The color of the late spring sky matches the metal panels Jim Franko is constructing inside of the SpaceWorks building on North Whiteside in Hutchinson. The “retired” craftsman is busy assembling 35 individual panels of diligently hand-made toggles, dials and switches. Eventually, all of these pieces will come together to make the inside of an Apollo Command Module for a new international, traveling space exhibit set to open in central Europe this September.

Mr. Franko references NASA blueprints and old photos to accurately build the panels. His goal, just as the rest of his team, is to build something that looks “real enough to work”.

“Who else gets to do this kind of stuff?” Mr. Franko asks. “This is art!”

For the international exhibit titled Cosmos Discovery, SpaceWorks was commissioned to build six replicas. In addition to the Apollo Command Module, the artists, engineers and machinists who make up the restoration and replication division of the Cosmosphere have been building a Lunar Rover Vehicle, a Shuttle cockpit, a Mars Explorer Rover, a Mercury spacecraft and a chimp couch.

Don Aich echoes his co-workers sentiments. “It’s so cool when even an astronaut can’t tell that something is a replica,” he says.

Mr. Aich is working on the molded fiberglass exterior of the Apollo module, painstakingly placing strips of Mylar tape in a herring-bone pattern across the craft. The reference sheets laid out beside his workspace are marked in pencil with mathematical equations, specifically outlining where each strip of the metallic tape, which mimics the covering used on the real module, is to be placed.

“At other jobs, you get bored. Not around here,” Aich says, “this requires a lot of mind-thinking, scaling, figuring out how to make things look right and work right. It’s more than just using machines.”

Dale Capps, SpaceWorks manager, has been with the division for 17 years. In that time, he has been a part of many exciting projects, such as making props for films like Tom Hanks’ Magnificent Desolation. Or projects like the restoration of Liberty Bell 7 and two F-1 engines after their retrieval from the ocean floor, which he says was likely the most challenging project he has worked on but also, most fun. In fact, some unidentified sea creatures found inside one of the F-1 engines now float in a large mason jar on his desk.

“This is very creative work,” SpaceWorks Technician, Jim Franko, works on replicating Apollo command module control panels. Above right: The replication of an Apollo command module crafted by SpaceWorks, Hutchinson, Kan.

CONTINUED ON PAGE 3

SUMMER 2016 FOR MEMBERS + FRIENDS OF THE COSMOSPHERE
INSIDE THIS SPECIAL EDITION ON SPACEWORKS

» The “Art” of Replication
» Dillons Community Rewards
» Benefits of being a Cosmosphere Member
» Cosmosphere Campers are from all over the country
» Astronaut Michael Collins Photos
PLUS!
» Don’t forget those Tax Credits!
» Welcome, New Members!
» Patty Carey Annual Fundraiser
What are the benefits of becoming a Cosmosphere Member?

HAVE YOU BEEN THINKING ABOUT BECOMING A COSMOSPHERE MEMBER, BUT ARE UNAWARE OF WHAT MEMBERSHIP INCLUDES?

Here are a few of the perks:

• Free entrance into the Hall of Space Museum
• Discounts on tickets to shows & special events
• Special “Members Only” premiere screenings of new documentaries
• Discounts in the Cargo Bay Gift Store
• And more...

For more information on becoming a member of the Cosmosphere, or enrolling your child in the Junior Astronaut Club, contact our Membership Coordinator at 620.665.9310 or membership@cosmo.org.

DISCOVER MORE AT COSMO.ORG/MEMBERSHIP

You can support the Cosmosphere and save money on Kansas state taxes!

The Cosmosphere’s Revitalization Campaign was awarded $200,000 in Community Service Tax Credits through the Kansas Department of Commerce for the 2015 and 2016 tax years. Only $2,500 of the Cosmosphere credits remain.

The Cosmosphere was granted 50 percent credits, as it is in a non-rural area. That means a gift to the Cosmosphere of $1,000 can receive $500 in credits if the donor chooses to participate in the program.

“The tax credits are applied to the donor’s Kansas State Tax liability, or in the case of no existing tax liability, a refund check for the credit amount is issued to the donor,” explained Mimi Meredith, vice president of development.

“I’d be perfectly happy to award all of the remaining credits to someone who writes a $5,000 check toward the Revitalization Campaign! All it takes is some very simple paperwork a donor can fill out over the phone. Within a few weeks, we send the donor the form to submit with his or her 2016 tax return.”

Meredith went on to say that she’d happily fill out paperwork for 100 $25 gifts, as well.

“The most important thing to convey is the advantage to a donor who may appreciate a bit of state tax relief while benefiting the future of the Cosmosphere.”

For more information, call Meredith at 620-665-9339 or email mimim@cosmo.org.

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Where in the WORLD is the Cosmosphere?

MUSEUMS WITH COSMOSPHERE ARTIFACTS ON DISPLAY:
• Evergreen Aviation and Space Museum (McMinnville, OR)
• Cradle of Aviation Museum (East Garden City, NY)
• Space Foundation (Colorado Springs, CO)
• Purdue University (West Lafayette, IN)
• Eisenhower Presidential Library and Museum (Abilene, KS)
• Great Lakes Aerospace and Science Center (Sheboygan, WI)
• United States Space and Rocket Center (Huntsville, AL)
• U.S. Astronaut Hall of Fame (Titusville, FL)
• Franklin Institute (Philadelphia, PA)
• Indiana State Museum and Historic Sites (Indianapolis, IN)
• Children’s Museum of Indianapolis (Indianapolis, IN)
• Science Museum of Virginia (Richmond, VA)
• New Mexico Museum of Space History (Alamogordo, NM)
• Mid-America Air Museum (Liberal, KS)
• Reno County Museum (Hutchinson, KS)
• Oklahoma Museum of History (Oklahoma City, OK)
• Science Museum of London (London, England)

TRAVELING EXHIBITS UTILIZING OUR ARTIFACTS:
• “NASA: A Human Adventure,” John Nurminen Events (Taipei, Taiwan)
• An Exhibition Group (Planetario Alfa, Monterrey, Mexico)
• American Museum of Natural History (awaiting new venue)
• “Cosmos Discovery” by JVS (Bratislava, Slovakia, opening mid Sept 2016)

SpaceWorks Division

CONTINUED FROM PAGE 1

Capps states. “It’s like reverse engineering. It is fun, but you have to care about the projects, think critically and figure things out.”

“We are taking concepts and creating from there,” says Sean Crow. As another member of the team, Crow emphasis the creativity required of the SpaceWorks fabricators.

“It’s a fine balance – you cannot be a one-dimensional thinker because there are no directions,” says Crow. “We have to constantly keep the big picture in mind. Remember that most of these projects have to be taken apart, shipped and then re-assembled somewhere in the world, “ he says.

Crow, just as the other members of his team, comes from a varied work history. Using skills from industrial trades like welding, construction and metal fabrication, the team builds each replica in a specific sequential order. Each member is assigned pieces of the projects based on skill set, past experience and preference. As their manager, Capps allows the SpaceWorks team members to split the workload for projects, so that the guys can focus on pieces they are familiar with or have an interest in.

“Dale allows us to work on the things we want to, the way we want to,” says Crow, but he notes that the creativity is what keeps the guys at SpaceWorks motivated.

“We enjoy this work,” Crow says. “We come back for project after project because it’s interesting, challenging and we learn something. If you stop learning at your job, what’s the point?”

The original Apollo blueprint on the left and the replicated Apollo control panel on the right.

SpaceWorks Technician, Jim Harris, is machining a piece for the Lunar Rover’s high gain antennae.
THANK YOU TO ALL WHO ATTENDED THE GEMINI X: PATHWAY TO THE MOON GALA AND CHILDREN’S EVENT!

For excerpts from an interview with Michael Collins and more photos, go to hutchnews.com/space/cosmosphere.
Cosmosphere Campers traveled from all over the nation this summer!

Mobile, Alabama
AJ, Arizona
Cave Creek, Arizona
Oro Valley, Arizona
Phoenix, Arizona
Batesville, Arkansas
Fayetteville, Arkansas
Rogers, Arkansas
Antioch, California
Carmichael, California
Culver City, California
Davis, California
Fallbrook, California
Lafayette, California
Long Beach, California
Paradise, California
Roseville, California
Sunnyvale, California
Broomfield, Colorado
Castle Pines, Colorado
Castle Rock, Colorado
Colorado Springs, Colorado
Englewood, Colorado
Estes Park, Colorado
Fort Collins, Colorado
Greeley, Colorado
Gunison, Colorado
La Junta, Colorado
Littleton, Colorado
Longmont, Colorado
Morris, Colorado
Wheatridge, Colorado
Bridgeport, Connecticut
West Hartford, Connecticut
Gotha, Florida
Orlando, Florida
Metropolis, Illinois
Normal, Illinois
Lebannon, Indiana
Shelbyville, Indiana
Wakarusa, Indiana
Akron, Iowa
Ames, Iowa
Cedar Falls, Iowa
Clarinda, Iowa
Coralville, Iowa
Council Bluffs, Iowa
Des Moines, Iowa
Granger, Iowa
Iowa City, Iowa
Andale, Kansas
Andover, Kansas
Anthony, Kansas
Anthony, Kansas
Arkansas City, Kansas
Arlington, Kansas
Assaria, Kansas
Augusta, Kansas
Baldwin, Kansas
Basehor, Kansas
Belleville, Kansas
Beloit, Kansas
Benton, Kansas
Bryton, Kansas
Bonner Springs, Kansas
Bucyrus, Kansas
Buhler, Kansas
Burlington, Kansas
Burton, Kansas
Caney, Kansas
Carbondale, Kansas
Chanute, Kansas
Cheyney, Kansas
Cimarron, Kansas
Clearwater, Kansas
Clyde, Kansas
Coffeyville, Kansas
Colby, Kansas
Concordia, Kansas
Deerfield, Kansas
Derby, Kansas
Dodge City, Kansas
Douglass, Kansas
El Dorado, Kansas
Emporia, Kansas
Eudora, Kansas
Fairway, Kansas
Galva, Kansas
Garden City, Kansas
Gardner, Kansas
Garnett, Kansas
Girard, Kansas
Goddard, Kansas
Goessel, Kansas
Grainfield, Kansas
Great Bend, Kansas
Greensburg, Kansas
Halstead, Kansas
Hanover, Kansas
Harveyville, Kansas
Haven, Kansas
Havensville, Kansas
Hays, Kansas
Haysville, Kansas
Hebron, Kansas
Hiawatha, Kansas
Hillsboro, Kansas
Holcomb, Kansas
Hugoton, Kansas
Hutchinson, Kansas
Independence, Kansas
Inman, Kansas
Jamestown, Kansas
Junction City, Kansas
Kansas City, Kansas
Kechi, Kansas
Kingman, Kansas
Lakin, Kansas
Lansing, Kansas
Lawrence, Kansas
Leawood, Kansas
Lebo, Kansas
Lenexa, Kansas
Liberal, Kansas
Lindsborg, Kansas
Little River, Kansas
Louisburg, Kansas
Lyons, Kansas
Maize, Kansas
Manhattan, Kansas
Mankato, Kansas
Marion, Kansas
Marquette, Kansas
McDonald, Kansas
McLouth, Kansas
McPherson, Kansas
Medicine Lodge, Kansas
Merriam, Kansas
Milford, Kansas
Mooreland, Kansas
Moundridge, Kansas
Mt Hope, Kansas
Mulvane, Kansas
Newton, Kansas
Nickerson, Kansas
North Newton, Kansas
Olathe, Kansas
Osage City, Kansas
Osawatomie, Kansas
Ottawa, Kansas
Overland Park, Kansas
Paola, Kansas
Park City, Kansas
Peabody, Kansas
Peck, Kansas
Pittsburg, Kansas
Powhattan, Kansas
Prairie Village, Kansas
Pratt, Kansas
Pretty Prairie, Kansas
Princeton, Kansas
Quinter, Kansas
Randolph, Kansas
Riley, Kansas
Roeland Park, Kansas
Russell, Kansas
Salina, Kansas
Sedgwick, Kansas

NEW MEMBERS
(As of May 2 - Aug. 9, 2016)
Wei Tay
Virginia Davis
Amy Johnson
Cera Itani
Keith Conklin
Stacy Herdman
John and Gena Marquardt
James Maclaren
Jennifer Maclaren
Mike and Karen McMakin
Karen Jo Hudson
Rachel Lesslie
Larry and Denise Bliss
April Cash
Darwin and Bethany Adams
Brian and Sarah Ullmann
Jason and Jessica
Klanderud
Peter and Debra Kierst
Roger Zhan
Ngana Leung
Michael and Karla Hurst
Keith Cooley
Brian and Shanna Thomas
Joshua and Misty Schrag
Charles and Andrea Heck
Rachele Brown
Justin Falen
Will and Kat Wohlford
Timothy Johnson
Chelsea Johnson
Mary Whitfield
William and Judy Mason
Drew Kaufman
Ruth Seeliger
Jay Kuesterstetten
Cindy Kuesterstenen
Jon Buddle
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Barbara Emery-Geiger
Jon Stewart

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