

VOLUME 27, ISSUE 2

Newsletter of The Huntsville Division Alumni Association

May 10, 2022

#### Next Board Mtgs:

(2ndThurs each qrtr) Jul 14, Oct 13, 2022 <u>2:30 pm</u> Faith Presbyterian Church, SE corner of Whitesburg/Airport... *Come bring some ideas for recruiting new, young members!* 

Dates to Remember: 2022 -5/28: Picnic Grn Mtn

10 am-3 pm Fall Luncheon TBD

-12/3: Christmas Party @ Magnolia Trace.

Specific details will be provided closer to the date of the event.

## Monthly:

**1st Wed**: Ladies lunch, 11:00, Gibson's BBQ/S. Mem. Pkwy. <u>Tentative plans are to</u> <u>meet for lunch 1 June</u> @ 11 a.m. If you want <u>To attend, please call</u> <u>Patti @ 534-9702 by</u> <u>5/24/22.</u>

<u>3rd Wed:</u> Lunch at Logan's/Balmoral 12:00. Call/email Jim Gasaway for details: djgas@att.net. Please give enough lead time to provide Logan's an accurate head count.

If there is interest in forming another regular meeting group/time, please let editor know so it can be listed here! Always nice to see old friends!

# Get Ready for BBQ on Green Mountain!

The Summer Picnic will be held at the Green Mountain Nature Trail pavilion on **Saturday, May 28, 2022**. The pavilion is ours **10 a.m. to 3 p.m., with lunch being served ~12:00**, with delicious Lawler's BBQ, buns, slaw, baked beans, potato salad, beverages, cookies.

Cost will be **\$8.50/person**, with **paid reservations being required by 5/23/22** for Ron to notify Lawler's for food preparation. Reservations may be submitted **to HDAA**, **P.O. Box 4185**, **Huntsville**, **AL 35815-4185**.

Ron wants to reassure All there's plenty of fresh air, overhead fans if it's hot, the pavilion is covered in case of rain, and mask only if you feel it necessary. Believe most have been vaxxed and boosted (some twice!), so it's safe to be "normal" again. No reason Not to come!

Come early and walk the Trail; stay late and get caught up with good friends!

Looking forward to seeing you All there!

## Strengthening Missile Defense Through Suborbital Target Vehicles Detecting, Identifying, and Defeating Ballistic Threats

"A suborbital target vehicle, as its name implies, is a rocket flying a suborbital trajectory that's been programmed to simulate an incoming enemy missile," explained Mike Pudoka, director of engineering and chief engineer for target systems at Northrop Grumman. "We use these rockets and the payloads they carry to test the ability of the nation's Ballistic Missile Defense System (BMDS) to detect, characterize and intercept incoming threats." Northrop Grumman's suborbital target vehicles simulate missiles ranging from intercontinental ballistic missiles to shorter range, theater-based threats, he added.

One of the company's most significant suborbital target vehicles for the U.S. Missile Defense Agency (MDA) is the Intermediate Range Ballistic Missile (IRBM) target, Pudoka noted. IRBM is dropped by parachute from a C-17 transport, then ignited in the air. "The most powerful aspect of IRBM is that we can launch it from anywhere to anywhere following any trajectory the customer desires," he said.



"We're not constrained by the location or launch orientation of any ground-based facilities." Most of these targets are flying against ground- or ship-based interceptors, such as the Navy's Aegis systems or the Army's Patriot system, added Pudoka.

Northrop Grumman custom designs every target to simulate the behavior of a particular, customer-specified threat. However, it's common to build the targets from proven, previously



However, it's common to build the targets from proven, previously tested parts. "Our Patriot target vehicle uses decommissioned Minuteman motor stages, and our Medium Range Ballistic Missile T3c2 target for MDA uses a decommissioned Navy motor as the first stage and a decommissioned Air Force motor for the second stage," offered Pudoka. The targets group, added Rallison, designs and produces all of its own avionics.

"We start with a library of proven avionics, but our system level design is always a clean sheet. Every new target stretches the performance envelope, doing things that have never been done before," he said. But lest anyone think that suborbital target vehicles are nothing but "dumb, clay pigeons," Pudoka has news for you. *(Continued on Page 3)* 

MAY 10.

## SPRING BREAKFAST "DO-OVER!"

You may recall the original Spring Breakfast event had to be cancelled due to snow conditions, but it was rescheduled for April 30th. Only 35 people were allowed by Brookdale's corporate office, but, those who were there certainly seemed to enjoy visiting with one another! Many Thanks to Brookdale at Jones Farm



## CHANGE OF ADDRESS/PHONE??

If you have moved to be closer to other family, or Your Board completely understands not every dropped your landline in favor of your cell phone, or member has a computer to access online notices, made changes for Any reason, please let a Board nor receive emails, so a current phone number member know so our records may be brought up to would be helpful in such situations. date.

a hurry (such as the most recent cancellation of the we can keep in better touch with you. Thanks! Spring Breakfast due to snow conditions). When we can't reach someone, they may have taken the time to prepare for and go the event, only to find it has been cancelled! We certainly don't want anyone to be inconvenienced in that way.

If you have changed your address or your phone We may need to get in touch with the membership in number, please let a HDAA Board member know, so

AT ANY GIVEN	THIS IS NOT
<b>MOMENT YOU</b>	<b>HOW THE</b>
HAVE THE	<b>STORY IS</b>
POWER	<b>GOING TO</b>
TO SAY,	END.

## VOLUME 27, ISSUE2

## FRIENDS IN THE NEWS....

A headline in the HSV Times on April 8 announced the retirement of Rick Tucker (son of HDAA's **Jim Tucker**/TC-HD Purchasing), CEO of the HSV Airport Authority (HAA). Retirement will be in a few months, after over 40 years at the HAA, with major accomplishments during his tenure/leadership. Jim, who passed in 2020, was extremely proud of both his sons, with good reason. Check out the article.

**Carroll Bobb** seems to thoroughly be enjoying retirement and family birthday events! *All this love and laughter will keep you young, Carroll. Enjoy!* 



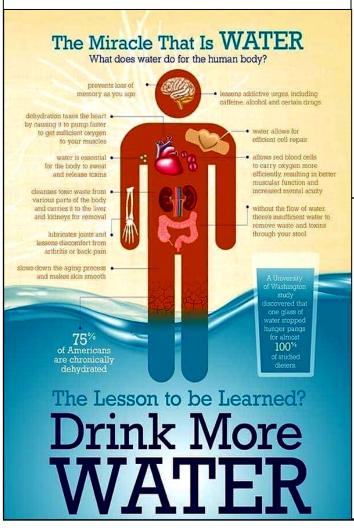


At Left is Taska Clark helping her mom celebrate Mother's Day!

Happy Mother's Day to you both and to All other nurturing "moms!"

...For the Water Doubters...

Most of us simply don't drink enough water. Here are 10 simple reasons why you should. There are Many more!



## NG Suborbital Target Vehicles (continued)

"Targets are absolutely flying laboratories whose instrumentation tells us and our customers what's true about the capabilities of the system being tested," he said.

"If that system believes the target's location is X, but our target indicates that its location is Y, we need to understand that difference as a way to measure the effectiveness of the system under test."

Northrop Grumman also produces suborbital target vehicles that simulate cruise missiles designed to test the defenses used to protect ships while flying as low as 15 feet off the deck.

"The GQM-163A Coyote is a supersonic, sea-skimming target we've been producing since 2000," said Mike Couture, chief engineer for that program. "We also build a high-diving variant that starts at up to 50,000 feet, then dives onto the target at speeds approaching Mach 4."

During a test, he explained, the Coyote is launched on a ballistic booster from a Mk 7 missile ground launch system.

"After six or seven seconds, the vehicle separates, and an air-breathing ducted rocket takes over. The target vehicle then descends to its cruise altitude, which can be anywhere from 15 to 50 feet above the ocean," he said.

As with other types of suborbital target vehicles, Couture continued, the customer defines the test requirements, then Northrop Grumman designs a target that can simulate the desired cruise missile behavior. "Over the last 20 years," he enthused, "we've evolved the GQM-163A from a straight-flying target with essentially no maneuvers to now not only a high-diving variant but also a target that can perform high-G turns, either in azimuth (side to side) or elevation (pitching up and down). We've also added spiral maneuvers, payloads with different radar cross sections, and electronic countermeasures to challenge Navy shipboard electronic and kinetic defense systems."

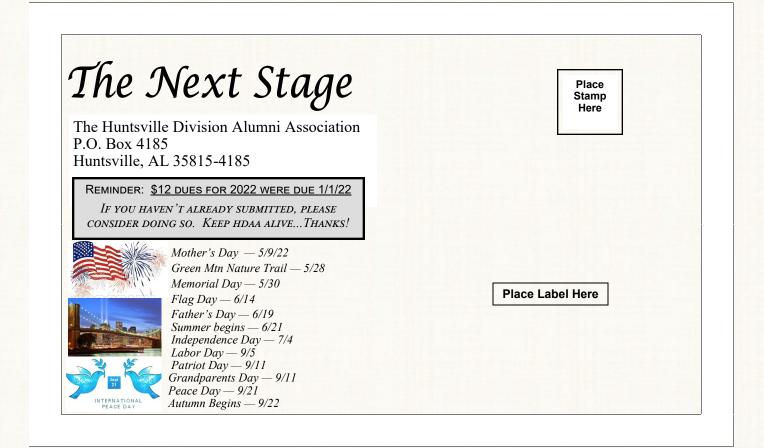
(Excerpt from Northrop Grumman News Release) Editor: I feel safer now!

**Thiokol-HD** archives are housed at the Huntsville Madison County Public Library. If you haven't been by to peruse them, you should! Lots of interesting photos and articles. Stop by and enjoy. Ask at the front desk as you enter the library, and they can direct you to the archives.

The **Thiokol Plaza** is completed and about to get a third tree and signage to mark the plaza. Take a short walk to the plaza and reminisce about the Division's success stories! The plaza is located just outside Gate 3, where many employees entered Redstone Arsenal. Plenty of parking space is available at Bell Mountain Park, and it's a relatively short, paved walk to the plaza site, and benches, too.

Mike Ferguson salvaged the "Final Plant Lock," which we hope to affix to the plaza Thiokol Historical Marker. That will make a nice addition to the site.

Enjoy a pleasant trek before the weather gets too hot!



#### VOLUME 27, ISSUE2

The Next Stage is the quarterly newsletter publication of the Huntsville Division Alumni Association, Inc. Distribution: approximately 100. (FYI: Started with ~350 27 years ago.) Editor: Patti Wilson.

Its address: HDAA, POB 4185; Huntsville, AL; 35815-4185.

The 2022 HDAA Board consists of : President/Tom Bryant, VP/Ray Zimmerman, Secretary/Cecil Stokes, Treasurer/ Membership/Charlie Thomas. Directors: (22) Bill Barnes, (22) Jim Gasaway, (22) Juanita Roberts; (23)Ron Clements, (23) Benny Pittsinger, (23) Glenn Webb; (24) Jan Kranert, (24) Gerald Roberts, (24) Patti Wilson.

Ex-officio members of the Board are: Historian, and Cecil Stokes/WebMaster.

Contact Cecil for details about the HDAA website and FaceBook page and how to view more photos in color!

See you at the Green Mtn. Nature Trail pavilion Sat., 5/28, 10:00 a.m.- 3:00 p.m. Come early and walk the trail. It's beautiful!

#### THE NEXT STAGE

MAY 10, 2022

# In Fond Memory...

We join the families in mourning the loss of family, friends and prior coworkers:

Bryce Brubaker: Worked in Engineering, Section 432.

Hershel Sneed: Worked in the Chemistry Lab, Section 472.

They will be sorely missed by us all, since they truly touched our lives. Our heartfelt sympathy to those who have lost other loved ones, as well.



*Sometimes the poorest man leaves his children the richest inheritance.* - Ruth E. Renkel

When old people speak it is not because of the sweetness of words in our mouths; it is because we see something which you do not see. - Chinua Achebe

> Pleasant words are as a honeycomb, sweet to the soul and health to the bones. - Proverbs 16:24 (KJV)

Life was a lot more simple when what we honored was father and mother rather than all major credit cards. - Robert Orben