IHMC Board of Directors Teleconference Meeting Minutes Monday, September 20, 2021 8:30 a.m. CST/9:30 a.m. EST

Call in Number 850-202-4498

Roll Call	Chair Bill Dalton
Chair's Greetings	Chair Bill Dalton

Action Items

1.	Approval of June 14, 2021 Minutes	Chair Bill Dalton
2.	Discussion of IHMC Financials	Director Dick Baker

Chief Executive Officer's Report

1.	Research Update	Dr. Ken Ford
2.	State & Federal Legislative Update	Dr. Ken Ford
3.	New Hires	Dr. Ken Ford
4.	Education and Outreach	Dr. Ken Ford

Adjournment

IHMC Chair Bill Dalton called the meeting to order at 8:30 a.m. CST. Directors in attendance included: Dick Baker, Carol Carlan, Bill Dalton, Ron Ewers, Eugene Franklin, Hal Hudson, Jon Mills, Eric Nickelsen, Mort O'Sullivan, Jay Patel, Jim Reeves, Ray Russenberger, Gordon Sprague, and Glenn Sturm. Also in attendance were Ken Ford, Morley Stone, Ryan Tilley, Ronnie Armstrong, Alan Ordway, and Julie Sheppard.

Chair Dalton welcomed everyone attending in person and those who dialed in. He explained that he would move directly into the meeting discussing the two agenda items and then moving into Dr. Ford's report.

Chair Dalton introduced Agenda Item 1 and asked for approval of the June 14, 2021 Minutes. Director Sprague moved approval seconded by Director Carlan. With no further discussion the June 14, 2021 minutes were unanimously approved.

Chair Dalton then shared some good news and announced that the Defense Contractor Audit Agency (DCAA) had completed its annual audit of IHMC for the 2020 fiscal year and that he was pleased to report that the audit did not contain any questioned or un-allowed costs. He congratulated Ronnie and his team which was seconded by the other Board members. Chair Dalton then asked Director Baker, IHMC Chair of Finance and Audit, to discuss Agenda Item 2, the current IHMC financials.

Director Baker informed the Board that he had reviewed the financials over the past twelve months and that IHMC had retained the same net assets as the past year despite a \$1M decline in appropriated revenues. He noted that administrative expenses were also down and assessed that the current financial health of IHMC was fine. Chair Dalton thanked Director Baker for the deep dive into the financials and then asked Dr. Ford to provide his report.

Dr. Ford thanked Chair Dalton, said good morning to the Board and began his report. He began his report with the State Legislative Update informing the Board that Representative Pat Maney from Destin will be vice chair of House Higher Ed Appropriations. He announced that Jason Shoaf will also have a seat on that committee. He stated that for Board members unfamiliar with Maney, that he spent 35 years in the military including 8.5 active duty and the remainder in the Reserves where he rose to the rank of Brigadier General. He also spent 29 years as a judge in Okaloosa County commenting that it will be interesting to address him, is it Judge, General, or Representative. He concluded by stating that Representative Maney has certainly had a distinguished career and that we hope to host him at IHMC sometime soon.

Dr. Ford also announced that IHMC has also recently begun integrating the new foreign influence legislation that was passed this past session by the Florida legislature that took effect July 1. He informed the Board that this new law requires extensive background screening on any non-US citizens prior to the ability to interview so as one can imagine, this will be a time-consuming process. He stated that Dr. Morley Stone will be heading up the foreign influence background investigations and that we are testing out this new process on several newly posted robotics positions.

Dr. Ford also began a discussion of the Federal Legislative scenario commenting that while things in Washington are always in a state of flux, budget talks seem to be on track and we are hopeful that there will be a budget soon, adding that if not, the expectation is that a continuing resolution may be in place for 3 to 4 weeks in order to finalize budget details. He added that in the meantime, discussions in DC for the \$3.5T infrastructure bill, is unsurprisingly, very contentious. He continued by adding that Congress will be voting to raise the borrowing limit (suspension of the debt limit), which more than likely, will be tied to a deal to pass a continuing resolution while the infrastructure differences are hammered out. The negotiations over these two are linked and will dictate when appropriations bills will be introduced on the Senate floor.

He concluded by stating that while things in Washington are always in a state of flux, IHMC's discussions in DC have been going well and we are optimistic that our scientific agenda, and that of the nation, will be well supported assuming they pass a budget.

Also of note, Dr. Ford commented, that Morley and Julie hosted Representative Cammack's staffer, Will Smith, in the Ocala office several weeks ago and we think it was a successful visit. He explained that Will is new to Cammack's office beginning January 2021 and it was his first visit to her district and Ocala. IHMC hopes to host Representative Cammack in Ocala on a date in the not too distant future.

Dr. Ford then turned to the financial issues explaining that IHMC closed out our fiscal year and that means audits are in full swing but that he was pleased to report that our 2019-2020 DCAA federal audit is positive. He mentioned that as many will recall, DCAA is a contracted audit agency for the Office of Naval Research and that IHMC recently received the complete report and are more than pleased with its result. He stated that the IHMC independent audit with Saltmarsh is underway and due to staff shortages in almost every accounting firm, we are not exactly sure when this audit will be completed but we hope it is finalized by our December meeting.

Turning to research, Dr. Ford commented that the IHMC researchers are continuing to do a phenomenal job during unusual times and continues to push hard with proposal efforts. He stated that he was happy to present that we continue to be successful with new research funding and since our June meeting and today, we've been contracted for nearly \$3.3M in new research funding and have over \$3.4M of sponsored research projects pending or in the negotiation phase. He will now mention several of the new funded projects.

He remarked that one of our young but very up and coming computer scientists in our Ocala facility, Dr. Ian Perera, has received a NASA project for \$50,041 called Vehicle Crew Operations and Maintenance Assistance (VeCOMA). The objective of this VeCOMA project is to create a digital assistant that will provide course of action assistance to crew members using a multi-criteria decision-making approach which incorporates a responsive dialog system and automated data ingest and formatting process. He stated that in support of this overall objective, IHMC's effort will be to develop a dialog system that integrates into the VeCOMA tool but added that often these seedling projects line IHMC up for significant follow up funding so while this is a small initial effort, we are excited about this project.

Dr. Ford mentioned that also in Ocala, Dr. Bonnie Dorr, our resident Senior Research Scientist, was recently awarded two very nice projects from DARPA, the first is for approximately \$248,000 and is Understanding Private States: Attitudes in Argumentation. He explained that the research centers on understanding private states from natural language use in context with the core idea to move natural language processing to the next level. The goal is to enable knowledge rich analysis that included private states (i.e., what's going on inside people's heads) to understand attitudes, goals, and intentions that underlie communication in a conversational context, including argumentative and adversarial communication.

He continued stating that Dr. Dorr's other DARPA project is \$1.2M initiative. He explained that this program will develop techniques and tools that enable analysts to detect, characterize, and track geopolitical influence campaigns with quantified confidence. Dr. Ford stated that the U.S. is engaged with its adversaries in an asymmetric, continual, war of weaponized influence narratives where adversaries exploit misinformation and true information delivered via influence messaging: blogs, tweets, and other online multimedia content. He explained that analysts require effective tools for continual sensemaking of the vast, noisy, adaptive information environment to identify adversary influence campaigns. In contrast to current social media tools, the new tools will directly and automatically detect implicit and explicit indicators of geopolitical influence in multilingual online messaging to include author's agenda, concerns, and emotion.

Dr. Ford then stated that he was happy to report that Dr. Anil Raj was recently awarded a new NASA project in which IHMC will be participating with Human Systems Integration (HSI), a leading developer and provider of garment-integrated, wearable electronic solutions, to aid in the design, development of a portable, comfortable, wearable, affordable and robust galvanic vestibular stimulation device. This device provide a head movement coupled and controlled multi-axis galvanic vestibular stimulus to create vestibular sensations that mimic those perceived by astronauts in response to active head movements following sensorimotor adaptation to long duration spaceflight.

He continued explaining that Anil has been busy proposing and received NASA funding for \$126,000, to work with the company QUASAR to develop a system intended to monitor changes in speech to track acute and chronic stress and notify crewmembers of stress accumulation before adverse health impacts occur. He added that this research effort will focus on and contribute to the development of the experimental paradigm for measuring stress from speech, create normative stress gauges, and write software for real-time assessment of stress via speech.

Dr. Ford informed the Board that Dr. Jeff Phillips has received a \$1M award from the Office of Naval Research on a Machine Learning Approach to Identifying Hypercapnia through breath sounds in mask worn breathing systems. Simply put, he explained, hypercapnia is a buildup of carbon dioxide (CO2) in an operator's arterial blood stream and in military diving, hypercapnia is thought to be caused by malfunctions in SCUBA equipment. He explained that when hypercapnia occurs in operational and training settings, it places military divers at a high risk of significant physiological stress, panic, incapacitation, drowning, and death and in order to mitigate hypercapnia associated risks in diving, methods to identify the early signs of the condition are required. He explained that Hypercapnia is typically measured through end-tidal CO2, which measures the amount of CO2 expired at the end of each breath and that efforts to develop the capability to accurately measure end-tidal CO2 in dynamic operational environments, like diving, have been unsuccessful due to technical and environmental issues. He added that since respiratory sounds are found to convey invaluable information, an alternative method is to employ a small non-invasive microphone and monitor respiration using the sound dynamics in an operator's breath. Dr. Ford added that IHMC will develop a machine learning based algorithm that uses photoacoustic properties of breath sounds to provide a real-time, reliable, unobtrusive way to measure important breath-based indicators of physiological stress associated with hypercapnia. He commented the development of a simple, reliable, and field expedient measure of respiration rate would be a significant advancement in real-time operator monitoring. This development can be expanded to identify other physiological stressors like hypoxia and breathing resistance, and sounds associated with other life support system malfunctions.

In our robotics efforts, Dr. Ford stated that Dr. Robert Griffin has received an award from the Army for roughly \$500,000 entitled "Robust Humanoid Walking and Recovery on Rough Terrain". He commented that the robotics group will research, develop, and demonstrate push recovery strategies for bipedal walking over rough terrain and in constrained environments and that IHMC believes that equipped with the right abilities, humanoid robots promise to enable revolutionary changes in tactics and operations. He added that for robots to operate throughout the full spectrum of the warfighter domain, they must be able to work and function in the same environments as soldiers and the ability to robustly traverse difficult terrain is imperative for robots to reliably navigate the complex surroundings in which the modern warfighter operates. He explained that to enable this robustness, we will extend and improve our humanoid mobility algorithms and that key innovations include real-time perception for walking, high-speed foothold planning, and techniques for step adjustment and balancing in sparse terrain. He commented that by the end of this 18-month project, we will demonstrate the robot walking over large rocks with sparse footholds, responding in real time to both shifting terrain and external disturbances.

He then stated that the following projects have been awarded but are still in negotiations beginning with one project awarded to one of our newer scientists, Dr. Kaleen Lavin, who has been notified

of a \$300,000 award from USSOCOM on the enhancement of Pathway-Level Information Extractor for Omics Data Interpretation (PLIER). Kaleen would be partnering with Dr. Arsh Mahyari from the Ocala office. Simply put, he explained PLIER is an innovative and powerful bioinformatics tool used to identify and interpret top genes in each data set. He added that IHMC's enhancements to PLIER will substantially improve the ability to represent the biological and physiological relevance of gene expression-based discoveries in an efficient, unbiased, and informed manner.

Dr. Ford then mentioned that Dr. Morley Stone has been notified of a USSOCOM award in the amount of \$2.9M to evaluate the Prophylactic Ketone Administration on Concussive Injury in the US Army Basic Airborne Course. He explained that as we all know, warfighters face significant risk of mild traumatic brain injury (mTBI) from acute and repetitive impact and blast exposure which can occur during combat-related and routine training activities (e.g., parachute jumping). He commented that it is now recognized that mTBI is associated with neuroinflammation and can have persistent long-term debilitating effects in many individuals. He stated that the overarching goal of this IHMC project is to reduce the deficits induced by closed head injuries and that to meet this goal, we will test the central hypothesis that a metabolically supported ketone-fueled brain is more protected from neurotrauma. He explained that IHMC proposes a novel trial designed to assess the efficacy of ketone ester (KE) supplementation during US Army Basic Airborne Course training as a prophylactic against detrimental cognitive outcomes following mTBI. He stated that this objective will be examined through three specific aims with Aim 1 examining the pre-jump prophylactic potential of KE supplementation to attenuate closed head injury-induced changes in cognitive performance. Aim 2 will be exploring the potential of KE to alter blood and urine-based protein, molecular, metabolic and lipid profiles impacted by closed head injury during jump training. Aim 3, currently an option, to develop a multidimensional predictive model of mTBI risk among participants.

Concluding new projects, Dr. Ford mentioned that Dr. Ian Perera has been notified of an Air Force award in the amount of \$295,000 for a project called A Co-Training Methodology for Improved Performance in Human-Machine Teams. He stated that this work consists of a novel software system which advances the state of the art in human-machine teaming by enabling these teams to co-train on tasks before performance in order to establish, maintain, and repair trust during performance. He explained that to address increasing threats from adversaries, warfighters must be partnered with intelligent systems capable of automating and augmenting human capabilities adding that traditional models of these human-machine teams have autonomous partners and human partners train independently over the skills needed to accomplish a task or mission. He stated that our envisioned system will enable these teams to instead co-train and develop the skills needed to accomplish a task or mission together, over increasingly complex training scenarios and that this co-training will allow bi-directional trust between the human and machine teammates, by leveraging new algorithms and technology related to our core technical objectives.

And then Dr. Ford mentioned that his favorite part of the report is to talk about some new hires. He was pleased to announce that on September 1st, Dr. Mark Williams joined IHMC as a Senior Research Scientist. He explained that Mark has been a Professor in the Department of Health and Kinesiology and an Adjunct Professor in the Department of Psychology at the University of Utah and that his research interests focus on the neural and psychological mechanisms underpinning the

acquisition and development of expertise. Dr. Ford remarked that Mark has published over 230 journal articles in peer-reviewed outlets in numerous fields including exercise and sports science, experimental psychology, neuroscience, and medicine and that Mark is also the Editor-in-Chief for the Journal of Sports Sciences, the Research Quarterly for Exercise and Sport, and the journal Human Movement Science. Dr. Ford remarked that Mark is a Fellow of the British Psychological Society, National Academy of Kinesiology, British Association of Sport and Exercise Science, and the European College of Sports Sciences and that he has received over \$7M in external funding and that we are pleased to have Mark join the team.

Continuing with new team members, Dr. Ford remarked that Gregory Addison joins IHMC as a Certified Registered Practitioner joining IHMC working with Dr. Marcas Bamman adding that Greg received a Master of Science in Nursing from the University of West Florida, and that Greg has experience as a staff nurse as well as work experience coordinating a multi-year, first of its kind, research project into the effects of hyperbaric oxygen therapy on traumatic brain injury. He added that Greg also served as a combat medic and a deep-sea diving medical technician and is recently retired from the U.S. Navy.

Dr. Ford then stated that Dr. David Morris joins IHMC as a Research Scientist working with Dr. Jeffrey Phillips on the Improving Human Performance Through Sleep Restoration Phase II. Dr. Ford informed the Board that Dave holds a Ph.D. in Exercise Physiology from the University of New Mexico. He explained that his experience as a physiologist includes work with the United States Olympic Committee at the training center in Colorado Springs, and with the United States Cycling Federation for the U.S. Cycling Team in the 1996 Olympic Games, developing novel training techniques for athletes, methods for performing in heat and humidity, and participating in the development of superior equipment for competition and for tracking the efficacy of training programs. He concluded by stating that Dave also provided coaching and consulting services to athletes through his research, training, and consulting company called RacersReady.com.

Dr. Ford also informed the Board that Phillip Turner began in July 2021 as Director, Architectural and Engineering Services, taking a leadership role in assisting IHMC with building renovations in existing facilities and the anticipated new construction of the human performance building on the IHMC property at Garden and Alcaniz Streets. He added that the Board might recall that Phil was the IHMC project manager on the Levin Center mentioning that Phil received a Bachelor of Architecture from Auburn University, along with a Bachelors' degrees in Architecture, Environmental Design and Building Construction from Auburn University and that Phil is a registered Architect in the State of Florida.

Dr. Ford turned the discussion to the Triumph project stating that IHMC continues its Triumph Grant Funds utilization to further its Human Health, Resilience, and performance capabilities. Adding that to date, IHMC has purchased over half a million dollars worth of new state-of-the-art equipment that will help reduce dependencies on partner organizations and allow IHMC to target and win a broader range of research solicitations. He mentioned that some of the purchases include an iDXA scanner, metabolic carts, a research grade treadmill, Bioxdex computerized robotic dynamometer, wet lab fume hoods, numerous centrifuges, cold tub and endless resistance pool, and much more. In addition, he explained, IHMC has hired 7 new team members funded through

Triumph Grant funds and has plans to hire more in the near future with the goal to transition these new people to grant funded projects and then start looking for additional team members.

Turning to workshops, Dr. Ford informed the Board that the USSOCOM Cold Weather and Altitude Symposium was held in Colorado Springs on August $24^{th} - 27^{th}$ of this year and that SOCOM requested that IHMC and team coordinate and organize the symposium. He explained that the objective of the symposium was to provide the most up-to-date information in the field of human performance optimization and associated gear adding that the symposium was set up so that speakers and guests, consisting mostly of military invitees and university scientists, had the option of attending in-person or via Zoom platform. He mentioned that in addition to the speakers from around the world, there were approximately 100 in-person attendees and 100 online attendees. He added that this was the second year IHMC was asked to lead this event and we have already been invited back next year explaining that the event was an overall huge success!

Turning his comments to Outreach efforts, Dr. Ford commented that he was happy to report that even with Covid, IHMC was able to host all the robotics camps and they were very successful. He added that more than ever, he thought the students from grades 7th to 9th were very engaged and appreciative of the opportunity to do hands on projects. He mentioned that the python programming in Ocala was successful and that IHMC would certainly incorporate this into the advanced camp this coming summer in Pensacola.

Dr. Ford also informed the Board that Science Saturdays was resuming with in-person events at both locations in September adding that on September 11th in Ocala, we held Investigating Florida's Springs, with Erin Benavides from Silver River Museum and it was well received. He mentioned that in Ocala on October 2nd they will feature Electric Circuits, with IHMC's Dr. Arash Mayari. On November 6th we will hold the very popular Candy Chromatography, with Dr. Manal Fakhoury, a Clinical Pharmacologist and Mayoral Candidate in Ocala; and on December 4th will be Jello Lenses and Optics, with Dr. Peter Polack, from Ocala Eye and a longtime friend and colleague with IHMC. He mentioned that Ocala sponsors include Lockheed Martin, Ron and Phyllis Ewers, Ocala Electric, and an anonymous local foundation.

He explained that in Pensacola, the line-up is as follows: on September 25th we will host Roller Coasters, with IHMC's Nicole Esposito; on October 23rd we will present Binary Brains with IHMC's Carson Wilber; on November 29th we will host Game Design, with Heath Parr from Brown Barge Middle School and IHMC's Robotics Camp; and we will finish up the season on December 4th with host Robot Hands, with IHMC's popular Dr. Jerry Pratt. He mentioned that Pensacola sponsors include Gulf Power, Florida Blue, Barnes Insurance, and the Escambia County Sherriff's office.

He explained that we will also take reasonable COVID precautions, suggesting attendees wear masks, and limiting attendance compared to prior years and that parents will be asked not to enter the building other than in the event of emergencies to help reduce the number of unnecessary people in the building.

Dr. Ford then turned the discussion to the evening lectures series stating that this was quite a different story commenting that it just does not seem smart to put in excess of 200 people in a

crowded facility. He explained that several of the speakers in Ocala were concerned about travel and in some cases their employers were not permitting travel. In Pensacola, he explained that while all of the planned speakers are willing to travel and lecture, that we would be handling this a little differently than in the past. We would hold the lectures earlier, from 4 to 5 pm, and that attendance would be limited to a much smaller well-spaced audience followed by an early dinner and that if any Board members are interested in attending, please let him know. He remarked that the September 23rd talk is "Reclaiming Youth: The Best "Brain Games" For Brain Health and Performance" and features Josh Turknett, MD, a neurologist, musician, author, and entrepreneur. October 6th will feature a return speaker discussing the microbiome and aging stating that the Board would no doubt remember William Davis, MD, a cardiologist, and author of the New York Times #1 bestseller, "Wheat Belly" and that Dr. Davis has a new book due to be released in February of 2022. Continuing on, he mentioned that Dr. Christopher J. Logothetis will join us on November 9th adding that Chris has a longstanding interest in germ cell tumors, bladder, renal, and most recently in his career, prostate cancer and that his research experience preceded the development of effective chemotherapy and extends to the current era of molecular targeted therapies. The classification of cancer adding that Chris was among the first to test chemotherapy agents at a time of general skepticism that chemotherapy would be useful in advanced prostate cancer.

Dr. Ford concluded by stating that in December we will take a break for holiday parties but resume January 22nd to feature Dr. Dan Pardi whose is currently co-authoring a book with Josh Turknett, MD, provisionally titled, "Actual Health - Realizing Untapped Potential". He added that Dan is the founder and CEO of humanOS.me - helping people achieve a higher health level through digital health training explaining that Dan has a Ph.D. in Cognitive Neuroscience from Leiden University in the Netherlands and Stanford University, and he has a Masters of Science in Exercise Physiology from Florida State University.

Dr. Ford then turned to new building initiatives and building renovations at 40 South Alcaniz. He explained that IHMC was exploring the financial feasibility of constructing a new four story building largely focused on human performance, healthspan, and resilience and that just last week we hosted Space Florida to discuss the status of the new building and their interest in having a Pensacola presence. He explained that things are still progressing, and that Space Florida may be able to contribute some small amount of funding to a new facility. He explained that the conversation was continuing and that he would keep the Board posted.

Dr. Ford updated the Board on the ongoing facility renovations in two parts of 40 South Alcaniz explaining that the demolition of the lower north is complete, and we are awaiting the final permitting for the buildout, required due to electrical and plumbing work, adding that the floors will be antistatic vinyl tile similar to what you might find in a medical facility. He added that equipment is being delivered and the prefabricated interiors are being constructed and shipped. The medical casework and furniture have been ordered and should be here this month and we anticipate finishing the lower north by years end and hope to be able to tour you through this location at the December board meeting.

Dr. Ford explained that IHMC did run into a slight snag on installation of the wave resistance pool and cold-water pool as the construction of the enclosure requires the architectural review board approval and as those in Pensacola know, this could take 6 to 12 months so we are currently

pursuing alternative locations as this research project needs to be completed by March 2022. He commented that also, as one might imagine, with all the new hires, we are out of space and to accommodate new scientists, so we are also renovating the former executive suite in building 40 to put in eight dedicated offices, two workstations, a senior scientist office and a small conference room, and we anticipate this will also be completed by years end.

Dr. Ford then announced that we are also extremely pleased to announce that we are partnering with Martha and her staff at UWF to transform the adjacent warehouse on Romana Street into a secure classified facility. Ed Ranelli is leading this effort for UWF with Morley Stone for IHMC and we all believe this will enable new opportunities for IHMC to perform classified research and for UWF to expand and enhance their work in cybersecurity. He added that the presence of a SCIF in our downtown region may also be a tool for economic development.

In Ocala, Dr. Ford stated that we are gearing up for the 2^{nd} Annual Give for Marion campaign coming up on the 21^{st} of October and focusing on our educational programs and have a new video depicting our Ocala activities. This is going to be a great opportunity to reconnect with our donors/supporters of all ages in Marion County.

He announced that this fall, we will be unveiling the kinetic sculpture being done in partnership with IHMC and Ocala Electric Utility, and it will be installed in front of our Ocala campus commenting that there will be a ribbon cutting and invitations will be sent to the arts, education, and community leaders of Marion County. He explained that this is the first piece of a four-year sponsorship commitment with the city and there are additional events being planned throughout this period. The artist and sculptor came to IHMC to recycle robotics materials from the labs and we will proudly have a sculpture that incorporates recycled parts of Pensacola and Ocala into a technology art piece. He asked the Board to let him know if Directors were interested in attending the sculpture unveiling and that they would be included on the invite list.

Dr. Ford concluded by thanking all the Directors for their continued support of IHMC. He stated that he looked forward to seeing everyone again in person in the near future and that he hopes we will be able to hold the annual Christmas parties this year with Pensacola scheduled for December 9th and Ocala for December 16th.

Dr. Ford then informed Chair Dalton that this wrapped up his report.

Chair Dalton thanked Dr. Ford for an excellent report and then asked if there were any additional items to be discussed by the Board. Director Patel announced that he had been asked by Vicki Shirley at the Florida Board of Governors to provide an IHMC update at their January 28th meeting and requested an update from Ken and Julie prior to that meeting.

Chair Dalton then reminded the Board that the next IHMC Board meeting was a teleconference to be held on Monday December 13th. Hearing no additional questions or comments, Chair Dalton adjourned the meeting at 9:55 am central time.

Respectfully submitted, Julie Sheppard, Corporate Secretary