialists who have mortgaged our future](#)." Britain and France, on the other hand, were suspicious of Egypt's growing political influence. In an attempt at a solution, the United States proposed the creation of an international consortium that would leave operating powers in the hands of 18 maritime nations, the history page says. All parties declined to support this idea. Britain and France

collaborated with Israel in secret military consultations to take control of the canal from Egypt by force. Israeli forces then attacked an Egyptian peninsula and advanced 10 miles toward the Suez Canal, and British and French troops eventually arrived at the scene as well. That tension along the Suez Crisis led to the canal's closure for months.

Next, Egypt enters a war with Israel and the canal is blocked for eight years.

In June 1967, the canal turned into a battleground between Israel and Egypt as the two nations renewed conflicts. At this point, Israeli forces continued to occupy one Egyptian peninsula. Israel refused to withdraw its forces from the peninsula, despite urges from the United States to do so, according to [another State Department page](#). Israel maintained control of the Suez Canal's east bank. Egypt, attempting to regain control, formed a blockade and shut down the waterway. It wasn't until June 1975, after Egypt and Israel signed a [diplomatic agreement](#), the canal reopened for trade.

After that, there were no major disturbances along the waterway until 2004.

Another ship stopped the flow of traffic through the canal decades later, in 2004. The [Tropic Brilliance](#), an oil tanker, got lodged in the waterway. For three days, the ship was stuck in the mud, and rescuers could not dislodge it. The ship had to be refloated, a process that involves digging out and removing sand from alongside and under the boat to increase the presence of water around the vessel and get it to move.

In 2006, another boat got lodged in the waterway.

Sandstorms and high winds caused the [Okal King Dor](#), a 93,000-ton cargo ship, to drift off at a wrong angle, leading to a temporary blockage in the canal. Tugboats, however, were able to dislodge the cargo ship within eight hours. At the time, about 8% of all global trade went through the Suez Canal, considerably lower than the volume today.

Later, the 120-mile canal was disturbed in 2017 by another ship: the OOCL Japan.

The steering gear on the container ship malfunctioned. The malfunction caused the ship to veer perpendicular to its course and block the canal. Within a few hours, tugboats were able to push it free. Against the backdrop of these five incidents, ***Ever Given*** so far falls in the middle in terms of the length of time a blockage along the canal has ensued.

Suez Canal: A Critical Waterway in the History of Modern Maritime Transport

By John L. Lanier, Jr., NGA, Retired

The recent diagonal grounding of the 1,300 feet long ***Ever Given*** container ship across the Suez Canal is allowing us to review the worldwide importance and past history of this major shipping route. The 120-mile long Suez Canal is physically located in Egypt close to Africa's Nile River. The canal was originally a private venture that was hand dug and opened to small maritime vessel traffic in 1869 as a convenient shortcut from the western Indian Ocean to the Mediterranean Sea and Europe. The northbound approach to the Suez Canal begins at Suez, Egypt from the Gulf of Suez, and the southbound approach begins at Port Said, Egypt on the Mediterranean Sea.

Today, the Suez Canal is controlled by the Egyptian government, which nationalized it in 1956. The Egyptian government ultimately decides the type of maritime vessels and cargo that can transit through the canal. Today's canal can handle ship traffic that moves in both directions in certain regions of the canal. However, large container vessels the tonnage of the **Ever Given** must navigate single file through the narrowest legs of the canal. A Suez Canal pilot said steering a large container like the **Ever Given** is like riding a bicycle on a 2"x4" for several miles. There is very little room for error.

Why is the Suez Canal still a critical and relevant shipping route, which is in the vital interest of maritime commerce? Since its opening in 1869 to vessel traffic, the Canal has been closed five times, as mentioned in the previous article. It was not until 1975 that Egypt and Israel signed a diplomatic agreement, which opened the Suez Canal for trade, which required major salvage operations, navigational upgrades, dredging, and widening of the main shipping channel were actions put into play by the U.S. Navy to fully reopen the canal. The Defense Mapping Agency along with the Naval Oceanographic Office in partnership with the Egyptian Hydrographic Agency produced greatly needed approach and port nautical charts and navigation publications from surveys to safely reopen the canal. The Suez Canal traffic operations returned to normal after salvage operations and improvements.

The U.S. Government's role has been largely one of acting as a mediator and providing a helping hand, where the U.S. Agency for International Development (USAID), State Department, and the Department of Defense (Navy, NGA, Naval Oceanographic Office), US Coast Guard and various contractors have supported the safety of navigation affecting this important shipping route. It is estimated that at least 12% of all worldwide vessel traffic flows through the canal. The Suez Canal ship traffic includes commercial container ships, oil tankers, aircraft carriers, and other Naval vessels.

The recent Suez Canal blockage by the **Ever Given** prompted a DoD response concerning military readiness and our reliance on this vital waterway. Pentagon Press Secretary John F. Kirby said, "Because we've long recognized the fact that narrow waterways like this are maritime chokepoints, we always make sure that we have alternate capabilities to meet mission requirements." He went on to say, "We have recognized the fact that chokepoints like the Suez Canal could suffer blockages like this, and it's factored into just normal operational planning. "Beyond that, Kirby said, the temporary shutdown of the Suez Canal has not caused the U.S. military to rethink its posture in the Middle East or its mission requirements there, because there are already other plans in place for such situations. While the U.S. military does not solely rely upon the Suez Canal during war or peace-time, the U.S. does have an interest in keeping this waterway open and navigable in the interest of worldwide trade, security, and safety on the "high seas."

In summary, NGA and its legacy organizations have a long history of supporting our military and international customers with the latest and most accurate GEOINT worldwide. The Suez Canal's reopening in 1975, after being closed for nearly eight years, is due largely to the efforts of the U.S. Government departments and agencies such as NGA, State Department, U.S. Naval Oceanographic Office, USCG, commercial and international charting and mapping partners, and the host country of

Egypt. During subsequent times, NGA and its partners have been requested to assist host nations in times of crises arising from hazards that threaten the safety of navigation, especially in confined spaces such as the Suez Canal. The Agency constantly collects information such as host nation charts, safety of navigation data, and hydrographic surveys in its efforts to provide our customers the most accurate, timely, and responsive GEOINT in support of its vision: **Know the Earth... Show the Way... Understand the World.**

MEMBERSHIP IN NGAA

We encourage all NGA alumni to join our ranks to maintain and deepen your professional and social contacts with the friends and colleagues you made from your time with the agency. Unfortunately, we can no longer offer the free membership underwritten by the Constellation Federal Credit Union as that institution has been absorbed by another credit union, which will not offer that same benefit. The NGAA-East Executive Committee is currently looking at other partners and sponsors who can offset some of our operating expenses and perhaps expand the services and experiences we can offer to our members. For a minimal cost of joining (\$40 for a lifetime membership) you get all this and more:

- Periodic newsletter to stay in touch with activities involving all NGAA and other alumni groups
- Roster with contact information of all members (not to be shared outside the membership)
- Spring and fall luncheons, one or both of which are held at NGA at their invitation.

These luncheons typically coincide with award ceremonies and/or optional unclassified update briefings. The Annual NGAA-East selection of an "NGA East Employee of the Year," from NGA nominees who have contributed significantly to the Agency's mission and their community. Selection is from NGA Campus East nominees:

- Opportunity to serve on committees that will interact with NGA on a variety of topics
- Opportunity to serve on committees that will interact with the United States Geospatial Intelligence Foundation (USGIF) on a variety of topics
- Opportunity to have input on issues brought to NGAA-East by NGA, e.g., development of an annual calendar to mark Agency milestones
- Opportunities for professional contributions to NGA's Pathfinder magazine as well as submissions to NGA paper/electronic internal employee communication capabilities
- Official venue to provide artifacts and/or memorabilia about NGA and predecessor organizations to NGA, USGIF, the Spy Museum, and others
- Support to NGA exhibits and displays
- Ability to nominate U.S. persons and/or allied partners to the Geospatial Intelligence (GEOINT) Hall of Fame
- Interface with other Intelligence Community alumni groups through the Intelligence Community Alumni Network (ICAN); provides additional linkage with former colleagues § Access to Chapter information (and applications) at www.ngaaeast.org.

There are also multiple educational and social events throughout the year to include tours, lectures, wine tastings, and happy hours.

IN LOVING MEMORY

We are always saddened to learn of the deaths of our long-time members as well as spouses, friends, and colleagues with whom some of us have worked throughout our careers. Our heartfelt condolences go out to their loved ones, and friends. Please keep them in your thoughts and prayers.



William Lloyd Nicholson III, 94,
Alexandria, Va., died at his home
Wednesday, Nov. 25, 2020

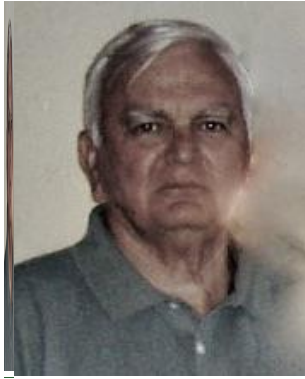
Nicholson was born in St. Louis, March 9, 1926, to William L. Nicholson Jr. and Irene Ramspott. Maj. Gen. Nicholson, Bill to his friends, moved to Union with his parents and sister, Mary (Cohagan), when he was 14. There, he met the love of his life, "Windy," and became active in all team sports at Union High School. Notably, his basketball team won the 1943-1944 state championship for the first and only time. Two hours after graduation in May of that same year, he entered military service as an aviation cadet in the U.S. Army Air Forces. At the end of World War II, he returned to civilian life, playing shortstop for the St. Louis Cardinals' AAA team.

When he married Windy in 1947, he began his college studies, and in June 1950, graduated from St. Louis University's Parks College with a Bachelor of Science degree in both aeronautical engineering and meteorology. He later had a distinguished military career and was appointed to be the Director of the Defense Mapping Agency in July 1979, until his retirement July 1, 1981. Maj. Gen. Nicholson's military decorations and awards include Legion of Merit with oak leaf cluster; Distinguished Flying Cross; Air Medal with oak leaf cluster; Air Force Commendation Medal with two oak leaf clusters; Army Commendation Medal; Presidential Unit Citation emblem; and Republic of Korea Presidential Unit Citation.

In retirement, Maj. Gen. Nicholson continued his love of sports through coaching his grandsons in baseball and playing golf weekly until age 92, averaging 10-plus strokes below his age. He was also very active in church activities at Messiah Lutheran in Alexandria, Va., his church of 55 years. He is survived and will be greatly missed by his daughters, Beverley Benda (John), Alexandria, Va., and Diedre Nicholson Lamb, Springfield; grandsons, Jason (Caitlin), Wm Nicholas Lamb and Joshua Lamb; and great-grandchildren, Carson, and Jocelyn Benda.

He was preceded in death by his beloved wife of 58 years, Wanda Loyd Nicholson.

Burial at Arlington National Cemetery will be made at a later date.



On the evening of December 27, 2020, **B. Louis Decker** (age 87) passed away in the Palliative Care Unit at Missouri Baptist Medical Center, St. Louis, MO.

He was preceded in death by his parents, Louie Willard Decker and Ethel Frances (Beights) Decker, and siblings, his older sister, B. Imogene Decker, and younger brother, Charles Leroy Decker

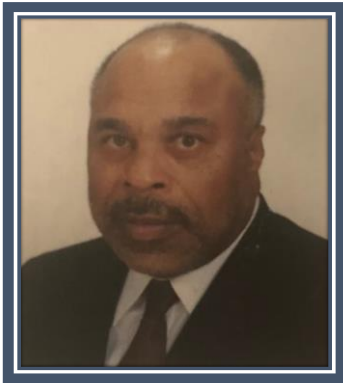
Survivors include his wife of almost 60 years, Sandra (Evans) Decker, a daughter, Lisa Marie (Decker) Ofstedal (Marc Ofstedal) of Ballwin, MO, and a son Neil Evan Decker (Cathy Stephenson) of Ventura, California and also include his three grandchildren, Emily (Ofstedal) Mertens (Brett Mertens) of Wentzville, MO; Mathew Decker (Leonardtwn, MD) and David Decker (Ventura, CA), and one great-grandson, Rowen Ryan Mertens (Wentzville, MO).

Louis (Lou) was born on a farm in Acorn, Missouri September 10, 1933, where he attended a one-room school. The family later moved to the Palatka community near Success, Arkansas where he attended a two-room school, then graduated from Corning High School at age 16. He went to college at ASTC (Arkansas State Teachers College) majoring in math. With \$20 he hitched a ride and got a job in Rockford, Illinois to work in a factory when ASTC was not in session. He was drafted and served in the Army (1954-56) followed by Inactive Reserves for 6 years. After graduating from ASTC he began his career with the Aeronautical Chart and Information Center (ACIC) in St. Louis, MO in 1958. During this time, he also attended Ohio State University for his master's degree in Geodesy in 1965, and later completed all the coursework for his doctorate, but was unable to find time to write his dissertation due to work priorities.

During his career (1958–1988) he felt privileged to serve his country in a civilian capacity. His advanced education allowed him to work on critical programs, publish numerous technical references and he completed work for and served as chairman of the World Geodetic System 1984. His contributions transformed global navigation provided geodetic and geophysical support data and analyses for missiles, aircraft, spacecraft, and the Global Positioning System (GPS).

Lou retired from DMA Systems Center (DMASC) in September 1988. At his retirement, he received the DMA Meritorious Award, the second-highest honor bestowed on Defense Mapping Agency employees. On 3 October 2016, Lou was inducted into the National Geospatial-Intelligence Agency (NGA) Hall of Fame for his outstanding leadership and contributions to technological innovation in support of NGA's research and development program.

CELEBRATING HIS SPIRIT



FELTON MITCHELL

SEPTEMBER 28, 1944 – MARCH 6, 2021

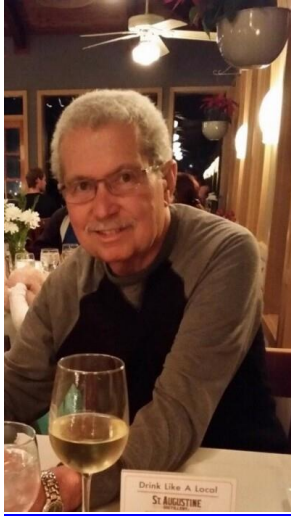
Felton Mitchell, born September 28, 1944, in Lisbon, Louisiana. Died on Saturday, March 6, 2021.

Felton Mitchell was born on September 28, 1944, in Lisbon Louisiana, and was the third child born to the late General Scott Mitchell and Pinkie Burse Mitchell.

Felton graduated from Pineview High School in Lisbon Louisiana in 1962. Felton later earned a Bachelor of Science Degree in Mathematics and Biology from Grambling State University in 1967, and a Master of Arts in Business Administration in 1975. He had a distinguished civil service career with the Defense Mapping agency, ultimately retiring after 33 years of service in 2001. Amongst numerous outstanding service awards during his career, Felton was recognized by DoD for Exceptionally Meritorious Service for his support of Operations in Bosnia, Iraq, Afghanistan, Sudan, Kosovo, and Serbia.

Felton is survived by his four children, Tanya, Karen, Keith, and Kristina; and three brothers, James, Joseph, and Herron; and seven sisters, Pat Smith, Zelma Cooper, Delois Jones, Irene Farrar, Mildred Brown, and Thelma Mitchell; two grandchildren, Mikayla Mitchell, and Shaye Mitchell.

Felton was preceded in death by his parents, General Scott and Pinkie Burse Mitchell, and two sisters, Geneva Smiley and Marze Miller



Mario Joaquin Tristani, Sr. (78), of Palm Coast, Florida, peacefully passed after a five-plus year battle with prostate cancer on Sunday, January 24, 2021. He is the son of the late Carlos, Sr. and Thelma Tristani. Mario is preceded in death by his brother Carlos Tristani, Jr., brother Enrique Tristani, and his stepson Ray Thompson III.

Mario, a Washington, DC native, retired from the Defense Mapping Agency (aka National Geospatial-Intelligence Agency) after 37 years of service as a program manager at headquarters. Mario spent his retirement enjoying RV-ing with his wife Vicki, camping with his grandchildren, playing his guitar for friends and family, and serving as a volunteer special deputy in the PSO program for the Citrus County Sheriff's Office.

Mario is survived by his beloved wife Vicki of 36 years, adoring daughters Carole (Scott) and Dawn, proud son Mario Jr., brother Ron Tristani, 9 precious grandchildren Trea (Alissa), Natalie, Scott, Amanda, Gabrielle, Matthew, Daniel, Caroline, Parker, and 3 cherished great-grandchildren Zane, Scarlett, and Kensley. Special nephews Carlene Tristani, Eric Tristani, and niece Valerie (Leigh) and many cousins, nieces, and nephews. Also, Marley, his beloved pup, and Savannah and Romeo, his beloved cats.

With gratitude and appreciation, Mario's wife and family thank Adventist Health Palm Coast, Stuart F. Hospice House, their caring staff, and nurses for their remarkable physical and emotional support. A special thank you to Marie Laramore, RN, who attended to Mario's health with expert professionalism and a genuinely caring heart.



Kenneth C. Barnes, Jr., known as "Ken" to friends and "Tuck" to family, age 83, died on March 26, 2021. He passed away at Meritus Medical Center in Hagerstown with his beloved wife, daughter, and son at his side.

He was the loving husband of 56 years to Anne Elizabeth (Betty) Barnes.

Ken was born on November 7, 1937, the oldest of three children, to Kenneth Christian Barnes, Sr. and Lena Mae (Goss) Barnes. Born at a doctor's office in Bethesda, MD, he grew up in Glen Echo, MD with his parents and two younger sisters, Verna and Shirley. Ken was drawn to the Catholic faith at a young age while attending Catholic Mass and playing basketball after church on Sundays with friends. Graduating from Montgomery College with an electrical engineering degree and later from the University of Maryland with a degree in Business Administration, Ken also served in the U.S. Coast Guard Reserve. While working as a defense contractor for Melpar, he designed and built an antenna for his team that was installed in the Mercury space capsules. One of those capsules is in the Smithsonian Air and Space Museum today. Afterwards, he spent the next 30 years working for the Army Map Service (also known as Defense Mapping Agency, NIMA, and most recently, NGA) with some interesting jobs, one of the most rewarding being the Department Chief of Graphic Arts for the Hydrographic/Topographic Center. He received many awards during his time at DMA, including the Distinguished Civilian Service Award and the Meritorious Civilian Service award, the highest two awards the agency could bestow on civilians.

Upon retirement, Ken enjoyed golfing and fishing, traveling with Betty and their close friends and family, and spending winters in Dunedin, Florida with their good friends. He lived a full life and is survived by his beloved wife, Betty, their children, Brent (Jeanette) Barnes, Melanie (Dan) Goggin; six grandchildren; his sisters, Verna (John) Barnwell, Shirley (Ed) Parsons; and many nieces, nephews; grandnieces and grandnephews.

WELCOME NEW MEMBERS!

We are pleased to welcome the following eleven new members who joined our ranks since our last publication.

Mr. John C. Minto

10246 Arbor Side Drive
Tampa, FL 33647

(703) 303-4163 (Di)

e-mail: BOOMFA@GMAIL.COM

Retired: 8/1/2018, NGA Member since:
12/15/2020

Mr. John A. Wakefield

3998 Peregrine Ridge Court
Woodbridge, VA 22192

(703) 580-8747/(571) 274-6439 (c) (Mei)

e-mail: Wakefieldjm@verizon.net

Retire: 2/28/2021, NGA Member since:
1/28/2021

Ms. Jennifer A.K. Daniel

9203 Beachway Lane
Springfield, VA 22153

(703) 451-7154/(571) 278-9464 (c)

e-mail: jakdaniel2021@gmail.com

Retired: 1/2/2021, CIA, NGA. Member since:
12/26/2020

Mr. John L. Lanier

5634 10th Avenue South
Birmingham, AL 35222

(205) 591-1909/(205) 533-3502(c) (Betty)

e-mail: John.L.Lanier@gmail.com

Retire: 1/3/2005, NGA Member since: 3/24/2021

Ms. Sharon Stanish

20426 Casablanca Drive
Ashburn, VA 20147

(703) 346-1306 (c)

e-mail: sss8012@verizon.net

Member since: 12/18/2020

Paula J. Roberts/LJ Roberts

26113 Kitsburrow Court
Georgetown, DE 19947

(302) 664-1180 (LJ Roberts/Paula)

e-mail: pjr1956@aol.com

Retire: 12/21/2011, NGA Member since: 3/25/2021

LTC(R) Robert A. Zebell

4305 Hollowview
Fairfax, VA 22032±

(703) 764-9478 (Helgard)

Email: hzebell@verizon.net

Retired: 2007, NGA Member since:
1/10/2021

Ms. Tara P. Bradburn/James K. McAlary

8900 Jameson
Lorton, VA

(571) 331-6974 (c) (Jim/Tara)

e-mail: TBC90@aol.com

Retired Tara-8/31/2020, NGA/Jim, currently employed,
NGA

Members since: 4/5/2021

James K. McAlary (Reference: Ms. Tara P. Bradburn)

Mr. Rick W. Gehring

8144 Willow Bloom Circle
Las Cruces, NM 88007

(575) 202-3631 (c) (Lynnea)

e-mail: sonomarin@comcast.net

Retired: 07/2017, NGA/CIA Member since:
1/16/2021