NO FALL LUNCHEON...Hopefully in October?

CV19 has again robbed us of one of our enjoyable events...the Fall Luncheon, usually held at Brookdale at Jones Farm in early September each year. It has been cancelled to maintain safety precautions for some of the most vulnerable to CV19: us. We look forward to the day when life can resume more normally.

But, DON'T DESPAIR! We may have an event before you know it: Ron Clements has reserved the Green Mountain Nature Trail Pavilion for 17 October...just in case we CAN get together. We'll keep you posted either through the HDAA Facebook page, or the HDAA Info List via email.

Positive thoughts for a CV19 vaccine, good weather...and we're at Green Mtn! We miss seeing our Thiokol family.

(Note from Editor: CV19 has truly upset schedules. If not for seeing Gerald and Juanita Roberts at a local [safe] restaurant recently, we might have forgotten entirely about the newsletter. Thanks to you both! Almost didn't recognize you behind those masks.)

U.S. ARMY/HUNTSVILLE, AL & NORTHROP GRUMMAN (NYSE: NOC) HAVE SUCCESSFUL IBCS TEST @ WHITE SANDS, NM

Shown below, a Northrop Grumman-produced Engagement Operations Center (EOC) and Interactive Collaborative Environment (ICE) emplaced at White Sands Missile Range, New Mexico for the IBBCS Limited User Test. [Source: U.S. Army, Huntsville, AL, 13 Aug 2020]

The U.S. Army successfully engaged multiple targets during a flight test using the Northrop Grumman Corporation Integrated Battle Command System (IBCS). The test, conducted as part of the IBCS Limited User Test (LUT), demonstrated IBCS’ ability to maintain continuous track custody of the targets, despite contested environment conditions, by fusing data from multiple sensors.

"We are extremely pleased with how IBCS performed during this flight test," said Kenn Todorov, Vice President and General Manager, Combat Systems and Mission Readiness, Northrop Grumman. "We have been working on an extraordinary command and control system in partnership with the U.S. Army, and our goals are the same - to get this capability into the hands of the warfighter as soon as possible."

The first of two planned operational flight tests was conducted at White Sands Missile Range, New Mexico by the soldiers from the U.S. Army 3rd Battalion, 43rd Air Defense Artillery (ADA) Regiment. The test's defense laydown included an Air and Missile Defense task force including two Battery and 1 Battalion engagement operations centers, two Patriot and Sentinel radars, and three Patriot Advanced Capability Three (PAC-3) launchers connected at the component level, to the IBCS Integrated Fire Control Network (IFCN).

The test began when two cruise missile surrogate threats were launched and flew at a low altitude in a maneuvering formation through a mountain range towards defended assets.

(continued on Page 3)
**A Sign of the Times!**

No Spring Breakfast, no Summer Picnic, no Fall Luncheon....BUT! Your HDAA Board keeps on keepin' on with Zoom Meetings, working on the Thiokol Greenway in South Huntsville, and many other projects.

July Zoom Board Mtg.
Clockwise, L-R: Don/Patti Wilson, Cecil Stokes/Glenn Webb, Sam Zeman, Harold Whitesides, Ron Clements, Tom Bryant.

Business accomplished, all from the comfort of home. *(Could get used to that...)*

Still want to get involved in those UAH Thiokol/Archive Interviews? Contact either Cecil Stokes/cstokes@hdaa.info or Glenn Webb at glennwebb@comcast.net and let them know you are interested. They will schedule an opportune time for your interview which will become a permanent part of Thiokol/Huntsville Division's archived data. *Your kids/grands will thank you!*

**Friends In The News...**

**Great Article Idea for Newsletter!**

Liz Zeman suggested that folks (who might be interested) send in a paragraph or two about what they did during our CV19 lockdown to stay busy, happy, sane. It could be serious, humorous, or wildly imaginative. Please send articles to PattiKat2@aol.com or call Patti at 256/534-9702. *Thanks, Liz!*

Appreciate you thinking of us and reaching out.

Your Board has been diligently working on getting a Thiokol Greenway in South Huntsville, to help preserve TC/HD history. Spear-headed by Cecil Stokes and Glenn Webb (and Glenn’s son, who works on the City Planning Commission). The Thiokol Greenway photograph is a depiction of the proposed permanent sign to be the highlight of a sitting/observation area, depicted immediately below.

At some point, we may consider a possible covering for the area, as well as memorial brick pavers. And, we may consider minor landscape efforts around the cement base.

Your HDAA Board has already approved subsidizing the major costs. But, if you are interested in donating to the cause, contact Cecil at 256/881-2578, Glenn at 256/881-3645, or Tom Bryant at 256/883-0242.

What a huge feeling of pride knowing you are a part of preserving Thiokol’s history in Huntsville!

More color photos may be found on HDAA’s Facebook page!

*Thanks, Cec/Glenn!*

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**THIOKOL GREENWAY**

In 1949 Major General Tophy, Deputy Commanding General of the Army Ordnance Command, sent a letter to Thiokol Chemical Corporation requesting that it establish facilities on 1,028 acres of Redstone Arsenal to support the U.S. Army in research, development, and production of solid-propellant rocket motors for the Army’s tactical missile systems. This mission was accomplished and expanded to include all military services and NASA’s space programs. During the mid 1950s, Thiokol was the leading employer in Huntsville with over 2,200 people. Thiokol became a world leader in solid rocket propulsion during its 43-year presence at the Arsenal. Thiokol provided a variety of both missile and space rocket motors to the Army, Navy, and Air Force as well as space launch motors for NASA. Rocket motors developed and produced for defense systems included Hermes, Sergeant, Nike Hercules, Saturn, Nike Zeus, Spartan, Pershing, Patriot, Sidewinder, Maverick, Talon, Hellfire, TOW2, MIM7, and Standard Missiles. Space motors included the Centaur series of strap-on boosters of various sizes.

In the early 1990s, five major solid rocket motor companies with 12 plants were vying for cyclic federal defense and space funding. Industry consolidation involved closing six plants including Thiokol’s Huntsville Division in 1994. The parent organization has changed ownership several times and has become part of Northrop Grumman Corporation.

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*As you face west looking across Haysland Road, the Thiokol facilities were just beyond the trees inside the Arsenal boundary.*

1949 - 1996
IBCS fused real-time data from all sensors into a single, accurate composite track for each threat. The soldiers were presented with engagement solutions computed by IBCS which were then executed. The soldiers launched two PAC-3 missiles controlled by IBCS that successfully intercepted both threats. IBCS was able to perform all functions successfully despite being subjected to contested environment conditions designed to disrupt the IFCN network, demonstrating the resilience and survivability of the system.

The Limited User Test, which comprises several tests, is intended to simulate realistic warfighting operations and place performance stresses on the systems to ensure it will perform as intended under the most rigorous circumstances once deployed. This LUT is conducted to inform a Milestone C decision which will transition the IBCS program into the production and operational testing phase.

IBCS utilizes multiple sensors and effectors to extend the battlespace, engage threats providing 360° protection, increases survivability by enabling early detection and continuous tracking, and delivers transformational warfighting capabilities to defeat an increasingly complex threat.


AN ARROW CAN ONLY BE SHOT BY PULLING IT BACKWARD. SO WHEN LIFE IS DRAGGING YOU BACK WITH DIFFICULTIES, IT MEANS THAT IT’S GOING TO LAUNCH YOU INTO SOMETHING GREAT. SO JUST FOCUS, AND KEEP AIMING.

Some folks just Know how to enjoy life. Bet that shark gave you a good work-out! Have fun, Nancy Webb!

Fun Always follows Chuck and Patti Anderson!

Donald & Kellie Clement and friend enjoying the vegetables of their labor. Tomatoes as tall as they are and huge squash (?). Looks like you got your dad’s green thumb, Kellie! Great work. Set out extra forks.....
The Next Stage
The Huntsville Division Alumni Association
P.O. Box 4185
Huntsville, AL 35815-4185

REMINDER: $12 DUES FOR 2020 WERE DUE 1/1/20.
IF YOU HAVEN'T ALREADY SUBMITTED, PLEASE CONSIDER DOING SO SOON. THANKS!

Vol. Sep 7 — Labor Day
Fri, Sep 11 — Patriot Day
Tue, Sep 22 — First day of Autumn
Mon, Oct 12 — Columbus Day
Fri, Oct 16 — National Boss Day
Thu, Oct 31 — Halloween
Sun, Nov 1 — All Saints Day
Sun, Nov 1 — Daylight Savings Ends
Wed, Nov 11 — Veterans Day

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The 2020 HDAA Board consists of: President/Tom Bryant, VP/Gerald Roberts, Secretary/Cecil Stokes, Treasurer/Membership/Charlie Thomas. Directors: (20) Ron Clements, (20) Harold Whitesides, (20) Sam Zeman; (21) John DeHaye, (21) Don Royston, (21) Patti Wilson; (22) Bill Barnes, (22) Jim Gasaway, (22) Paul McFall.

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

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

Keep thinking positive thoughts that CV19 will be squelched and we can get together at Green Mountain Trail on October 17!

The Next Stage
September 1, 2020

In Fond Memory...

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

Gordon S. Streeter: Son of Forest, who worked in Engineering.
Dr. Carl Powe: Consultant working logistics (COPICS) in Production.
David K. Turner: Son of Dave Turner, who worked in Program Management.
Daniel Avon Young: Who retired from Morton Thiokol as Plant Manager.

They will be sorely missed by us all, since they truly touched our lives. Reach out to our Thiokol family members who may be suffering some way. You may be the light they need to brighten their lives.

Things I'm Super Good At

1. Forgetting someone's name 30 seconds after they tell me.
2. Running. Late, that is.
3. Making plans...then regretting making plans.
4. Thinking of a great comeback — an hour later.
5. Digging through the trash for the food box I just tossed, because I already forgot the directions.
6. Adding items to online carts. Then deleting.

Thanks for submitting, Nancy Webb. We ALL need some laughter today!

7. Googling my ailments. Then panicking.
8. Leaving laundry to wrinkle in the dryer.
9. Forgetting why I walked into the room.
10. Calculating how much sleep I'll get if I can just "fall asleep right now".