

**Twenty-Eighth International Cartographic Conference
July 2–7, 2017, Washington, DC**

By Aileen Buckley, ICC 2017 Conference Cochair

The Twenty-Eighth International Cartographic Conference (ICC) was held July 2–7, 2017, in Washington, DC, with attendees and exhibitors representing an international assembly of governments, academia, and private industries. As the official conference of the International Cartographic Association (ICA), the ICC takes place every two years in one of the ICA member countries, where it is organized and sponsored by national societies or agencies. This year's conference was sponsored by the Cartography and Geographic Information Society (CaGIS). The Local Organizing Committee (LOC)—consisting of 40 people and chaired by Lynn Usery with the support of co-chairs Aileen Buckley and Tim Trainor—worked on this event for over six years, ever since the United States first bid for the 2011 ICC at the ICA General Assembly in Paris. After losing the bid for the 2015 ICC to Rio de Janeiro, the United States was awarded the 2017 ICC.

Here are some highlights of ICC 2017:

- Just over 900 registrants from 57 countries, including 316 registrants from the United States
- 28 student volunteers from 9 countries
- 496 scientific paper presentations and 205 poster presentations, of which, respectively, 116 and 27 entries were from the United States
- The International Cartographic Exhibition (ICE), with 475 maps, atlases, globes, and other cartographic works, including 66 entries from the United States, of which 2 were from the US Geological Survey (USGS) and 18 were from Esri
- The Children's Map Competition, with 193 entries from 34 countries, including 6 entries from the United States
- 12 preconference workshops with 271 attendees
- 10 technical tours with 230 attendees

The ICC 2017 website (<http://icc2017.org/>) provides additional information about the conference and these events. Note that some of the numbers in this article may change, as the conference data continues to be collated.



Attendees of ICC 2017 assembled after the opening ceremony for a group photo. (Photo by Eric Anderson.)

Venue

Conveniently located along the Red Line of the Metro rail rapid transit system, the venue for ICC 2017 was the Marriott Wardman Park hotel (<http://icc2017.org/conference-hotel/>), located just two and a half miles northwest of the White House and across from the Woodley Park Zoo. The Metro offered easy access by subway to all of Washington, DC, including the free Smithsonian museums and Washington's National Mall with its historic monuments.

Overview of Events

The ICC began with preconference workshops that convened in the four days prior to the opening of the conference. The Extraordinary General Assembly of delegates to the ICA was held on Sunday, July 2. ICC 2017 began the next day with an opening ceremony that had an audience of around 900. The program included special presentations by Menno-Jan Kraak, ICA president, and Kari Craun, director of the USGS National Geospatial Technical Operations Center; a number of welcomes from the American cartographic community; and a musical program by the award-winning Howard University Gospel Choir, which also performed the ICA anthem (introduced at ICC 2015 in Rio).



The Howard University Gospel Choir performed a short but enthusiastic musical program during the ICC 2017 opening ceremony on July 3. (Photo by Dierdre Bevington-Attardi.)

After the opening ceremony, the exhibition hall, which included the International Trade Exhibition and the International Cartographic Exhibition, was opened to the public, as was the area with the maps that had been entered in the Barbara Petchenik Children's World Map Drawing Competition. The scientific program began on Monday afternoon and included concurrent sessions on a wide selection of conference themes. An icebreaker reception was held in the exhibition hall later that evening, allowing conference attendees to mix and mingle over drinks and a healthy offering of appetizers.



(From left to right) Bob McMaster, Alan MacEachren, and Tim Nyerges catch up at the icebreaker reception on July 3. (Photo by Dierdre Bevington-Attardi.)

The week continued with each day consisting of concurrent paper sessions, poster presentations, and plenary sessions. Business meetings of the ICA commissions were also scheduled throughout the week, as were technical tours and a variety of social events. ICC 2017 ended with the closing ceremony on the afternoon of Friday, July 7, during which a variety of ICA awards were announced (<http://icaci.org/ica-awards-ceremony-icc2017dc/>). The student assistants offered their insight into the conference, and a wrap-up presentation was given by Kraak. Also during this ceremony, the organizers officially received the ICA flag for the next ICC, to be held in 2019 in Tokyo, Japan (<http://icaci.org/icc2019/>).

Details about these and other ICC 2017 events follow.

ICA Commission Workshops

The first ICC 2017 activity was the History of Cartography workshop, held June 28–30 at the Library of Congress. Other preconference workshops were held both on- and off-site on July 1 and 2 (<http://icc2017.org/preconference-workshops/>). These workshops were organized by ICA commissions and included the following topics:

- Location-Based Social Media Data and Tracking Data
- Supporting Sustainable Development with Geoinformation Management

- Mapping Tools for Nonmapping Experts
- Planetary Maps and Maps for Children
- Map Projections
- Mapping Challenges Identified in the United Nations Disaster Risk Management Conference
- Spatial Data Infrastructures, Standards, Open-Source Data, and Open Data
- Maps and Emotions
- Maps and Charts from the Early Modern Period to the Twentieth Century

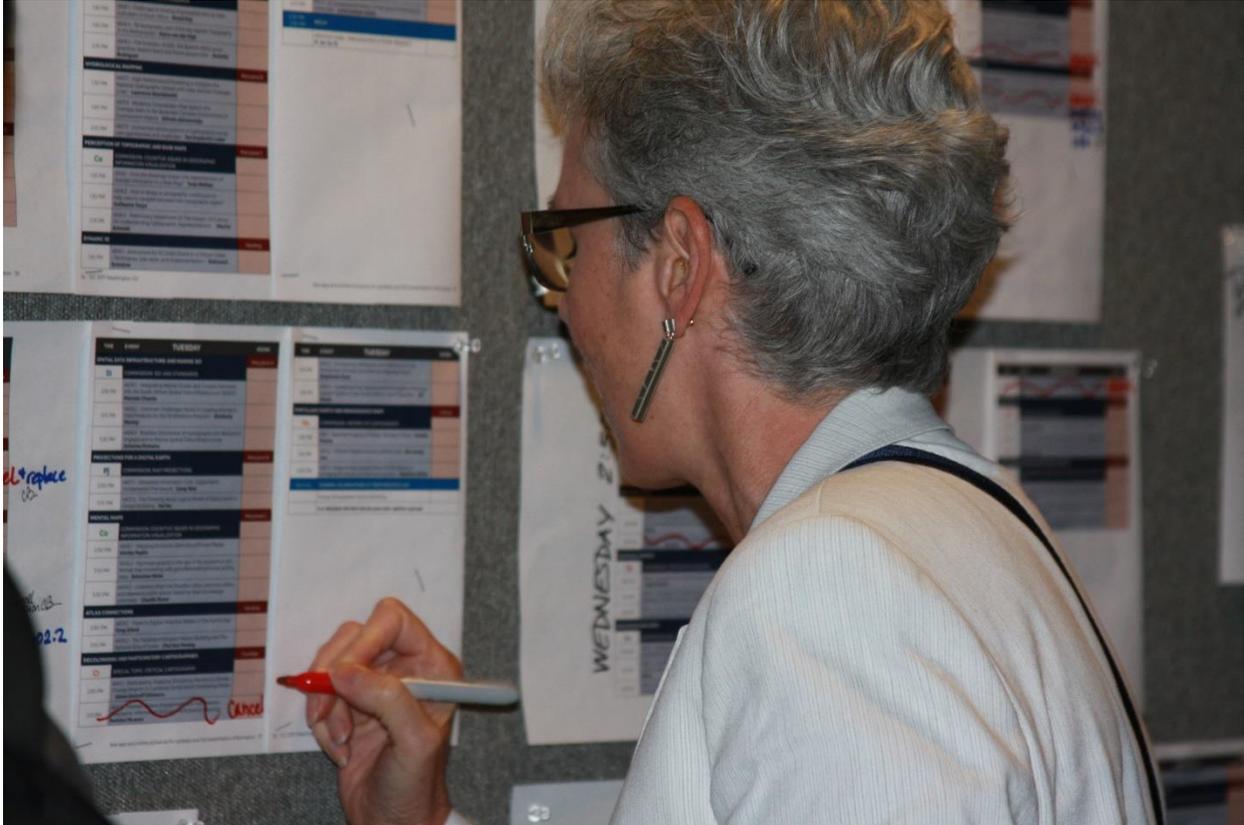
In all, 415 people registered for these workshops—over half the conference registrants!

Extraordinary General Assembly

While this was not an ICA General Assembly year (those are held every four years, with the last in Rio in 2015), the ICA did convene its Extraordinary General Assembly (<http://icaci.org/extraordinary-general-assembly-2017/>), primarily to introduce and get approval for a number of changes to the bylaws. Visit the ICA website for a report on the 2017 assembly (<http://icaci.org/>). In addition, the ICA national delegates voted to approve the acceptance of three new member nations: Estonia, Georgia, and Bangladesh.

Scientific Program

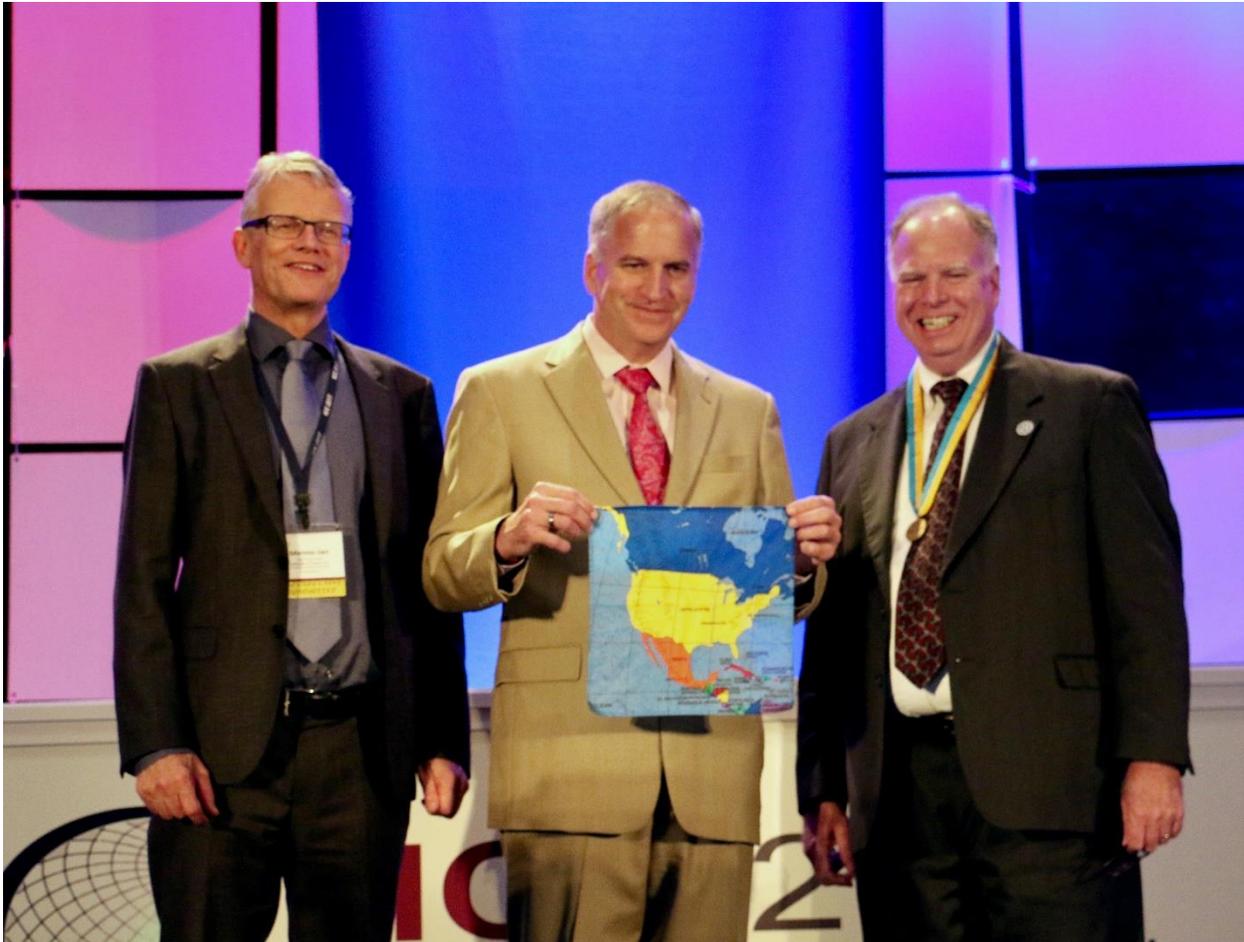
The scientific program (<http://icc2017.org/conference-program/>) was developed from more than 763 submissions and papers submitted to the ICC LOC (<http://icc2017.org/icc-2017-local-organizing-committee/>). Under the direction of Dr. Cindy Brewer, scientific program chair, nearly 80 members of the Scientific Program Committee (see page 5 of the print program at <http://www.eventscribe.com/2017/ICC/assets/AbridgedProgramPDF.pdf>) organized papers and posters for sessions relating to the 40 conference themes. Oral presentations were given in over 10 concurrent sessions held July 3–7. Poster sessions were held July 3–5.



Scientific program chair Cindy Brewer worked hard to make sure the program was up-to-date. (Photo by Dierdre Bevington-Attardi.)

The program also included a series of plenary presentations (<http://icc2017.org/keynote-presentations/>) from the following:

- Tom Patterson, Senior Cartographer for the US National Park Service, on Tuesday
- Robert Cardillo, Director of the US National Geospatial-Intelligence Agency, on Wednesday
- Lee Schwartz, Geographer of the US Department of State, on Thursday
- Mikel Maron, Data Team member of Mapbox, on Friday



After Robert Cardillo's plenary presentation on Wednesday, (from left to right) Cardillo, Tim Trainor, and Kraak provided a photo opportunity. (Photo by Eric Anderson.)

You can still read the session abstracts via the online schedule (<http://icc2017.org/conference-program/>), or you can use the web app. Go to your app store, search for "ICC2017", and install the ICC app. Once installed, you can search for topics or presenters. Additionally, the ICC web app permits you to download text and some PowerPoint presentations. (I'm not sure how long these will be available, so act soon to see the content in which you are interested.)

International Cartographic Exhibition

In conjunction with each ICC, the International Cartographic Exhibition is organized, wherein map products originating from ICA member nations and affiliate members are displayed. The maps in the exhibition are first authorized and selected by the ICA national or affiliate members. At the ICE, an international jury selects the best entries in various categories. As with the papers and posters, the entries in the ICE can be searched for and viewed in the online program or via the web app—you can even see thumbnail images of each entry (<https://www.eventscribe.com/2017/ICC/PosterTitles.asp?h=International%20Cartographic%20Exhibition>).

The 475 total entries in the twenty-eighth ICE included the following:

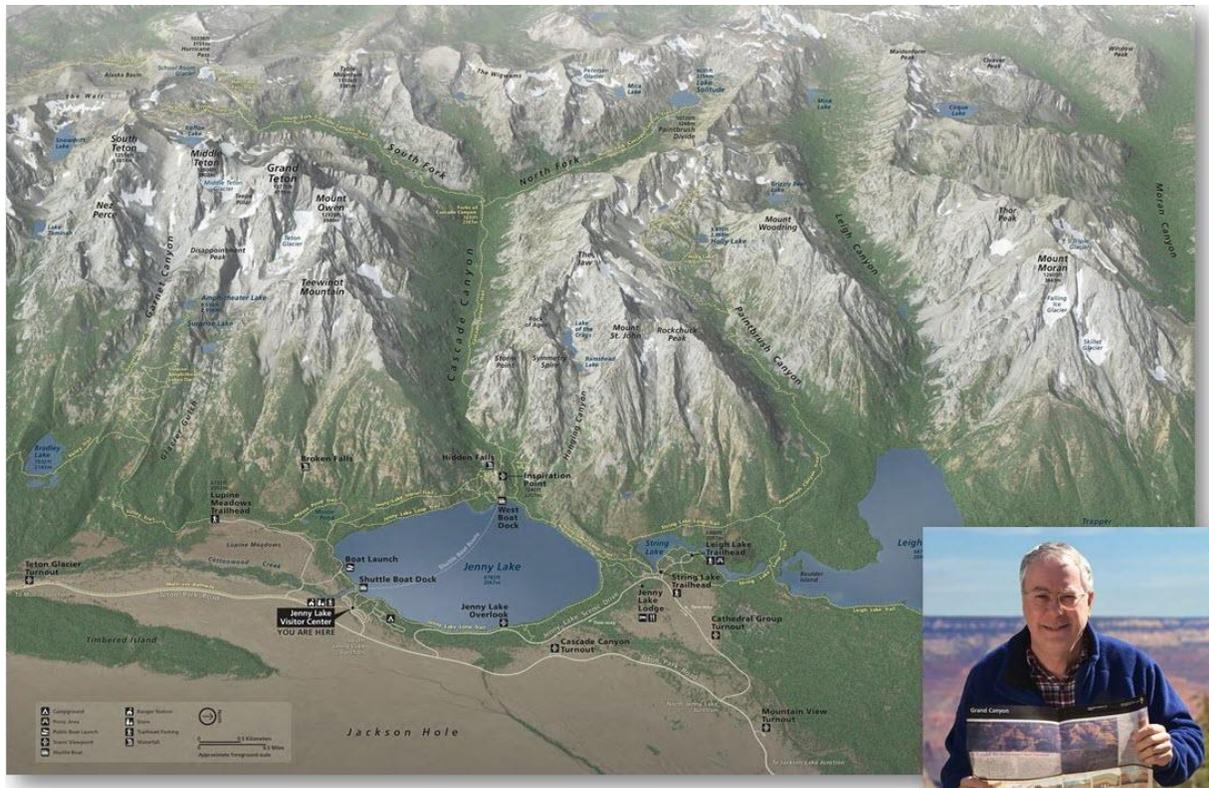
- 289 maps on panels
- 44 digital cartographic products
- 43 charts on panels
- 41 atlases
- 24 educational cartographic products
- 24 other cartographic products
- 9 digital services

The United States had 44 entries in the International Cartography Exhibition, including 33 maps on panels, 3 atlases, 4 digital products, 1 digital service, and 3 entries in the Other Cartographic Products category.



The US paper maps were displayed on six panels in the International Cartographic Exhibition; one panel is shown here. (Photo by Dierdre Bevington-Attardi.)

The judges selected the *Jenny Lake Hiking* map, by Tom Patterson of the National Park Service, as the third-place winner in the Map on Panels category, in which there were 307 entries. Esri's IFR Enroute Low Altitude—Alaska L-1 chart won third place in the Chart category.



Tom Patterson's Jenny Lake Hiking map was the only US entry to win in the map competition of the ICE.

Barbara Petchenik Children's World Map Competition

The Barbara Petchenik Children's World Map Competition is a biennial map drawing competition for children. It was created by the ICA in 1993 as a memorial to Barbara Petchenik, who had a lifelong interest in maps for children and, unfortunately, died while in service to the ICA as a vice president on the association's executive committee. The aim of the contest is to promote children's creative representation of the world in graphic form. Entries are first selected in a national competition in all participating ICA member countries. The winning entries in the national competitions are then exhibited during the International Cartographic Conference, where the international winners are selected (visit the ICA website, where the winning maps will soon be posted: <http://icaci.org/icc2017/>). The 2017 competition included entries from 34 participating countries and 193 drawings categorized in the following age groups (<http://www.explokart.eu/petchenik/>):

- Under 6 years of age (16 submissions)
- 6–8 years of age (29 submissions)
- 9–12 years of age (75 submissions)
- Above 12 years of age (73 submissions)

The United States had the maximum of six possible entries from an ICA member nation, including the following:

- *Painting the World a New Picture*
Cheyanne Ligutan (12 years old)
Chicago, IL
- *A Bird's-Eye View*
Ewa Bodzianoswki and Kaia Vazquez (8 years old)
Chicago, IL
- *Colorful Earth Puzzle*
Molly Rascon (5 years old)
Chicago, IL
- *Earth—A Fascinating Place Deep, Deep inside the Milky Way*
Amy Marie Doval Valdes Rodriguez (10 years old)
Hialeah, FL
- *We Love Maps: Food for Thought*
Shivani Patel (13 years old)
Mashpee, MA
- *Maps: Our Path for Exploration*
Champ Turner (15 years old)
Austin, TX



The United States entered six national winners in the Children's Map Competition (top, left to right): Painting the World a New Picture; Colorful Earth Puzzle; We Love Maps: Food for Thought; (bottom, left to right) A Bird's-Eye View, Earth—A Fascinating Place Deep, Deep inside the Milky Way; and Maps: Our Path for Exploration. (Photo by Dierdre Bevington-Attardi.)

Champ Turner's map won the public award, which he learned firsthand since he had traveled with his mother from Texas to DC to see the exhibition.



Champ Turner accepted his award in person after having traveled with his mom to ICC 2017 to see the ICE. (Photo by Dierdre Bevington-Attardi.)

International Trade Exhibition

The International Trade Exhibition was open to conference goers July 3–6, with 25 exhibitors representing federal agencies, private industries, universities, publishers, and professional societies from around the world. Attendees could also visit the booths of the Hemisphere-level ICC 2017 sponsors: Esri; the US Census Bureau; the USGS; Global Earth Observation System of Systems (GEOSS); and Afriterrra, the free cartographic library. A special booth gave visitors a glimpse of what to expect at ICC 2019 in Japan.



Visitors to the International Trade Exhibition could sample delights that are sure to be experienced at ICC 2019 in Tokyo, Japan. (Photo by Alberta Auringer Wood.)

Technical Tours

Several technical tours were offered during the conference, enabling participants to experience and learn about the latest cartographic developments in local governmental and private institutions. ICC 2017 offered 10 technical tours (<http://icc2017.org/technical-tour-information/>) that featured visits to seven different cartography and geospatial information science organizations in the DC area:

- USGS
- Library of Congress Geography and Map Reading Room (four tours)
- National Geographic
- National Oceanic and Atmospheric Administration
- Fairfax County Government GIS and Mapping Services Department
- Esri R&D Center, Washington, DC
- Smithsonian Institution

There were 230 registrants for these tours.

Social Events

ICC 2017 was scheduled during the United States' Independence Day holiday, and the Washington, DC, area is famous for one of the most elaborate Fourth of July fireworks displays in the country. Conference attendees were graced with a shortened schedule that day and were encouraged to participate in local holiday celebrations.



Fireworks displays on the Fourth of July were spectacular, especially when viewed from the top floor of the conference hotel. (Video by Dierdre Bevington-Attardi.)

In addition, a number of social events were planned for other days during the week (<http://icc2017.org/social-program/>):

- The icebreaker reception on the evening of the opening day
- A meridian walk led by Dr. Keith Clarke
- A walking tour of historic bars in DC, led by Doug Vandegraft
- A Washington Nationals baseball game, which unfortunately got rained out
- A gala dinner at a Texas-style restaurant
- An orienteering event with 33 participants
- An art gallery reception featuring the works of Mary Edna Fraser

During the meridian walk, 11 registrants visited the markers and sites along the four principal meridians used in mapping before the Greenwich meridian was adopted as the US standard. On the walking tour of historic bars, the 28 registrants visited several local Washington brewpubs and former speakeasies and grabbed dinner at the historic Old Ebbitt Grill. The ICC gala dinner was held as an informal event at the Texas Hill Country Barbeque Restaurant—152 registrants partook of a barbeque dinner, which was followed by music by a live band and dancing.



The gala dinner provided ample opportunity for people to visit, eat, drink, and dance—all with Texas flair. (Photo by Eric Anderson.)

The ICA orienteering event (<http://icaci.org/orienteering/>) was held at Fountainhead Regional Park in Fairfax County, Virginia, on one of the premier championship-quality courses in the nation. The event, hosted by the local Quantico Orienteering Club, included three courses: Advanced Beginner (Yellow: 1.7 km, 95 m, with 8 controls), Intermediate (Orange: 3.1 km with 10 controls), and Advanced (Brown: 3.7 km, 195 m, with 10 controls). Because of the anticipated heat and humidity, the event started early at 8:00 a.m. Unexpected rain and flooding caused many participants to exert all their skills to navigate and complete the courses. Winners were announced on the ICA website (<http://icaci.org/orienteering/>).



Heavy rains and flooding challenged orienteering event participants but did little to dampen the spirits of (from left to right) ICA president Kraak, ICA past president Georg Gartner, and ICA secretary general László Zentai. (Photo courtesy of László Zentai.)

On July 5, an exhibition entitled *Rising Tides: Batiks on Silk* was held at a local art gallery. The exhibition featured works by Mary Edna Fraser, a world-renowned artist who specializes in creations that integrate cartography and geospatial science and technology. Fraser's batiks were also prominently displayed above the International Trade Exhibition entrance, which was also where entries in the Children's Map Competition could be viewed by conference attendees and the public.



Mary Edna Fraser's batiks hung over the Children's Map Competition, gracing the entrance to the International Trade Exhibition. (Photo by Dierdre Bevington-Attardi.)

At the end of the week, the ICC 2017 attendees were tired, wired, and inspired. In all, ICC 2017 provided a week full of activities to engage, educate, and entertain its participants.