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OVERSIGHT OF LIBRARY OF CONGRESS MODERNIZATION EFFORTS

HEARING

BEFORE THE

COMMITTEE ON RULES AND ADMINISTRATION UNITED STATES SENATE

ONE HUNDRED SEVENTEENTH CONGRESS

FIRST SESSION

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OVERSIGHT OF LIBRARY OF CONGRESS MODERNIZATION EFFORTS

WEDNESDAY, OCTOBER 20, 2021

UNITED STATES SENATE
COMMITTEE ON RULES AND ADMINISTRATION
Washington, DC

The Committee met, pursuant to notice, at 3:07 p.m., in Room 301, Russell Senate Office Building, Hon. Amy Klobuchar, Chairwoman of the Committee, presiding.

Present: Senators Klobuchar, Blunt, Ossoff, Capito, Fischer, and Hagerty.

OPENING STATEMENT OF HONORABLE AMY KLOBUCHAR, CHAIRWOMAN, A UNITED STATES SENATOR FROM THE STATE OF MINNESOTA

Chairwoman KLOBUCHAR. Good afternoon. I call this hearing of the Rules and Administration Committee on Oversight of the Library of Congress's Modernization Efforts to order. I would like to thank Ranking Member Blunt, our colleagues, and our witnesses for being here, in what we will consider an island of sanity on a rather insane day today. Right here in this room, we are going to be constructive, as you always are, and I want to thank you for the work that you have all done on behalf of our Nation's Library.

In particular, I would like to thank Librarian of Congress Dr. Carla Hayden for once again appearing before the Committee and for maintaining a steady hand at the Library through a really difficult time, the pandemic. A place where so many people are used to coming in in-person and walking through the doors, like every other agency and every other business. It has not been easy.

I would also like to welcome our other witnesses, Shira Perlmutter, who is the Register of Copyrights and Director of the United States Copyright Office, Ms. Mary Mazanec, who is the Director of the Congressional Research Service, something we all use, and Mr. Jason Broughton, who is the Director of the National Library Service for the Blind and Print Disabled, who just joined the Library last month, after previously serving as Vermont's first African American State Librarian.

So congratulations on your new position. As some of you know, I know that Dr. Hayden knows it, it was my childhood dream to be a librarian. That is what I put down in first grade of what I wanted to do. I started my own Dewey Decimal System in a box of all the books that I read. My career, sadly, took a different path, but this is still very important to me. The reason I wanted to be a librarian is it was my favorite thing to go to the library and

check out books and read them. Libraries are an essential part of our civic infrastructure, holding society's important records, critical research, and works of art. They preserve and share this knowledge for future generations.

We are here today to discuss the ongoing efforts to modernize the largest library in the world, the Library of Congress. Okay, I just learned that as I read it, that we do in fact have the largest Library in the world. The Library holds more than 171 million volumes and has the world's largest collections of legal materials, films, and sound recordings. People come from all over the world to see these collections, even in the midst of the pandemic. Last year, the Library welcomed more than half a million visitors in person and increased its online traffic by more than 50 percent, to nearly 175 million unique visits.

Thousands of dedicated staff at the Library work to ensure that these important resources are available to the public. My own husband has written a number of historical books and spent much time in the Library of Congress researching. The initiatives, Dr. Hayden, that you have launched and the reforms you have implemented speak to your vision of a library that is inclusive and accessible to everyone. The stated goal of the Library's 5-year strategic plan released in 2018, Enriching the Library Experience, is to expand the Library's intellectual and inspirational value to people across the country, and to engage and inform all Americans from all walks of life.

When we held our last oversight hearing on Library Modernization in 2019, you, Dr. Hayden, explained that in order to achieve these goals and increase accessibility, you had begun a modernization effort to ensure that the Library keeps pace with the rapid advancement of technology. I note that this was in November, right before the onslaught of the pandemic, so it is good you had a plan.

Digital access and connectivity to the Library's collections have proved, as I have noted—especially during the pandemic—investments in the Library's information technology systems and programs are essential for the Library to fulfill its mission. Briefly, the Copyright Office. The Library of Congress is home, of course, to the Copyright Office, critical to our economy. According to a study released last year, businesses and artists who rely on copyrights contribute more than $1.5 trillion to our economy annually. That translates to about 7 percent of the total United States GDP and 5.7 million jobs. If you are an author, musician, filmmaker, or any one of the millions of Americans who create content, the Copyright Office is the place for you to go.

Copyrights are essential to the vitality and creativity of our economy and modernizing the office to keep pace with the technology and content is a priority for our Nation. We look forward to hearing those updates as well as the implementation of legislation that has passed in recent years, including the Music Modernization Act and the CASE Act. Congressional Research Service for members and our staff, very important, 75,000 congressional requests in the year 2020. CRS informs Congress on many of the most pressing legislative issues facing our Nation, providing non-partisan analysis that informs the policymaking process.

Finally, last but not least, the National Library Service for the Blind and Print Disabled performs the critical role of ensuring that the Library's resources are available to everyone. Ensuring that those who cannot read print have access to modern braille devices. That continues to be one of Senator Blunt's and my top priorities. Today we are going to hear more about NLS's several ongoing efforts to expand access to its services, including by providing braille eReaders, and with its growing library of nearly 150,000 downloadable braille and audio reading materials.

The Library has a rich and celebrated history, and we look forward to hearing about the modernization efforts at this critical time. With that, I turn it over to my friend, real friend and colleague, Senator Blunt.

OPENING STATEMENT OF HONORABLE ROY BLUNT, A UNITED STATES SENATOR FROM THE STATE OF MISSOURI

Senator BLUNT. Real friend, as opposed to just sort of made up Senatorial friend. But we are——

Chairwoman KLOBUCHAR. There are a lot of those in this building——

Senator BLUNT. There are, and we do lots of this work together. In fact, when you mentioned the largest library in the world was the Library of Congress, and you had just read that, it reminded me of Senator Dole, who I never served with, but he had this great sense of humor, who said he often liked to read his speech for the first time before the crowd, that way they could be equally surprised.

[Laughter.]

Senator BLUNT. But we are glad——

Chairwoman KLOBUCHAR. I may use that line. That is very good.

Senator BLUNT. So, Senator Klobuchar, thanks for calling this hearing. Dr. Hayden, it is nice to see you again so soon. I was glad to have a chance just a few weeks ago to film a little promotion video with you for the Veterans History Project. I certainly think and hope we can talk more about that project later today. But after some time working a long way apart, it is nice to have us all back and able to be in the same room, even in under maybe different circumstances than we sometimes would like. In our last hearing in November 2019, we discussed the progress in modernizing the Library, as well as the work yet to be done there.

It certainly has been an eventful two years since then, and you have dealt with a number of issues, all of you have, that you wouldn't have expected to deal with as we have. I will tell you, my colleagues and I, and certainly Senator Klobuchar and I are interested in the Library's successful modernization, and we want you to know that we are supportive of the ongoing effort you are making there.

People depend on the Library in ways that they might not have anticipated and get their information in ways that they wouldn't have anticipated just a few years ago. For our other witnesses today, Mr. Broughton, thanks for being here and taking this job. When I was the Secretary of State in Missouri, we brought the State Library and the Wolfner Library for the Blind into the Secretary of State's Office. I watch what you are doing carefully.

As Senator Klobuchar mentioned, that is one of the things we are both committed to doing everything we can to be sure that we make all of that information as accessible and stored as properly when it is not being out as it needs to be. Certainly, the copyright issues, Ms. Perlmutter, are huge issues. I think looking at the things that you are working on to try to find a better way where the individual content creator or the small business creator really has an opportunity to defend what they have created, if that happens. Certainly the Congressional Research Service, particularly in our office, but particularly in the Republican Policy Committee that I chair, I think we have contacted you multiple times almost every day of the week.

I am sure that Senator Stabenow's team in the Democrat Policy Council does the same thing, so thanks for what you all do. I am glad that you are here. You know, shortly before Dr. Hayden took the reins at the Library. In fact in 2016 the Government Accounting Office released a report highlighting serious vulnerabilities they thought in the Library's information technology infrastructure and giving the Library a list of recommendations. Over the last five years, the Library has made great strides in centralizing its IT systems, and I think closing out nearly all of those recommendations, we might revisit the last challenges in that front.

The project in the Thomas Jefferson Building to create a youth center, a treasures gallery for the Library's rare collections, and an orientation space in one of the most remarkable buildings in the world—if it didn't have that great collection at it, the building itself is certainly a jewel that we couldn't recreate today. But the things that you are doing there to try to open the building up and welcome people into the building in different ways I think are so important. What you did to make the Library's collections available during the pandemic, and I know we had well over a year of constantly looking for new ways to make things available to people in the past would have got them in their own library or in the library here in different ways, it has been important and will pay dividends for a long time.

The pandemic had tragic circumstances, but in many things it just required us to look at the technology that had been out there and use it in ways that we might have used it five years ago, but we weren't. To have the real need for the Congress to provide the resources and each of you to provide leadership has made a big difference. Again, Senator Klobuchar, thanks for holding this hearing today, and I look forward to a chance to ask some questions as—along with you.

Chairwoman KLOBUCHAR. Alright. Well, thank you very much, Senator Blunt. Our first witness today is the Librarian of Congress, Dr. Carla Hayden. Dr. Hayden was sworn in as the 14th Librarian of Congress on September 14, 2016, supported by both Senator Blunt and myself. She is the first woman and the first African-American to lead the National Library. Previously, she served as CEO of the library in Baltimore, and beginning—and that was beginning in 1993. In 2010 she was nominated by President Obama and confirmed as a member of the National Museum and Library Services Board.

Earlier in her career, she held positions with the Museum of Science and Industry in Chicago, University of Pittsburgh, and Chicago Public Library. She received her undergraduate degree from Roosevelt University and her Masters of Art and Ph.D. from the University of Chicago, where I went to law school.

Next up, Ms. Perlmutter is the Register of Copyrights and Director of the United States Copyright Office. She was appointed to the position in October 2020. Prior to her appointment, she served as Chief Policy Officer and Director for the International—for International Affairs at the United States Patent and Trademark Office. She previously held positions at the International Federation of the Phonographic Industry and at Time Warner. She received her undergraduate degree from Harvard and her law degree from the University of Pennsylvania.

Third, Mary Mazanec. Ms. Mazanec has served as Director of the Congressional Research Service since 2011. Before joining CRS, she worked from 2002 to 2010 with the United States Department of Health and Human Services, where she served in the Office of the Assistant Secretary for Preparedness and Response. She previously served as a fellow to the Subcommittee on Public Health in the Senate HELP Committee. She received her undergraduate degree from the University of Notre Dame and both a Doctorate in Medicine and a law degree from Case Western Reserve University.

Our fourth and final witness is Mr. Jason Broughton. He is the Director, as noted, the new Director of the National Library of Service for the Blind and Print Disabled. Prior to joining the Library of Congress in 2019, he became the first African-American to serve as Vermont State Librarian, where he engaged in strategic planning and established a long term vision for the State Library. For over a decade he has held numerous roles for libraries in South Carolina and Georgia.

He earned his undergraduate degree from Florida A&M, his Master's in Library and Information Science from the University of South Carolina, and his Master's in Public Administration from the University of South Florida. I will now swear in the witnesses. If the witnesses would now please stand. Raise your right hand. Do you swear that the testimony you will give before the Committee shall be the truth, the whole truth and nothing but the truth, so help you, God?

Ms. HAYDEN. Yes.

Ms. PERLMUTTER. Yes.

Ms. MAZANEC. Yes.

Mr. BROUGHTON. Yes.

Chairwoman KLOBUCHAR. Thank you. You will be seated. We will now proceed to your testimony, and we will recognize each of you for a 5-minute statement. We are also excited because this is our first hearing where no one was remote of the witnesses, so this is like a new moment for us in a few years. So we go—start with you, Dr. Hayden.

OPENING STATEMENT OF CARLA HAYDEN, LIBRARIAN OF CONGRESS, LIBRARY OF CONGRESS, WASHINGTON, DC

Ms. HAYDEN. Thank you, Madam Chairwoman, Ranking Member Blunt. We appreciate this opportunity to appear today in person to

discuss the programs and priorities of the Library of Congress. I am very pleased to share with the Committee updates about how we are modernizing to ensure high quality service to Congress and your constituents back home.

Joining me today are the Register of Copyrights, Shira Perlmutter, CRS Director Mary Mazanec, and Jason Broughton, former Vermont State Librarian and who joined us just a few weeks ago in his new role as Director of NLS. I am very pleased to report that the Library continued to operate and maintain productivity while managing the challenges of the pandemic. In fact, our readiness to transition to post-pandemic operations greatly benefited from Congress's support and the recent investments in our ongoing technical transformation.

All Library divisions launched new initiatives to open what we call the digital treasure chest and our digital front door. For example, we celebrated the Library's 220th birthday last April with the release of the LOC Collections mobile app. We held many virtual student workshops and town halls with Members of Congress. We recently revamped our dedicated teachers' website at loc.gov, and we were able to complete the digitization of 23 early Presidential collections from George Washington to Coolidge. Just last month, we held the National Book Festival with enhanced digital features such as streaming and online interactives, as well as a National PBS broadcast hosted by the legendary literary champion LeVar Burton. Expanding digital access is clearly more important than ever, and indeed visits to our websites and pages rose by nearly 50 percent in fiscal year 2020.

We are also moving forward with the design of the new Visitor Experience in the Thomas Jefferson Building, including a welcoming orientation gallery for the first time, featuring Thomas Jefferson's Library; a Treasures Gallery to display the scope of our collections, that will be a rotating treasures gallery; and a youth center to inspire learners of every age. With the recent release of $10 million in fiscal year 2021 funds, the Library will begin to fund the physical construction, fabrication, and the installation of all phases of the project.

Key IT modernization initiatives continue to move forward, building on our progress to date, and this includes modernizing the legacy IT systems for the Copyright Office, CRS and NLS, which you will hear more about today. For example, we released pilots for the copyright recordation and public record systems, we are leveraging the latest advances in web based technologies to upgrade the systems CRS uses to respond to Congress, and NLS is piloting a new e-reader and expanding the braille and audio download services.

I must note that Congress.gov, the official public website for legislative information, is in continuous development with new functionality added every three weeks based on user feedback. In addition, the Library is also pursuing technology upgrades for the system, LCAP, that supports collection activities such as acquisitions and circulation. Physical collections stewardship continues to be a major focus, with the steady transition of collections to high tech, specially designed storage at Fort Meade. The latest Fort

Meade Project, Module 7 will be critical, an actual turning point for the Library's long term storage strategy once it is constructed.

In closing, the Library is moving forward in substantial ways across the agency, and we are excited about the progress that has been made. We are very cognizant of the work that remains to be done and the promise of the future that will enable these efforts. As always, we remain committed to providing excellent service to Congress. We are your Library and the Library of the people you serve. So thank you again for your continued interest and support. I have submitted more extensive written remarks for the hearing record.

[The prepared statement of Dr. Hayden was submitted for the record.]

Chairwoman KLOBUCHAR. Thank you so much, Dr. Hayden. Next up, Ms. Perlmutter.

OPENING STATEMENT OF SHIRA PERLMUTTER, REGISTER OF COPYRIGHTS AND DIRECTOR, UNITED STATES COPYRIGHT OFFICE, WASHINGTON, DC

Ms. PERLMUTTER. Chairwoman Klobuchar, Ranking Member Blunt, thank you for the opportunity to provide an update on the accomplishments of the United States Copyright Office. Our staff has shown remarkable resilience during the pandemic, and we have been able to continue providing high quality services to the American public with minimal disruption.

I am pleased to report achievements on a number of fronts, with important milestones in modernization, implementation of recent legislation, and improved overall processing times for electronic submissions.

We have made significant progress on modernization. We have launched an electronic recordation pilot, as well as a pilot of a new improved interface for our Copyright Public Record System. We expect to move both of them out of pilot and into full production in 2022.

We also began testing a new clickable prototype of the standard registration application. Earlier this year, the Library established a Copyright Public Modernization Committee to enhance communications with stakeholders on IT issues. We have also made great strides in implementing two historic pieces of copyright legislation, the Copyright Alternative in Small-Claims Enforcement Act, or CASE Act, and the Music Modernization Act, or MMA. The Office has been working intensively to set up the small claims forum by the December deadline.

We have been promulgating the regulations to govern its operations, and we have already brought on board all three Copyright Claims Officers. We have contracted for the needed technology, including an online case management system. Finally, the Office issued all regulations needed to implement the MMA, including the framework for administering the new blanket license. As to ongoing operations, at the beginning of the pandemic, the Office quickly transitioned 98 percent of our staff to full or partial telework.

Those operations that require the handling of physical materials have gradually resumed. Currently about 43 percent of our staff are onsite at least part time. That includes the Public Information

Office, which has provided in-person services by appointment since early July. In Fiscal 2020, the Office registered nearly half a million copyright claims involving millions of works of authorship. Over the past year, we have managed to significantly reduce the average processing time for registration claims.

The Office also recorded ownership information for over 230,000 works. The online recordation pilot has already proved successful in avoiding the delays of the existing paper based system. Feedback from users is enthusiastic and processing time is now measured in weeks rather than months. The Office continues to have an active public outreach and education program as we have moved our events online.

Finally, our legal and policy work has continued without interruption, including several policy studies and numerous regulations. So in sum, the past year and a half has been challenging but also productive. We appreciate the Committee's continued support. Thank you.

[The prepared statement of Ms. Perlmutter was submitted for the record.]

Chairwoman KLOBUCHAR. Very good. Thank you. Dr. Mazanec?

OPENING STATEMENT MARY MAZANEC, DIRECTOR, CONGRESSIONAL RESEARCH SERVICE, WASHINGTON, DC

Ms. MAZANEC. Chairwoman Klobuchar and Ranking Member Blunt, thank you for the opportunity to present testimony today on behalf of the Congressional Research Service. With today's testimony, I will update the Committee on a number of important initiatives to ensure that CRS continues to provide support of the highest quality to Congress.

CRS recognizes that today's Congress operates in an environment that is significantly different from its predecessors. Congress juggles an ever increasing workload of complex policy issues during a time of constrained resources. While Congress enjoys access to vast amounts of information, not all information sources are authoritative or without bias. CRS is keenly aware of these challenges and is constantly modernizing its work to optimize its support of Congress.

For example, the service has developed shorter, more concise products to provide timely information and analysis on the issues. In addition, CRS has enhanced its product line, creating and piloting new visual and audio formats such as instructional videos, interactive graphics, and podcasts. These products enable members and their staff to access the Service's expertise at their convenience and in a format they prefer.

In response to evolving congressional priorities, CRS has instituted hiring actions to bolster expertise in emerging or expanding policy areas. For example, CRS has created 12 additional positions to strengthen its analysis of science and technology issues. CRS continues to work with the Library's Chief Information Officer to modernize its IT infrastructure. This multi-year initiative will provide CRS staff with the best resources to create products and services for Congress.

Preserving CRS's institutional knowledge is an important component of the Service's ability to support the Congress. CRS is imple-

menting strategies to manage the knowledge that it creates, including the capture of tacit knowledge held by senior analysts, attorneys, and information professionals.

Last, CRS continues to collaborate with our congressional partners to modernize the process by which data is exchanged for Congress.gov. These modernization efforts will better safeguard congressional data by retiring less secure legacy workflows and establish the foundation for future enhancements. Finally, on behalf of my colleagues at CRS, I want to thank the Committee for its continued support.

[The prepared statement of Ms. Mazanec was submitted for the record.]

Chairwoman KLOBUCHAR. Mr. Broughton?

OPENING STATEMENT OF JASON M. BROUGHTON, DIRECTOR, NATIONAL LIBRARY SERVICE FOR THE BLIND AND PRINT DISABLED, LIBRARY OF CONGRESS, WASHINGTON, DC

Mr. BROUGHTON. Chairwoman Klobuchar, Ranking Member Blunt, and members of the Committee, it is an honor to appear before you representing the National Library Service for the Blind and Print Disabled. Thank you for this opportunity to join you today.

Congress has played a key role in NLS's creation, history, and ongoing successes, and I look forward to working with you as I begin my tenure within NLS. As only the third NLS Director in the last 48 years, I am honored and humbled to lead this incredible team as we continue with an extraordinary work. Drawing from my life and professional experiences, most recently as the state librarian for the Great State of Vermont, I am energized by and enthusiastic about contributing to NLS's unique mandate and mission.

Also as a seasoned educator, I work together and share information and knowledge and make it available and accessible to citizens of all ages, backgrounds, and walks of life. My diverse background has prepared me well to serve you and the Library as an NLS Director and has positioned me to understand what Americans and state entities need and should expect from NLS. NLS and its network of 98 libraries span the Nation, having served the American people for now 90 years.

All along, we have been able to rely on the generous support of Congress. Because of this, we are thriving. Despite the challenges of COVID–19, NLS continues to serve hundreds of thousands of patrons via its partner libraries. During fiscal year 2020, NLS circulated over 20 million books, magazines and music items. NLS's braille, audio, and reading download interface, also known as BARD, now contains an astonishing 146,733 items, and the overall collection includes over 310,000 accessible items.

Congress's support has been indispensable to the success, from increasing our base funding each year to supporting our additional funding request for our IT modernization work and e-reader development, to updating our statutory authorization to meet current needs. We and our patrons thank you. Your support allowed NLS working with the Library's Office of the Chief Information Officer to move BARD to the cloud, increasing download speeds for

audiobooks. Your support for our e-reader project has resulted in thousands of devices now in the hands of patrons.

Your legislative support allowed NLS to update its name and empowered NLS to participate in Marrakesh Treaty, allowing patrons access to even more materials, including to date 1,163 Marrakesh works available in BARD in eight languages. NLS with your assistance, was able to also update regulatory language to ease access for reading disabled individuals, resulting in a 35 percent increase to this patron group.

In closing, as the new Director of NLS, I am dedicated to NLS's excellent work to serving more patrons and to leading NLS into the next 90 years to ensure that all may read. I am happy to answer any questions that you may have. Thank you.

[The prepared statement of Mr. Broughton was submitted for the record.]

Chairwoman KLOBUCHAR. Thank you very much. Excellent job. Senator Blunt will go first, and I think Senator Ossoff is out there now. I will go after that. But go ahead, Senator Blunt.

Senator BLUNT. Well, thank you, Chair. Dr. Hayden let's talk just a little bit about the visitor experience master plan. One, how are we doing on our effort to afford it? I know you said in your testimony you were ready to start. I think it would certainly anticipated that we will have a appropriations process this year, and I think that final $10 million will provide the $40 million that was the commitment, outside of private funding. So am I right that you are ready to start? Two, what does your private funding situation look like now?

Ms. HAYDEN. Well, thank you for this question. We were able to continue to make very solid progress during the pandemic. Most of the work during that time had to do with design elements and things that lent themselves to the digital and teleworking environment. At this point, we have nearly $14 million in cash and commitments for the private fundraising.

Mr. David Rubenstein made a substantial gift personally, and is very engaged in the efforts to continue that. We have several outstanding proposals that we are very hopeful about so that we would be able to complete the private fundraising. We also were able to secure some major gifts from the Mellon Foundation, $15 million over a certain number of years, $10 million from the Kislak Foundation, and $500,000 from the Ford Foundation that will help with the programing that will supplement. So in terms of each of the projects, the Treasures Gallery, and these projects, the three will be opening in phases.

The Treasures Gallery is scheduled to be opening in the fall of 2023. There have been some design changes, and so we are very pleased to see that project move along and stay very much on schedule. The Orientation Gallery will be able to open in the spring of 2025, and that has some more complicated construction and design things with the Oculus that will look up into the reading room, and some life safety issues. I do want to take this opportunity to thank the Architect of the Capitol—that whole Department has worked with us all the way. They have been very helpful with that.

Then the youth center is scheduled to open in the summer of 2024. So these, with the additional funding that will be coming, we will be able to move into the fabrication stage and with detailed plans and to get into construction. We are preparing the bid documents for that part. So it is moving ahead, and it is starting to get pretty exciting because we have more renderings, we have focus groups, we even had a focus group of congressional young people who were helping us with the youth center.

Senator BLUNT. Great. Great. Let me let me ask another question. As you put that visitor experience master plan together, what do you think you have learned that will—you will use in other Library of Congress decisions in the future? Are there things you have learned that you will be recommending to other large libraries or libraries generally that you are going to be sharing as you are speaking to groups and talking to librarians after you have thought about making the Library a different place than it has been?

Ms. HAYDEN. What has been interesting has been the confluence of what we have had to do in terms of the pandemic and moving to more online programing. We were able to incorporate some of those lessons learned, like the fact that you can have meaningful author talks and all types of things that we might not have considered to such an extent if we hadn't had the experience that we had in the last year or two. So it really informed, and those are the lessons learned that most libraries throughout the country are incorporating, because the Library of Congress, for instance, was able to spread out throughout the country with virtual programing for instance, with the National Book Festival.

We partnered with Centers for the Book in every state to have the book festival in your community. So those types of things will allow us to make the in-person experience more meaningful, for instance, in the Treasures Gallery, and possibly in the Orientation Gallery, you will be able to see and talk to a conservationist in the conservation lab in the Madison Building and see them do things and give demonstrations.

So those types of things, using technology in a way that engages people and allows people who aren't physically there to also participate.

Senator BLUNT. Okay, thank you. I will have some other questions later, Chairwoman.

Chairwoman KLOBUCHAR. Thank you very much. Thank you. I will start with you, Dr. Hayden, could you talk about what you are doing to ensure the public has meaningful access to such a vast amount of information on the digital—on your digital collection? Because I think we all know you can have stuff out there, but it is not easy sometimes for regular people to access it unless it is somehow triaged in a format where they can get it.

Ms. HAYDEN. Right. I mentioned the new app for Library collections in your pocket. Doing much more, and this was also something that was accelerated during this time, with connecting and partnering with other institutions and using social media in some innovative ways and connecting and making our website more robust and calling it our digital front door. So those efforts.

Now, the digital collecting as well, and our plans on how we are going to digitize our manuscript collections, I mentioned the 23

Presidential collections, those efforts are continuing, and we know that that is another way to make sure that people have access. So it is a combination.

Chairwoman KLOBUCHAR. Good. What is the Library doing to identify and prevent cyber-attacks? We have had so many Government agencies as well as businesses be victim to that.

Ms. HAYDEN. Yes, and we are part of that. We have professionalized our processes. In fact, our new CIO, Judith Conklin, who succeeded Bud Barton, is a cybersecurity expert. She is right behind me, and she has extensive experience not only in the Library, but she is a veteran.

In fact, she was in charge of that aspect. We have implemented NIST IT security standards. One-hundred percent of our IT systems currently have authority to operate. That is up from about 35 percent in that 2015 overview of the Library's IT operations. That was something that was noted that we had to concentrate on. We did experience nearly 200,000 attempted cyber-attacks last year, and so we are continuing to fortify. We have a request in the budget for fiscal year 2022——

Chairwoman KLOBUCHAR. Good segue.

Ms. HAYDEN [continuing]. to allow us to expand our IT security in the cloud.

Chairwoman KLOBUCHAR. Okay, very good. Thank you. Mr. Broughton, you mentioned in your testimony that NLS is currently testing its braille e-readers in a pilot program. When is that testing going to be completed? When do you expect those devices to be widely available?

Mr. BROUGHTON. Thank you for the question. This is one of our areas that I think we are very, very pleased to be talking about regarding the types of policies that we are doing. We are on track for looking at a variety of items to make sure that they are prepared in a way that I would say is very, very efficient, effective, and also part of our modernization standard in what we are looking at.

We hopefully expect that as we go through we have a lot of pilots, anything from hardware, lockdown devices, all the way to a few conversational things, such as smartphones and looking at make sure that patrons are able to utilize them in a very strategic way and that they enjoy them.

We hope that they are also accessible in a way that allows us to make sure that they are secure and that they are freely available. So we are looking at something around, let's say, next year in the spring. We definitely have put out about 4,500 and we hope to up that to about 9,000 very, very soon.

Chairwoman KLOBUCHAR. Okay, very good. Ms. Perlmutter, I wanted to just mention, I know we keep track of this because one of the issues for us is how long we hear from people about how long it takes to process copyrights.

I think you guys last year began accepting certain copyright recordation documents electronically for the first time and then reduced average processing times for copyright registration applications by almost a month from four to three months compared to two years ago. Do you expect to see even better processing times as the records go fully electronic?

Ms. PERLMUTTER. Yes, I am glad you raised that. We are very pleased that we have been able to bring the processing times down. We are now getting the vast majority of registration applications in electronic form. For those that are fully electronic, by which I mean both the application and the deposit are electronic, we are processing them on average in less than two months. It is very, very quick.

For those claims that include some physical materials, we are bringing more staff back onsite and expect to be able to move past whatever happened during the pandemic over the coming year. But we do think overall, we will see additional decreases in processing times. It is hard to get too much faster. We are not going to be able to do them overnight, but we are already seeing some declines even since—even in the second half of this past fiscal year.

Once we get past some of the backlogs from the pandemic that will manifest itself.

Chairwoman KLOBUCHAR. Very good. Since we have been joined by the Senator from Tennessee, I thought I would bring up the Music Modernization Act, bipartisan legislation that I supported that became law in 2018 to update the music licensing process, making it easier for songwriters to receive compensation from digital streaming services.

In April of this year, songwriters got their first payments from the newly created collective that issues licenses to streaming services, collects, distributes the royalties. I know that you have issued a number of rulemakings. What has been the overall response? Your Office released a report in July making recommendations for how the new collective can reduce the amount of unclaimed royalties and ensure songwriters are receiving their earned compensation.

What can you tell us about the extent of that issue? How many royalties remain unclaimed? I know it is a lot, but maybe just tell us about overall response to rulemaking and then the royalties remaining unclaimed, and then I will turn to my colleagues, and I will ask you questions at the end here. Thank you.

Ms. PERLMUTTER. Thank you, Madam Chairwoman. Well, to implement the MMA, we actually had to complete nine different rulemakings. I am happy to say that both songwriters and the music industry generally were very active participants in the process.

So we actually received overall 800 written comments and hosted dozens of meetings with affected parties, including songwriters. Going forward, we are going to be looking at whether any additional regulatory activity is appropriate because a number of our rules were adopted on an interim basis. We are continuing to be available for meetings with stakeholders about any need for further adjustments.

So that is always a possibility. But so far, we have had no indication that the regulations or the statute are not working as intended. So the next step for us, in addition to all of the outreach we are doing to songwriters, and I can talk more about that, and the possible regulatory adjustments is that we will be reviewing the collective, the MLC, the Mechanical Licensing Collective's performance as part of the statute's five year designation process. So

that will also be continuing. In terms of our report, broadly speaking, we recommended that the MLC adopt significant measures to reduce unclaimed royalties, including by maximizing outreach and transparency.

In terms of the extent to which there is an issue, in terms of the amount of unmatched historical royalties, the MLC reported that in February, 20 digital services transferred a total of about $424 million, so it is holding that money. Over the course of this year, the MLC has been receiving monthly payments from the services under the blanket license and the aggregate amount of the new unmatched royalties as opposed to historical has of course grown as those payments have been made.

We don't know the precise amount of current unmatched royalties that the MLC is holding, but it has reported distributing about $200 million to date with an increasing match rate, which now averages about 85 percent, which is, I think, higher than the industry average.

Chairwoman KLOBUCHAR. Okay, very good. Thank you for that thorough answer. We are going to go to Senator Capito, then we go to Senator Ossoff and then Senator Hagerty. Thank you.

Senator CAPITO. Thank you, Madam Chair, and thank you for having the hearing. It is nice to see you again, Dr. Hayden. Again, I want to thank you several years ago for visiting several libraries in my State of West Virginia, and I have a very large picture in my district office of all those beautiful children as you were reading aloud to them. So thank you for that and I hope you are out moving around again. My first simple question, and you might have already testified to this is, is the building open, the main building here, open for visitors?

Ms. HAYDEN. Yes, and thank you for that. Since July, we have had timed passes, Thursday, Friday, and Saturday, for the general public. Before that, we had by appointment for researchers, and so that started earlier and had a special electronic reading room for that. So we have been doing that and it really has been heartening to see the number of people who make the appointment online and are able to come in.

Senator CAPITO. What about the work force? I noticed in some of the backup data that several areas of the work force is still remote working. Is there a plan to get everybody back? What is your——

Ms. HAYDEN. Oh yes, we had a phased operation plan. I have to say this is again—thank you to Congress for the investments in our IT infrastructure, we were able to go to teleworking in almost a seamless way, we increased that about 800 percent in terms of the number of staff who can telework.

The teleworking, and what we have been able to do, for instance, in Library services, we were able to have more of those collections digitized. We were able to have transcriptions going on. With the plan, we are in about—we are in the third part of a three part plan to have as many more staff members back onsite. It has been interesting because we have had quite a bit of communication with staff from the very beginning.

Senator CAPITO. Is there resistance to coming back since they can—they have already proven they can work remotely effectively?

Ms. HAYDEN. No, no. In fact, it has been interesting. Some people are "Zoomed out."

Senator CAPITO. Right.

Ms. HAYDEN. Just to say that they look forward to it. But they also have gotten very good at how you can work together remotely and also still have different experiences. For instance, Ms. Perlmutter might even expand on that, the Copyright Office just had an event outside and brought staff in together. So the resistance—we had a staff survey.

Eighty-five percent of the staff members said that they think that we have been very supportive of their health issues and concerns, and they want to greet the public. One thing we have done in terms of our volunteers, we have virtual volunteer stations. So our volunteers were able to, when people are there, especially in the Jefferson building, they can interact with a virtual volunteer.

Senator CAPITO. That is interesting. I know when I was the appropriator for—that included the Library, one of the big issues was storage and records. I think that you have an alternative location where you are moving a lot of your records. How is that project going?

Ms. HAYDEN. Yes. That is the long term physical storage at Fort Meade. We have six physical storage units at Fort Meade, Maryland, and we are planning for the 7th module. I am hesitating a little bit because the funding for that had been reprogrammed and so we really need this 7th module, and they are going to be nine total. That is moving along.

Senator CAPITO. Okay. I don't know why I had it in my mind that you would have gone down to Southwest Virginia for some——

Ms. HAYDEN. Oh, that is Culpeper.

Senator CAPITO. Culpeper. What is——

Ms. HAYDEN. Oh, that is the David Packard Center. That is where the moving images and sound recordings, and it is one of the largest. That has been able to, of course, continue. We have the physical archives of companies and things like that.

Senator CAPITO. Okay. Alright. Thank you.

Chairwoman KLOBUCHAR. We were just planning a field trip down there, Senator Blunt, for the Committee. Next up, Senator Ossoff.

Senator OSSOFF. Thank you, Madam Chair, Ranking Member Blunt. Thank you to our witnesses. Thank you, Dr. Hayden, for your service. Dr. Mazanec, I would like to engage with you about the extraordinary work that you and your team do it at CRS. My staff and I rely upon your experts, your research, your analysis every day. The decisions of Members of Congress make are only as good as the information that we have on hand to make judgments and conduct analysis.

We are too often surrounded by partisan narratives, media narratives, one sided talking points, talking points that reflect the interests of outside groups and their funders, talking points that represent the interests of executive agencies. For Congress to have its own research service that is dedicated to objectivity and empiricism and sound information is so important.

I want to discuss how we might grow those capabilities, what your key shortcomings are, where you don't have sufficient experts.

Because as invaluable as the work that you and your team do is. I would like as a Member and I would like for my staff to have access to more of it and faster round the clock and for your research and analysis capabilities, for your fact gathering capabilities to rival those of executive agencies who often have themselves more research capacity than the entire legislative branch does so.

What would be your vision, if you were less resource constrained, for the growth of the Congressional Research Service to serve that mission?

Ms. MAZANEC. Thank you for that question. If I had unlimited resources, I definitely would bolster our expertise, not only in high demand areas, but also in emerging areas. I would also want to bring on staff to overlap with individuals that are nearing retirement so that we could pass off information. There are other initiatives that I would like to put resources on. I mentioned one in my testimony, the Knowledge Management Initiative.

We really need to capture our work product, the knowledge that we are creating, and also capture the tacit knowledge. What the pandemic has really underscored is the importance of IT as a tool for us to do our work and to publish it and present it to Congress. We are in the middle of an IT modernization initiative, but additional resources would allow us to make sure that our IT systems are continually supported. A lot of the initiatives are dependent on developmental work from our colleagues in the Office of the Chief Information Officer.

The other area that I would put resources on besides personnel and IT would probably be research materials. Some of the data bases, especially some of the online resource materials, are costly. That would be another area that we would hopefully be able to add resources to.

So there is a lot of things that we can do. We leveraged the Libraries, offices and support. Obviously, to bring on more staff requires H.R. experts, both within CRS and within the Library's H.R. Office. That would be another area that I would like to reinforce. So there is all sorts of things that is only limited by the imagination of myself and my colleagues at CRS.

Senator OSSOFF. The resources that we allocate for these purposes. That is where I think we have a job to do. I would submit to colleagues on both sides of the aisle that for the legislative branch to function at the highest potential that we need to be able to rely upon information and research that is conducted by the legislative branch.

That the institution in mind, just a few months here thus far, is heavily reliant on outside groups and executive agencies for information, and the information that we receive from those parties reflects their interests. That, I think can have a negative impact on our ability to come to our own conclusions independently. Well, how long does it take you to staff up, if you wanted to add personnel in key issue areas? You know, what is the hiring process? What is the—yes, please. What is the——

Ms. MAZANEC. CRS follows the merit selection plan laid out by the Library. It usually takes a matter of months to really bring somebody on board from the outside. On an annual basis, we probably do an average of 45 hires a year. Some of those are new posi-

tions. Some are back fills to people that have departed, left for other opportunities, or who have retired. With more resources we probably could expedite the process and bring on more people.

Senator OSSOFF. Thank you, Dr. Mazanec. Let's meet in person, and Dr. Hayden love to sit down with you as well and talk about some development of a strategic vision to grow your capabilities. Thank you.

Chairwoman KLOBUCHAR. Thank you, Senator Ossoff. Thank you for your comments about relying—both sides relying too much on talking points and information from groups as opposed to independent research. You are wise for your short time here on the Committee, so thank you. Yes, Senator Hagerty.

Senator HAGERTY. Well, thank you, Chair Klobuchar, Ranking Member Blunt. It is a pleasure to be with you both today. I want to thank all of our witnesses too. I appreciate your being here. As Chair Klobuchar might guess, I would love to talk about the Music Modernization Act and thank her for her leadership in bringing that to bare. It is an issue that is near and dear to people in my home State of Tennessee.

Ms. Perlmutter, I am going to turn my questions to you because the folks in my home state really care about songwriters and their music. As I think about my state, the birthplace of country music is in Bristol, and the music heritage runs all the way through our State to Memphis, and of course, you know, that is the home of the Blues. Nashville just seems to grow every day as a hub for music.

We have a very—a very robust entertainment industry there, and it really is the heart and soul of Tennessee's culture. In 2018, my predecessor, Senator Lamar Alexander, was a driving force behind the Music Modernization Act, and as I understand it and talking with him, it is the most comprehensive overhaul of music copyright laws that has taken place in decades. The legislation ensures that songwriters are paid a fair market value for their work, and it makes it easier for them to obtain compensation for use of their music by streaming services.

Ms. Perlmutter, your office plays a key role in ensuring that the Music Modernization Act is properly implemented, and I want to point out one specific success that you have already mentioned here today, and that is already paying great dividends for the industry, and that is the mechanical licensing collective, the MLC that you mentioned, which is the nonprofit entity that is designated by the United States Copyright Office to collect royalties from streaming services and distribute those royalties to songwriters and music publishers.

The MLC also gives artists much more control over their works and their data. In 2021, the MLC began administering blanket mechanical licenses and distributing royalties. I appreciate your update on the MLC and what they have already distributed, and what you have distributed to songwriters and music publishers is making a real difference in their lives. I am also pleased that songwriters and publishers are increasingly getting fair market value for their work, and that is happening with much more speed and much more certainty, so I applaud you for that.

Ms. Perlmutter, I would like to not only thank you for your leadership in implementing the Act, but I would like you to just take

a few minutes to describe some of the successes that you have observed as you have implemented the Act, and if you can identify next steps that you would see to increase that success.

Ms. PERLMUTTER. Well, we have been very pleased to see the system get up and running in January as it was supposed to, and to see the royalties start to be paid out on a timely basis. So we are following that very closely. Most of the feedback we have heard has been positive. We are not hearing a lot of complaints, although I am sure there always are some in any new system——

Senator HAGERTY. They come to my office, I think.

Ms. PERLMUTTER. That may be the case. Please feel free to send them along to us. We are doing a lot of educational outreach because as the statute and the legislative history recognize, that is a key component to making this new system work because it is such a major change. So we have already engaged in more than 50 different outreach activities, including very much focusing on educating songwriters about how to claim ownership of works in the MLC data base and how to receive royalties for their use. We have a website that informs the public of how the system works and what the relevant dates are, the implementation dates. We have prepared extensive educational materials, a lot of them in writing. We have online video tutorials.

We have a collection of interviews of Members of Congress who were involved in passage of the legislation, and we also have created an MMA email newsletter. So we are very actively involved. I shouldn't leave out the fact that we are actively engaging and partnering with organizations that represent songwriters and others who are affected so that they will get the word out to their members.

So I think all is going well. We don't, of course, oversee the day to day operations of the MLC, but we are watching how it is operating and what is happening. You know, as I have said, because our regulations were mostly issued on an interim basis, we are keeping watch to see whether any adjustments need to be made and we will be exercising oversight through the 5-year designation process.

Meanwhile, we have advertised that we welcome feedback from stakeholders via email during the interim period as we head along to the 5-year date.

Senator HAGERTY. Well, I appreciate your continued oversight. If there is anything that you need from the Senate, from the Congress, I hope that you won't hesitate to let me, and my office know. I am certain that Chair Klobuchar feels the same way as other Members of this Committee that have had such a such an impact on passing this legislation. So thank you for the work that you are doing.

Ms. PERLMUTTER. Thank you, Senator Hagerty.

Chairwoman KLOBUCHAR. Thank you for those great questions. Next up, Senator Blunt has some followup questions.

Senator BLUNT. Well, thank you. Thank you, Chair. Mr. Broughton, does every state have a Library for the blind and print disabled?

Mr. BROUGHTON. You have a network of 90 libraries across the country and they can be affiliated through state libraries or their own separate library for the blind specifically.

Senator BLUNT. How was Vermont set up? Did you have the library for the blind under your jurisdiction there?

Mr. BROUGHTON. It was. It was under the State Library. In fact, it is known as the Vermont Department of Libraries, so I was the State Librarian Commissioner, and it was organized as its own unit within the State Library. One of the things that we tried to do early on when we heard about the Marrakesh Treaty was to actually figure out in our small way in Vermont what we could do to kind of be a part of that as it was being worked upon.

The most unique thing that we did as we work to rename the actual service, the talking book service. We felt that we wanted to talk about these services as opposed to the service population, so we immediately rebranded it the ABLE Library, which stands for audio, braille, large print, electronic resources.

Our Governor and of course, the agency Secretary that we were under were really, really thrilled. It sounded like the Vermonters there who love the change took off with it and it has never stopped, and we didn't look back.

Senator BLUNT. Are you still using the traditional equipment or like the levee system that the Library put in has audio books that you can get in several different ways. How are you getting information to people now?

Mr. BROUGHTON. Goodness, under that service, I would say, along with our network, there are transitions. We are in a sense looking at a variety of things. We are having some of our older modes come back to us in the sense of the cartridges or the blue cases that people would have actually know.

I remember when there were that actually green cases, when I was a child, remember that there was a record player. So you are always talking about the change in format and design having to always be something that we need to be cognizant of. Right now, we are constantly letting people kind of play around with our pilots so we can get a better understanding of what our user base might want to participate within.

Geography plays a role in that when you talk about things with telecommunications, so it is streaming options, smart voice activated things need to be also considered. So we are having a lot of things examined by our user base, particularly in your home state with the Wolfner Library.

Senator BLUNT. I think Wolfner has about 8,000 active subscribers and more than half of them are over 65, but still, it is an active network.

Mr. BROUGHTON. I would definitely agree. A lot of our user base is of a certain demographic, and looking at expanding what we like to do, we hope to utilize the service where it is a service for all persons from including reading disabled all the way through vision impaired and physical handicap along with, I would say, a generation of young and youth oriented people be a part of the service.

So we are looking to have, I would say, everyone to understand what that service is, as opposed to viewing it in a unique way for certain types of individuals. There is just a lot of things that we

were trying to do in a wonderful way as we prepare for the future because there is a lot of wonderful options that we have at our disposal to examine. With that, we have to make sure our patron base has those options that are applicable, best use for them, which includes we will probably always have a hard line in the sense of hardware being needed.

Not everybody is going to be able to stream or download if technology allows that. So we will probably have to have some devices that we will always retain or migrate to like your own, a smartphone, for example, could be used as opposed to those options for the future.

Senator BLUNT. Yes, not a question, but I think and maybe it was the March Inspector General Report this year that said that this agency had traditionally had a hard time staying on time and on budget. I am sure that that is one of the things you intend to focus on. At CRS, in the modernization area, I think you were behind schedule in that and then finally terminated the contract. You want to talk about that just a little bit?

Ms. MAZANEC. So our IRIS initiative is a multi-year, multi-project initiative to modernize IT systems that are CRS specific. We are in year four of the initiative. In the last year, we had to terminate contracts with two vendors because they were unable to deliver the final product. Those contracts have been reissued. We went through a solicitation project—process to get new vendors on board.

The IT Modernization Initiative was actually conceptualized now six, seven years ago. Our approach has changed from an on premise approach to now a cloud based approach. That may actually help facilitate us moving forward on modernizing our systems.

My hope is that we can still bring IRIS to completion on schedule and on budget, but IT costs have increased, and we are adopting a new approach for our authoring and publishing system. Now all that being said, we have made significant progress in some of our work streams, such as the TAP program, which is our bill—our text analysis program, also in our taxonomy efforts.

Senator BLUNT. Right. Well, the lowest proposal is often not the best proposal, certainly not if they can't—and not saying you took the lowest proposal but having a sense that people can do the work really matters. I think, Ms. Perlmutter, you had a situation a little bit like that where you had a vendor that just didn't perform. I think that decision surely was made before you got there. Talk about that a little bit.

Ms. PERLMUTTER. To be honest, Senator Blunt, that was before my time and I am not really familiar with the circumstances, but we can certainly get you that information.

Senator BLUNT. So that project was, vender was scheduled—was canceled before you got there? Am I——

Ms. PERLMUTTER. I believe so. I am not sure which—but we can get—but we can certainly provide you all the details after the hearings, sir.

Senator BLUNT. Okay. Well, I think the vendor effort failed, so you can get me some more information on that. My last question for you, talk a little bit about the implementation of the CASE Act,

the effort to make it easier for people who aren't surrounded by attorneys and litigators to protect themselves.

Ms. PERLMUTTER. Yes, thank you. Senator, this is one of my favorite topics, actually. So we are very excited that we are in the process of setting up this new small claims tribunal, and we have been working very intensively to get it set up by the statutory deadline. At present, we expect to have all the necessary elements in place before the end of the year. We have hired already the three Copyright Claims Officers, they are on board in the office. I just saw them this afternoon and we are on track to finalize all of the hiring of the rest of the staff. We issued a notice of inquiry to solicit public comment about all aspects of the procedures to be followed. We have now put in place a series of rulemakings to propose the practices and procedures for the Board.

So several have already closed, some are still out for comment, and there are a couple of more still to come. Then we have been collaborating with the Library, the OCIO and other parts of the Library, to ready the necessary office space and the IT that will be needed for the Board to operate. So things are going very well, and we are looking forward to having the Board up and running.

Senator BLUNT. You are—the Board that will serve as sort of an arbitration board, is that how that is envisioned to work?

Ms. PERLMUTTER. Yes, they are able to hear claims, disputes involving copyright that have a value of up to $30,000 per dispute, and it can be a claim brought by a copyright owner alleging infringement or someone who wants to use the work and wants essentially a declaratory judgment of non-infringement before they start, or someone who is claiming that there has been misrepresentation in a notice under the Digital Millennium Copyright Act. So the three Officers will hear the dispute—most of it will be done remotely—and issue a decision.

Senator BLUNT. Right. Dr. Hayden, when we talked the other day about the veterans project, there were two things we talked about that I would like you to comment on a little bit. One is the gold star impact and two is efforts to get recent veterans to go ahead and begin to talk about that—their experiences, while those experiences are still fresher in their mind and maybe get them a little more comfortable with sharing the experiences that they want to share.

Ms. HAYDEN. We are very pleased that the gold star family aspect has been added to what the Veterans History Project has been able to do. We have over 110,000 oral histories already. What that aspect has done is given us outreach much farther than we would have had with the actual veterans themselves. These are family members, and one actual mother told me that she was disappointed that her son couldn't talk about it.

With this act, the mother can talk about it and expand on that. That has been something that has helped us when we work with the members. We worked this past year, your office, and with over 52 members to do videos, to do public service announcements, and town halls, to talk about the Veterans History Project. That will continue.

We are working on technology aspects with that so that people would have possibly an app and they could use and record and

have that opportunity to record with direction, the veterans or the family members in their lives. Great participation in terms of working with veterans groups with the more recent conflicts and engagements because they are especially—the veterans that come from Vietnam—sometimes, there is a reluctance there and so we have made a concerted effort with that group and then the recent engagements as well.

Senator BLUNT. Thank you, Chair.

Chairwoman KLOBUCHAR. Well, very much, thank you, Senator Blunt. I—you know, there is the old saying, not everything has been said, but I haven't said it, or I haven't asked it in the United States Senate. I am not actually going to ask any more questions. I think my colleagues did an incredible job and I want to thank Ranking Member Blunt and the Members of the Committee for conducting a very productive and informative hearing.

I am also grateful to all of our witnesses for appearing before us in person today and for the work you are doing on behalf of our Nation's Library. Thanks to your ongoing efforts, the Library of Congress continues to make significant progress in implementing recommendations to address the challenges that it faces and is taking important steps to modernize and adapt to an increasingly digital environment while continuing to improve the experience of those who visit in person.

I am looking forward to seeing the conservationist as you described it, Dr. Hayden. In today's hearing, we heard more about varied and essential services offered by the Library. Whether you are an artist, Ms. Perlmutter, looking to protect your work, whether you are blind or print disabled in need of reading materials. By the way, Mr. Broughton, you did a very good job for your first time in front of us. You know, even——

Mr. BROUGHTON. It is appreciated.

Chairwoman KLOBUCHAR.—in reference to the Missouri Library was especially impressive. Or whether you are someone seeking information about policy issues. Very, very good, Ms. Mazanec. I think you have clearly a new fan in our—one of our newest, our newest and youngest senators, Senator Ossoff.

The Library has resources for you. I look forward to continuing to work with all four of you and the Members of this Committee to support your important programs. The hearing record will remain open for one week and we are adjourned. Thank you.

[Whereupon, at 4:22 p.m., the hearing was adjourned.]

APPENDIX MATERIAL SUBMITTED

Oral Statement of Carla Hayden
Committee on Senate Rules and Administration
Oversight of Library of Congress Modernization Efforts

October 20, 2021

Madam Chairwoman, Ranking Member Blunt, and Members of the Committee:

Thank you for the opportunity to appear before you today to discuss the programs and priorities of the Library of Congress. As the head of the nation's oldest federal cultural institution, I want to begin by expressing my tremendous pride in this agency's mission[1] and the work of its dedicated staff, especially over the past eighteen months. The Library continued to operate and maintained productivity while managing the challenges of the pandemic. We are resuming on-site services as conditions allow, with new procedures to ensure the safety of visitors, patrons and employees. During this time, my management team and I have also ensured that our many modernization initiatives continue to move forward, and much progress has been achieved.

The Library of Congress embodies, as a whole and within its esteemed parts, a pre-eminent repository of knowledge. The Library is the home of the U.S. Copyright Office, the Congressional Research Service (CRS), the Law Library of Congress, and the National Library Service for the Blind and Print Disabled (NLS). As the main research arm of the U.S. Congress, we provide authoritative, nonpartisan information to Members of Congress and their staff. Scholars, researchers, and content creators draw inspiration from our collections. Our service units also supply reference services to the U.S. Courts, federal agencies, and libraries throughout the country.

Each day, we serve our users through our many programs, lectures, exhibitions, and online resources. Today, the Library holds nearly 171 million items in all formats and languages and has the world's largest collections of legal materials, films, and sound recordings. According to our most recently compiled data, the Library welcomed more than 565,000 on-site visitors, putting us on pace to exceed our 2019 numbers until the building closed to the public. Our web pages attracted 174.8 million visits, an increase of more than 50% compared to FY19. More than 8,400 congressional participants attended 213 CRS seminars. In addition, CRS responded to over 75,000 legislative policy requests, which also represents an increase compared to FY 2019. The U.S. Copyright Office issued more than 443,000 copyright registrations. The Library responded to more than 802,000 reference requests from Congress, the public, and other federal agencies, including the direct use of Congressional Research Service reports, and nearly 20.3 million copies of braille, audio, and large-print items were circulated to blind and print disabled patrons.

I look forward to updating the Committee on the Library's activities. With this testimony, you will read about new appointees to Library leadership, the work of our service units and divisions, operations during the pandemic, the status of modernization initiatives, and our work to expand access, enhance services, and engage even more users.

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[1] The Library's mission is to "engage, inspire, and inform Congress and the American people with a universal and enduring source of knowledge and creativity."

New Appointments

The Library recently welcomed several new leaders to management positions. The Committee will hear from two new leaders during this hearing– Register of Copyrights Shira Perlmutter and NLS Director Jason Broughton. Last October, Shira Perlmutter became the 14th Register of Copyrights and the Director of the U.S. Copyright Office. I congratulate her on her first year in the role and thank her for the leadership she displays in moving forward important policy and modernization initiatives for the office. The National Library Service for the Blind and Print Disabled (NLS) also has a new director following Karen Keninger's retirement in May. I thank Ms. Keninger for her nearly decade-long service to NLS. The Committee will have the pleasure of hearing from Jason Broughton, NLS' incoming director. He is a former Vermont State Librarian and is just a few weeks into the role. I welcome him to the agency and look forward to working with him as NLS continues to innovate.

Other changes impacting Library leadership include the retirement of Bud Barton from the position of Chief Information Officer (CIO) in September. Mr. Barton joined the Library in 2015. He and his capable team commendably took on the challenge to professionalize and modernize our information technology (IT) operation. With his retirement, I am pleased to elevate 24-year Library veteran and former Deputy CIO, Judith Conklin, to lead as we build upon the progress already made. The Library also saw the retirement of Inspector General (IG), Kurt Hyde, this year. Kimberly Byrd, former deputy to the IG, now serves as Acting Inspector General. Finally, the Library honors the life and service of Jane Sánchez, former Law Librarian of Congress, who passed away earlier this year. She is succeeded by Aslihan Bulut, the former deputy law librarian for collections. Associate Librarian Robin Dale has been appointed to fill the other role Ms. Sánchez held as Deputy Librarian for Library Collections and Services.

Responding to the COVID-19 Pandemic

The COVID-19 global health pandemic presented a unique challenge faced by no other Librarian except for perhaps Herbert Putnam, the 8th Librarian of Congress, who served during the 1918-1919 flu pandemic. When the pandemic struck the United States in March 2020, the Library of Congress quickly adopted new approaches to help carry out its mission of serving Congress and the American people while also keeping staff and visitors safe. As of mid-October, 92 percent of our staff is fully vaccinated. According to a 2020 survey of Library staff, 85 percent reported that management demonstrates a commitment to health and safety. I thank the Library's Health Services Division and also the Office of the Attending Physician for their coordination and guidance throughout.

Our readiness to transition to post-pandemic operations greatly benefitted from Congress' support and recent investment in our ongoing technical transformation. The Library's IT infrastructure sustained remote operations for as many as 4,000 concurrent teleworkers – an eight-hundred percent increase – with essential services including the Congressional Research Service (CRS) and the Copyright Office able to operate at capacity.

Planned digital initiatives, such as the "LOC Collections" mobile app, were accelerated to provide new ways for Congress and the public to engage with the Library. Library divisions launched new initiatives to open the digital treasure chest and connect with users wherever they live in the country. For example, early in the pandemic, the Library created the new "Library of Congress: Engage!" webpage as a centralized hub to direct online visitors to concerts, book talks, resources for teachers and students, and other events reimagined and sustained as digital programs. More recently, we revamped our dedicated teacher's website (loc.gov/programs/teachers/). CRS launched a webpage that offered nearly 1,000 products and resources related to the pandemic. A new lunchtime lecture series for congressional offices utilized video conferencing to offer talks on current and historical events for Members of Congress and their staff. Expanding digital access is clearly more important than ever as people become accustomed to streaming and interacting with their favorite programming from home. Just a few weeks ago, the Library held its second National Book Festival since the pandemic began, with video-on-demand, online interactives, live in-person events and virtual programming tied to local communities, and a national PBS broadcast hosted by the legendary literacy champion LeVar Burton.

Research and reference services continued throughout the pandemic as well, via email, phone, and our "Ask a Librarian" online service. We have partially progressed through a phased return of in-person operations. In September 2020, a temporary on-site Electronic Resources Center (ERC) was established to provide by appointment service to allow researchers to utilize the wealth of e-content accessible only onsite. The ERC remained open for service through the end of May 2021. On June 1, we resumed on-site access to the Library's reading rooms with health and safety practices in place, leveraging appointments to allow social distancing and limit occupancy levels. Then, in July, we began welcoming public visitors to the Jefferson Building three days a week and recently increased service to four days a week (Wednesdays-Saturdays). Thus far, the Library has safely welcomed more than 2,700 unique researchers into its Reading Rooms and more than 30,000 visitors to the Thomas Jefferson Building. Other on-site functions will restart incrementally in phases and by building, subject to the health guidance in place at the time and local health conditions.

Moving Forward to Enhance the Visitor Experience

Work on the enhanced Visitor Experience in the Thomas Jefferson Building continued to move forward as well, despite some challenges posed by the pandemic. Elements of the Master Plan came to life through the design work for the spaces: a welcoming Orientation gallery, featuring Thomas Jefferson's Library – the heart of the Library of Congress - with an oculus view into the Main Reading Room; a Treasures Gallery to display the wonder and scope of our special collections; and a Youth Center to inspire learners of every age. The Youth Center will inspire learners of every age through engagement with Library Collections and prepare young people for the future by equipping them with civic and research skills. The work over the last year has been focused on design and content development for many spaces, and we're excited to be turning toward to fabrication and creation of many of these elements in the coming year.

Throughout this project, we have worked collaboratively with the Architect of the Capitol's team, including ensuring life and safety requirements are met.

To date, $30 million has been appropriated, and we anticipate receiving the final $10 million of Federal funding in fiscal year 2022. With the recent release of $10 million in FY21 funds, the Library will begin to fund the physical construction, fabrication and installation phases of the project. A robust private funding campaign has raised $14.7 million in cash and pledges as of this summer, reaching over 73% of our goal of $20 million. We thank David M. Rubenstein, our lead donor in this effort, for his support in helping us reach our goal.

Thanks to this generous funding of donors and the support of Congress, we will deliver an amazing experience for visitors, to broaden their understanding of the Library and its resources. This is your Library, your constituents' Library, a Library for the American people. We want to inspire them to learn, to create, to innovate, to become lifelong users of the largest Library in the world.

Modernizing Enterprise Information Technology

The Library continues to build on the work done in recent years to modernize its information technology operation. The Library has made tremendous progress over the last several years, and we thank the Committee for its strong support as we worked to stabilize, optimize, and now modernize our IT systems and processes. Keeping IT systems current is a process of continuous delivery and development, and I am committed to ensuring this is ingrained in the culture of the Library so that we never again fall behind.

Working very closely with the Government Accountability Office (GAO), the Library has addressed 98 percent of all public and non-public recommendations from 2015 reports on the agency's information technology, leaving only twoe that are not yet considered "closed as implemented." The final three recommendations require multi-year solutions to fully resolve, and the Library's technology professionals will continue to work with GAO to address them.

The Library successfully moved production IT systems out of the Madison Building at the end of FY20. The Library now has a hybrid hosting model in place that includes physical data centers, as well as internal and externally-hosted cloud solutions. We are already seeing the benefits of this new infrastructure with increased capacity and bandwidth supporting teleworking employees. It also means that the agency is better positioned to innovate moving forward. For example, this infrastructure is at the heart of the Enterprise Copyright System modernization and efforts to build out NLS's Braille and Audio Reading Download (BARD) system to support an increased user base.

We are committed to ensuring that Congress.gov fully meets congressional needs. As one of our major IT programs, we keep Congress.gov in continuous development, with new functionality added every three weeks based on user feedback. Significant site enhancements over the last year include the addition of the 'Century of Lawmaking' collection containing over 30,000 bills and

resolutions from some of the earliest congresses. We also added improved accessibility tools, a new citation tool, and improved email alerts for floor actions and committee activities.

While much work remains ahead of us, I am encouraged by the continuing progress made on IT modernization. The Office of the Chief Information Officer has made a necessary start in modernizing IT capabilities in support of more user-friendly customer experiences across the agency.

Cybersecurity

Cybersecurity threats to the Library and Legislative Branch data have escalated steadily over the last decade, with complex attacks regularly identified and prevented. As a confidential consultant to Congress, administrator of the national copyright system, and steward of the nation's cultural history, the Library of Congress takes its responsibility to ensure its IT security as a national priority. Like Congress, the Library is a target for increasingly advanced cyber threat actors. To stay ahead of the growing sophistication of the most advanced and persistent threats, the Library must be able to maintain and consistently mature a comprehensive suite of cybersecurity tools and training. Beginning in FY2017, the Library moved to centralize and enhance IT security protections, building on several factors such as industry best practices, government standards, and the recommendations made by GAO and the Library's Office of the Inspector General. The Office of the Chief Information Officer has implemented National Institute of Standards and Technology (NIST) security standards, multi-factor authentication for all employees, and enhanced protection for sensitive data including congressional information and Copyright e-deposits. In addition, the Library regularly participates in the Legislative Branch Cybersecurity Working Group, composed of representatives from all Legislative Branch agencies and staff representatives from the House and the Senate. The Working Group facilitates coordination and the inter-agency exchange of expertise in response to security threats. It is a vital resource for cybersecurity on Capitol Hill.

U.S. Copyright Office IT Modernization Update

Activities related to Copyright Office IT modernization have continued during the pandemic without interruption. We added to our public outreach by establishing a Copyright Public Modernization Committee, which met for the first time in July.

The Enterprise Copyright System (ECS), which is being developed in partnership by the Copyright Office and the Library's Office of the Chief Information Officer, includes four major components. Beginning in FY2019, Congress generously committed to providing $60 million over five years to design and implement three components of the new enterprise IT system –registration, recordation, and public records. Initial work on licensing, the fourth component, is also underway.

Users of the Copyright Office deserve a modern, efficient copyright system that is easy to use. To date, our progress on building such a system includes the release of pilots for the recordation and public records systems; both are receiving positive feedback and are being further refined. In April

2020, we released a limited public pilot for the new recordation system which, for the first time, allows users to record documents related to copyright ownership using a digital platform rather than the current paper-based system. The Copyright Office has processed over 3,700 Basic Section 205 recordation filings as of September 28, 2021, from the first eight waves of pilot users. Based on this experience, online recordation will bring processing times down substantially. The new public records system allows the public to efficiently search for information for both registration and recordation data, provides enhanced search capabilities, and affords improved interfaces for both external public users and Office staff to use. A pilot version has been available to the public since December 2020, with additional updates issued in August 2021.

Progress to date also includes testing and development for the registration application, a key component of the ECS. The next-generation registration system will facilitate and automate the copyright registration process beyond what is possible in the existing electronic Copyright (eCO) system. Recent milestones include user testing for a limited clickable prototype of the standard application for registration.

Modernizing CRS Technology

The Congressional Research Service (CRS) serves Congress with the highest quality research and consultation to support the exercise of its legislative, representational, and oversight duties. The work of CRS is authoritative, confidential, objective, nonpartisan, and timely. It examines pressing legislative issues facing Congress and provides analysis to support Congress throughout the legislative process across the full range of public policy issues. In FY2020, the CRS website for Congress (CRS.gov) drew more than one million views, including nearly 382,000 views of the service's reports and general distribution products.

Technology enables the many services CRS provides Congress. For its modernization efforts, CRS is working closely with the Office of the Chief Information Officer to modernize its internal IT and client services system. The new Integrated Research Information System (IRIS) will leverage the latest advances in web-based technologies to upgrade the systems CRS uses to respond to Congress. We look forward to moving the IRIS project along as an ongoing multi-year project that will continue to be a top Library priority in the new fiscal year.

Projects Underway to Support Law Library Service to Congress and the Public

CRS and the Law Library often collaborate on providing service to Congress. Annually, the Law Library team provides over 400 in-depth, complex research reports for Congress and over 1,500 reference responses to Members, Committees, and staff. Recognizing that Congress and the American people increasingly using electronic resources, the Law Library has made digitization a modernization priority. Volumes of the U.S. Statutes at Large from the 1st – 81st Congresses (1789-1951) are fully accessible as a digital collection on LOC.gov. This fall, volumes for the 82nd – 92nd Congresses (1952 – 1972) will be added to Congress.gov. Individual laws for the 93rd – 103rd Congresses (1973-1994) have been integrated and made available in Congress.gov with additional phases to follow with a projected completion in 2022.

The Library's support to Congress will also be served by physical modernization in the Law Library, which in this case means new compact shelving for a vast collection of international, foreign, domestic, and comparative legal resources. The new shelving will not only replace physical library infrastructure at the end of its life; it will improve user access to an extensive collection that spans 75,000 square feet, or the equivalent of 1.5 football fields. The current obsolete shelving system must be replaced to address personnel safety, access, and storage. The Library has been working to upgrade Law Library compact shelving since Congress first funded the initiative in FY2017. Given the size of the Law Library collection, the replacement of the existing shelving will occur in quadrants (Quads A through D). The Quad A replacement is already complete. Quad C, the largest portion of the collection, is in its final phases, and the two remaining smaller quads are scheduled to be replaced in the coming years.

A 21st Century National Library Service for the Blind and Print Disabled

Program Expansion and Modernization

This year the National Library Service for the Blind and Print Disabled (NLS) celebrates 90 years of providing free braille and talking books to people who cannot read regular print due to visual impairments and other disabilities. In 2019, Congress formally expanded its universe of eligible users to include individuals with perceptual or reading disabilities.[2] This expansion is expected to grow NLS' patron base over the next several years. In anticipation of this growth and as a part of a long-term plan to transform NLS into a more digitally-enabled service, NLS is modernizing to meet 21st Century customer needs. While NLS always has and always will provide hard copy braille materials, the Library's technology office has played a key role in making downloadable digital products more accessible online. The Library has more than tripled the capacity of the NLS Braille and Audio Reading Download (BARD) system by moving it to the cloud. Patrons downloaded about 4.6 million books and magazines from BARD in FY2020.

NLS has also developed a multi-year plan to pilot braille eReaders. Currently, NLS is moving ahead with research and pilot programs to finalize the optimal eReader option. In FY2021, several thousand devices were tested by network libraries and patrons. We thank this Committee for its ongoing support of this program.

A New Headquarters for the National Library Service for the Blind and Print Disabled

Working with Congress and the Architect of the Capitol, the Library is exploring possibilities for relocating the NLS headquarters closer to the main Capitol Hill campus. NLS currently occupies a General Services Administration (GSA) leased facility in Northwest Washington, D.C. The

[2] See the LOC Technical Corrections Act that passed as a part of the FY2020 Further Consolidated Appropriations Act (P.L. 116-94), conforming NLS eligibility definitions with the Marrakesh Treaty Implementation Act (P.L. 115-261) of the prior Congress.

building needs renovations even though the government recently invested in required health and safety improvements.

Relocating NLS near the main Library campus would drastically improve synergies with other programs and infrastructure. The current headquarters is an approximate 30-minute drive from Capitol Hill. This can present a challenge for visitors or staff who are visually impaired, as well as impact the efficiency of coordinated IT activities between locations. In fact, the current location is particularly unsuited to NLS' 21st Century transformation. In the coming years, NLS will be expanding both its user base and patron outreach and looks forward to being able to engage with the user community in a patron-centric facility developed to support a low vision population. Being closer to the main campus will allow more operational coordination with the rest of the Library, eliminate duplicative support services, and encourage the use of even more shared services where possible.

Library Services Activities and Modernization

The Library Services service unit maintains the Library's unique and enduring collection. Activities include building the national collection, providing strong stewardship and preservation, creating and managing metadata to provide access to the collections, and sharing the national collection with a wide range of users. The Library took 6.8 million preservation actions in FY2020 to keep the Library's high-value, high-use, and at-risk items user accessible, and in FY2021, has continued to process millions of special collections items, such as manuscripts and photographs, reducing the arrearage in those areas by more than 2 million items over two fiscal years.

Storage and Preservation

Library Services professionals take great pride in stewarding the national collection, attentively addressing its preservation and storage needs. After items are acquired, specific steps must be taken to manage and preserve them for the long term. This includes providing proper physical storage to expand the life of collections for many generations to come. The Library works closely with Congress and the Architect of the Capitol in building its collections storage portfolio, which currently includes permanent and temporary leased facilities. Our goal for several years has been to modernize storage and make more efficient use of congressional investments by vacating expensive, outdated General Services Administration leased space in Landover, Maryland in favor of permanent preservation storage modules at Fort Meade as well as less expensive, more desirable leased space in Cabin Branch, Maryland.

A significant physical modernization milestone was reached when the Library and the Copyright Office recently vacated all temporary leased storage in Landover. Thanks to investments from Congress, the Library is making steady progress transitioning to collections to Ft. Meade and Cabin Branch. Last November, we opened a new, modern copyright deposit storage facility at Cabin Branch. While the stacks on Capitol Hill provide daily access to many of our most requested items, an increasing number of items are being stored off site in high-tech, environmentally controlled facilities. Ft. Meade Module 5 opened in October 2017 and is now more than 95% full

with collections. Contractors completed the construction of Ft. Meade Module 6 this summer, and it is already receiving collections. The latest Ft. Meade project – Module 7 – is a critical turning point for the Library's physical storage goals. Once built, it will alleviate the current shortage of collection capacity on Capitol Hill and will allow the agency to focus more attention on collections care. Environmentally optimized storage underpins the Library's long-term collections storage strategy and is now the industry standard. Advanced temperature and climate controls stave off deterioration and the effects of age. These facilities store thousands of items in densely planned spaces, making for more efficient use of square footage than is achievable in traditional library shelving. They also keep materials safe and secure and provide enhanced inventory control technologies that help staff quickly find and serve requested items.

The Library's preservation strategy to phase out the legacy mass deacidification program is yet another example of modernization and resource optimization. Rebalancing spending in this area, as supported by Congress in FY2021, will allow for smarter investment in a preservation strategy that supports the Library's diverse, 21st century collections and applies limited preservation funding to the most pressing collections needs, including digital collections management.

Library Services Technology Modernization

Similar to other technology initiatives taking place in the Library, the Chief Information Officer is working with Library Services to replace one of its most critical legacy technology systems. A new Library Collections Access Platform (L-CAP) will seamlessly integrate and modernize systems used to acquire, inventory, and circulate collections, as well as manage metadata for web access. L-CAP will be at the core of Library operations for the next generation and will be kept viable as both demand and technology evolve. L-CAP will also provide better management capabilities for the exponential growth in Library digital content. The Library's digital holdings, including digitized collections, Copyright deposits, and "born-digital" acquisitions are doubling approximately every 18 months, requiring continuous updates to support changes to metadata, new formats, and access. The agency's desire to move forward with this project is reflected in the FY2022 budget request.

Modernizing Financial Management Services

In FY2020, the Library received its 25th consecutive clean (unmodified) financial audit opinion from an independent auditing firm. We strive to maintain this status, and with that in mind, have taken several actions in recent years to enhance and modernize the operations of the Financial Services Directorate, the division charged with coordinating all budgetary and financial activities for the Library of Congress. The Financial Services Directorate also provides shared services for eight Legislative Branch agencies via its hosting of the Legislative Branch Financial Management System (LBFMS).

In FY2019, Congress provided funding to support an increase in LBFMS hosting costs driven by growth in the number of users; supported the funding of an e-travel interface for more streamlined business travel processing; and provided for the reengineering of business processes to standardize

them across the Legislative Branch agencies, an activity which is underway. In FY 2021, the Financial Services Directorate developed an online financial management training program and integrated it into the LBFMS. In addition, the Directorate hired staff capacity and capability in program analysis, budget, and systems accounting to support its work. The Library's Inspector General has identified financial management and reporting as one of agency's top management challenges. Last fiscal year (FY2021), the Directorate prioritized activities to develop an Integrated Master Plan that pulls together information on all current and future initiatives to modernize the directorate. The Directorate has recently completed a project in partnership with the Office of the Chief Information Officer and the Library's Human Capital Directorate to develop a solution to capture internal labor costs on projects.

Building on efforts to modernize the Financial Services Directorate, we hope to move forward with a new initiative to establish an Enterprise Planning & Management (EPM) program for the Library. EPM will lead the Library's development of lifecycle cost estimation and cost accounting, including Technology Business Management (TBM) cost accounting. We believe EPM will help enable more effective planning and execution of resources over time. The great benefit of EPM is that it will create a standardized Library-wide framework for data-driven reporting, evaluation, and decision-making.

Conclusion

The Library is moving forward in substantial ways to modernize. We are excited about the progress that has been made, the work that remains to be done, and the promise of the future innovations enabled by these efforts. As always, the Library remains committed to providing excellent service to Congress as your Library. I thank you again for your continued interest and support for the Library of Congress, and for inviting me to update the Committee on several important topics.

Statement of
Shira Perlmutter
Register of Copyrights and Director, U.S. Copyright Office

Before the
Committee on Rules and Administration
U.S. Senate
October 20, 2021

Chairwoman Klobuchar, Ranking Member Blunt, and Members of the Committee:

Thank you for the opportunity to report on the recent accomplishments of the United States Copyright Office.

I will begin by summarizing our operations as they have continued during the pandemic, and then outline our current initiatives on information technology modernization and on setting up a new copyright small claims tribunal.

I. OVERVIEW OF OPERATIONS AND KEY SERVICES

Even during the unprecedented circumstances of the past year and a half, the Copyright Office has been able to adapt and provide high-quality services to the American public with minimal disruption. In fiscal 2020, we registered almost half a million copyright claims, recorded ownership information for titles of over 230,000 works, published comprehensive studies on several important policy issues, implemented key parts of the Music Modernization Act (MMA)[1] and the Copyright Alternatives in Small Claims (CASE) Act,[2] made progress in modernizing our services, managed over $1 billion in royalties, and responded to questions from almost 200,000 members of the public. This important work continued in fiscal 2021.

A. Copyright Office Staff

As of mid-September 2021, the Office had 443 staff on-board. This year, we have completed a total of 35 hiring actions, including backfills of vacant positions and hiring for the new Copyright Claims Board (CCB) established by the CASE Act.

[1] Orrin G. Hatch–Bob Goodlatte Music Modernization Act, Pub. L. No. 115-264, 132 Stat. 3676 (2018).
[2] Copyright Alternatives in Small Claims Act of 2020, Pub. L. No. 116-260 (2020).

B. Pandemic Operations

Over these past eighteen months, the Office successfully addressed significant operational challenges, primarily those posed by limits on on-site operations as a result of the global pandemic.[3] When the Library shut down the Madison Building on March 13, 2020, we transitioned 98% of the staff to full or partial telework within just a few weeks. Some of our work, however, involves physical materials (such as paper-based recordations of documents and paper-based registration claims, and physical deposits). Office staff was unable to process these materials until June 2020, when limited on-site work resumed.

In accordance with the Library's phased plan for restored on-site operations, the Office has steadily increased the number of staff working on-site at least part-time since last June. Currently, the Library is in Phase 3.2 of its restoration of operations plan; about 43% of Copyright Office staff is performing some level of on-site work, while others continue in full-time telework status.

The bulk of the Office's operations has been largely unaffected by this transition, including all legal and policy work, processing of fully electronic claims for registration, and ongoing modernization activities. Although processing of physical materials was suspended for several months after the Madison Building was closed, the Office has since restarted all physical materials processing workflows. To reduce the impact to the public, the Office issued a new rule that offers an electronic option for some services that previously required paper submission. The Office also adjusted practices to receive certain additional applications and submissions via email during pandemic operations.

To further relieve the impact of constraints imposed by the pandemic on users of Office services, the Acting Register had exercised, and I am currently exercising, the authority granted by Congress in the 2020 Coronavirus Aid, Relief, and Economic Security Act (CARES Act). We have temporarily adjusted certain timing provisions, and I continue to review conditions to determine whether further extensions are needed.

Finally, I am happy to report that we reopened our Copyright Public Information Office in early July of this year and are currently providing in-person services by appointment.

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[3] *See* U.S. COPYRIGHT OFFICE, ANNUAL REPORT FISCAL 2020 (2021), https://copyright.gov/reports/annual/2020/ar2020.pdf.

C. Registration, Recordation, and Acquisitions

The Office has made significant strides in improving registration processing times. Most registration applications – approximately 98% – come into the Office in electronic form.[4] During the pandemic, the Office has shortened processing times for fully-electronic applications (those electronic claims with uploaded digital deposits) to an average of 1.9 months.[5] The average overall processing time for examining all copyright claims was 3.1 months in the first half of fiscal 2021 – a substantial decrease from 4.0 months in the second half of fiscal 2019. Despite this overall reduction, the pandemic did negatively impact processing times for those few electronic applications that required the submission of physical deposits and for the small number of paper applications. More registration examiners are starting to come back on-site to handle these kinds of claims.

With respect to recordation, it is important to remember that the recordation system has historically been paper-based. Due to the pandemic slow down, recordation staff are currently processing basic recordation filings received on paper in March 2020 and Notice of Terminations (NOTs) received in June 2021.[6] Concurrently, the Office is continuing development of the new online recordation system. The positive impact of the pilot on processing times is impressive: the average time from submission to generation of the public record for electronic submissions is within weeks of receipt. To date, over 3,700 recordation filings have been processed through the pilot, from eight waves of pilot users. We are currently well ahead of our internal fiscal 2021 target to process 20% of these recordations electronically; for fiscal 2022, our target is 60%.

Limits on on-site operations impacted the Office's acquisition of physical materials for Library collections in the third and fourth quarters of fiscal 2020. The Office was able, however, to maintain an effective e-deposit program throughout the fiscal year. E-serial and e-book acquisitions made up a significant portion of our contributions to the Library's collections. For fiscal 2020, the estimated value of deposits, $40.03 million, was just shy of the previous year's total. The estimated value of the access that special relief relationships with major e-serial and e-book publishers provided for Library staff and patrons increased from $69.87 million in fiscal 2019 to $75.26 million in fiscal 2020.

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[4] In fiscal 2020, the Office registered 443,911 claims to copyright involving millions of works. Ninety-eight percent of registration applications closed were received electronically and two percent by mail. Fiscal 2021 data is not yet available.

[5] Registration processing times are posted at https://copyright.gov/registration/docs/processing-times-faqs.pdf.

[6] Recordation processing information is posted at https://copyright.gov/recordation/.

C. Legal and Policy Work

The Office has maintained our longstanding role in the area of copyright law and policy. In the past year and a half, this included promulgating regulations to implement the CASE Act and the MMA, as well as updating rules to establish new practices for group registrations, facilitate the deposit of electronic books for the Library's collections, and improve administration for recording notices of termination. The Office has issued several major policy reports during the pandemic and continued to provide expert assistance to Congress and across the government regarding complex and emerging copyright issues, including multiple legislative proposals and requests, Supreme Court and appellate litigation, and international matters.

D. Budgetary Matters

The Copyright Office performs all of this work on a relatively modest budget.[7] Separately, we are responsible for the effective stewardship of over $1.4 billion in statutory licensing revenues; for the fourth consecutive year, we received an unmodified or "clean" audit opinion of the statutory licensing fiduciary asset financial statements.

Budget Status: The Office appreciates Congress's support for our fiscal 2021 budget.[8] This included recurring support for the Office's modernization efforts, initially funded as part of the fiscal 2019 budget and continuing for five years through fiscal 2023. Congress also provided an additional $1.6 million in the fiscal 2021 budget, primarily for Office and Copyright Royalty Judges (CRJ) staffing to handle the MMA and other increasing workloads. To support implementation of the CASE Act, the Office is requesting $3.2 million in additional funding for fiscal 2022. In total, we request $98.0 million in funding and 472 FTEs, of which $45.0 million would be funded through offsetting collections of fees collected in fiscal 2022 and prior years. This would ensure the resources needed to continue progress

[7] The Copyright Office's overall budget is composed of three separate budgets or program areas: (1) the Basic Budget, which funds most of the Office's core operations, including the majority of payroll-related expenses; (2) the Licensing Budget, which is derived completely from licensing royalty collections otherwise payable to copyright owners and filing fees paid by cable and satellite licensees pursuant to statutory licenses administered by the Office; and (3) the Copyright Royalty Judges (CRJ) Budget, for which we provide budget formulation and execution support on behalf of the Library (although the CRJ program is not itself a part of the Office).

[8] The fiscal 2021 enacted budget totals $93.416 million, and consists of the following three elements: $84.317 million for Copyright Basic; $6.232 million for Licensing; and $2.867 million for the Copyright Royalty Judges.

towards accomplishing our strategic goals, which include providing legal and policy advice and modernizing our information technology.

More Flexible Fee Authority: As we have noted previously, the Office's operations would benefit significantly from greater flexibility in the use of fee collections, in particular the authority to use existing fee balances to provide services to the public in the event of a lapse in appropriations. Flexibility in management of fee balances across budget cycles also would provide for more efficient and cost-effective administration of large, non-recurring projects related to modernization and other capital expenditures. To that end, the Office has requested two changes in appropriations language: (1) to allow the Office to access existing fee balances to continue operations during a lapse in appropriations, and (2) to make 20% of the balance of fees collected in prior years available each year, in addition to appropriated amounts, for obligation without fiscal year limitation.

E. Outreach and Education

The Office remains dedicated to a robust outreach and education program. Our outreach work in fiscal 2021 continued to be very active. With virtual engagement having taken on increased importance, the Office is committed to a vibrant social media presence and both virtual and in-person outreach in a post-pandemic world. For example, the Office celebrated our 150th anniversary with several public events, including an examination of advancing inclusion in copyright, paired with a celebration of the first woman Register of Copyrights, Barbara Ringer. We also hosted a reflection on the copyright legacy of Ruth Bader Ginsburg, and, to conclude our 150th year, produced a new exhibit called "Finding Yourself in Copyright," which can be viewed both online and in-person at the Copyright Office. We have provided public webinars on modernization and new registration options. In fiscal 2020 alone, we fielded almost 200,000 public inquiries and increased our social media presence through 54 educational YouTube videos, 31 blog posts, and 633 tweets.

II. MODERNIZATION ACTIVITIES

The Office has made significant progress on the initiative to modernize our services, all of which is detailed on our modernization webpage. On IT matters, the Office works closely with the Library of Congress's Office of the Chief Information Officer (OCIO) to provide the business information needed for OCIO to undertake system and software development.[9]

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[9] *See* https://www.copyright.gov/copyright-modernization/. As the Library of Congress uses a centralized IT model, the Office relies on OCIO for technical services, including system and software

A. Enterprise Copyright System

The planned Enterprise Copyright System (ECS) currently includes work-streams on recordation, public records, registration, and licensing. In addition, OCIO is leading work on user experience design and platform services—the design and architecture capabilities underpinning the ECS. In fiscal 2020, the Office achieved major milestones on three of the work-streams: the launch of an electronic recordation pilot, the release of a new interface for the Copyright Public Records System (CPRS), and the release of a clickable prototype of the planned new basic registration application.

Recordation: The Office met its spring 2020 target to launch the public pilot of the new electronic recordation system. The pilot initially was made available to a limited number of public users on April 27, 2020, enabling them to record documents related to copyright ownership under section 205 of title 17. We have already incorporated user feedback into four point releases and are making iterative improvements. In this continuous development phase, we are adding more functionality to the system as well as more waves of users.

Public Records: In late 2020, the Office released the pilot for the new CPRS, which will eventually replace the existing Copyright Office Online Public Catalog. The CPRS will provide an improved interface for public records, with advanced search functionality that far exceeds the current system. The Office has already incorporated bug fixes and user feedback in the first point release, and the process of point releases is expected to continue into the coming year.

Registration: The Office began moderated user testing on a limited clickable prototype for the registration standard application, from which we have gathered public feedback and incorporated improvements following the second round of user testing. We are also developing the internal side of the registration system.

Licensing: The Office is beginning development of user experience design and initial automated workflows for licensing processes, which currently utilize outdated systems. The Office anticipates that licensing modernization expenses can be accommodated within the licensing base budget, and development is being limited to minimize the costs for copyright owners. Development will focus on migrating the statement of account examination

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development. This past year the Library has been building on its agile software foundation and has implemented the Scaled Agile Framework (SAFe) to improve collaboration across projects, as well as a program-level view of the modernization work as a whole.

processes to ECS and migrating all royalty accounting processes onto the Library's financial system to eliminate duplicate processes.

Additional Developments: The Library of Congress has convened a Copyright Public Modernization Committee (CPMC) to enhance communication with external stakeholders about the technology-related aspects of the Office's modernization initiative.[10] The CPMC's thirteen members include stakeholders from the publishing, music, and photography sectors, libraries and archives, and other fields.[11] The first public meeting of the CPMC took place virtually on July 22, and the committee will continue to meet twice a year through 2024.

B. Modernizing Supporting IT Systems

The Copyright Office has made strides in the planned consolidation of physical materials from several geographically dispersed storage facilities into a single, modern facility. This collaborative construction project between the Library, the Office, and the Architect of the Capitol was completed ahead of schedule, and the Office moved into the new facility at Cabin Branch, Maryland, in November 2020. We are now working to bring all copyright materials stored in other locations to Cabin Branch to fully consolidate them. This facility will allow the Office to provide faster location services, better tracking, and improved security of the significant inventory of copyright deposits. We plan to procure a software management system to optimize warehouse operations and functionality, promoting timely and reliable services.

The Office has also engaged experts to conduct a gap analysis and facilitate roadmap planning for a new contact center for our Public Information Office. We have now received recommendations to improve analytics, with the goal of implementing a high-performing, multi-channel contact center to support the copyright community and improve communications with the public.

C. Historical Public Records

As part of the Copyright Office's commitment to the preservation of and access to its historical records, a comprehensive effort is underway to digitize print and microfilm records and make them available online. This includes the card catalog, record books, and the Catalog of Copyright Entries (CCEs). Digitization is the critical first step, to be followed by

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[10] Library of Congress, Announcement of Copyright Public Modernization Committee, 86 Fed. Reg. 8044 (Feb. 3, 2021), https://www.govinfo.gov/content/pkg/FR-2021-02-03/pdf/2021-02194.pdf.
[11] *See* NewsNet, U.S. Copyright Office, Library of Congress Announces Copyright Public Modernization Committee (Jun. 22, 2021), https://www.copyright.gov/newsnet/2021/898.html.

the perfection of metadata to enhance searchability; a long-term goal is to have all of these items digitized and made available through the Copyright Public Records System. The Office has already digitized our card catalog; the Virtual Card Catalog (VCC) is available online.[12] As for the record books, the Office has awarded a contract for their digitization and is working with the Library's experts in digital collections management to ensure that it will incorporate best practices, with the resulting records made available for public, online viewing. The CCEs are already available online.[13]

III. IMPLEMENTING THE CASE ACT

When Congress passed the CASE Act last December, it required the Office to establish the Copyright Claims Board (CCB) to resolve disputes regarding copyright claims that have relatively low economic damages.[14] Located within the Office, the CCB will be a voluntary, alternative forum to federal court staffed by copyright experts, which will use streamlined, affordable procedures. When operational, the CCB will be the first intellectual property small claims tribunal in the United States.

The Office is working intensively to set up this groundbreaking system. First, we have begun regulatory activity to address the CASE Act's requirements. Following informal and formal consultations with a broad range of stakeholders, the Office issued a final rule on August 18 enabling expedited registration for claims pending before the CCB and updating the Office's Freedom of Information Act (FOIA) regulations as they apply to CCB proceedings. The Office has also proposed procedures for libraries and archives to preemptively opt out of CCB proceedings, as well as rules related to federal class action proceedings. Comments on these two proposals were due on October 4. In addition, on September 29, the Office issued a proposed rule to establish procedures governing the initial stages of a proceeding before the CCB; initial comments are due on October 29.

Second, the Office has nearly completed all hiring for the CCB. All three Copyright Claims Officers[15] have now begun work, as well as the Board's supervisory attorney, and we

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[12] *See* https://copyright.gov/vcc/.

[13] Over a decade ago, the CCEs were digitized by a third party using optical character recognition. Another party is embarking on a project to build on the OCR data to improve the data set quality.

[14] Copyright Alternatives in Small Claims Act, 17 U.S.C. § 1502 (2020). The CASE Act was adopted following the Copyright Office's 2013 study on small copyright claims and includes much of the Office's suggested statutory language. U.S. COPYRIGHT OFFICE, COPYRIGHT SMALL CLAIMS (2013), https://www.copyright.gov/docs/smallclaims/usco-smallcopyrightclaims.pdf.

[15] *See* NewsNet, U.S. Copyright Office, Copyright Office Announces Appointments of Copyright Claims Board Officers (Jul. 20, 2021), https://www.copyright.gov/newsnet/2021/906.html.

are in the process of hiring the rest of the support staff.[16] In parallel, we are collaborating with other Library units to put in place a case management system, virtual hearing capabilities, office space, and other needs so that the CCB can begin to operate within the statutorily required timeframe.

Finally, and equally importantly, the Office appreciates the need to produce and make accessible to members of the public information about the CCB's operations. To that end, the Office has launched an educational webpage that provides key facts about the tribunal, including dozens of FAQs and links to additional resources such as legislative history and rulemaking activity. The Office will regularly update this site to keep the public informed of the CCB's progress.

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In conclusion, I appreciate this Committee's continued support of the Office and the Library's operations, including our IT modernization initiative. I also want to thank the Office's dedicated staff for their service to the copyright community and the public, especially during the pandemic.

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[16] In support of these stand-up activities, the Office's fiscal 2022 budget includes a program increase request of $3.2 million and 8 full time employees (FTEs). This amount is made up of $1.0 million in one-time costs for office construction and furniture, audiovisual system acquisition, and development of an online case management system, as well as $2.2 million in recurring costs for the 8 FTEs ($1.7 million for salary, benefits, and related costs and $500,000 for systems operation and maintenance, printing, and other services). *Library of Congress FY 2022 Budget Hearing Before the Subcomm. on the Legislative Branch of the H. Comm. on Appropriations*, 117th Cong. 5–7 (Mar. 3, 2021) (written statement of Shira Perlmutter, Register of Copyrights and Director, U.S. Copyright Office), https://www.copyright.gov/about/budget/2022/house-budget-testimony-fy22.pdf.

Statement of Mary B. Mazanec
Director, Congressional Research Service
Before the
Committee on Rules and Administration
U.S. Senate
October 20, 2021

Chairwoman Klobuchar, Ranking Member Blunt and Members of the Committee,

Thank you for the opportunity to present testimony today on behalf of the Congressional Research Service (CRS). CRS values its role as Congress's trusted resource and is committed to providing exceptional information, research, and analytical service to every Member and committee. With today's testimony, I will highlight some of the more noteworthy support the Service has provided to Congress during this challenging and unprecedented period and update the Committee with respect to a number of important initiatives that CRS has undertaken.

SERVICE TO CONGRESS

Despite the enormous disruption caused by the global pandemic, I am pleased to report that CRS continues to successfully carry out its mission to provide Congress "the highest quality of research, analysis, information, and confidential consultation, to support the exercise of its legislative, representational, and oversight duties." Of course, this would not be possible but-for the incredible resilience and dedication of CRS staff and I would like to thank my colleagues for their hard work in fulfilling this important responsibility.

In March of 2020, as news of the impending pandemic grew increasingly dire, CRS worked quickly to ensure that it would continue to support Congress's needs during any prolonged pandemic event. Within 24 hours, the Service transitioned its entire operation, expanding existing workplace flexibilities to enable staff to work remotely full-time. As a result, CRS was well-positioned to provide Congress with timely analysis, information, and consultative support as it considered the plethora of issues presented by this public health crisis. From March 2020 through August 2021, CRS prepared and regularly updated over 1100 new products on COVID-19-related issues. To enable expedited access to these products, a COVID-19 resource page was developed on the CRS.gov and Congress.gov websites, organizing CRS prepared material under

26 issue areas, covering topics ranging from the temporary moratorium on evictions provided under the Coronavirus Aid, Relief, and Economic Security (CARES) Act to frequently asked questions regarding testing for COVID-19. Several of these products incorporated custom CRS graphics, for which CRS leveraged visual design tools and technology. In addition, CRS experts responded to over 10,000 inquiries on COVID-related subjects.

In addition to COVID-19 related issues, CRS has recently assisted Congress in its consideration of many other policy and legal questions. CRS experts have provided extensive research and analytical support on issues including border security; climate change; cybersecurity; federal disaster relief and emergency management; US-China trade relations; tax policy; immigration; and the U.S. military presence in Afghanistan. In addition, analysts and attorneys provided guidance on the legislative process, congressional oversight, and the annual appropriations bills, and supported the Senate's consideration of judicial and executive branch nominations. CRS also continued its offering of seminars and programs for congressional staff, including sessions on Understanding Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI); Law Enforcement Use of Facial Recognition Technology; the Federal Law Update series; and numerous programs addressing military and defense-related issues. Due to the pandemic, the Service quickly transitioned its in-person programs and seminars to webinar format.

During fiscal year 2020, CRS experts responded to over 75,000 congressional requests; prepared over 1300 new products; updated over 2500 existing products; and conducted live and virtual seminars that were attended by approximately 8500 congressional staff. As in previous years, the Service provided support to almost every Member and committee office through the provision of its products and services.

CHALLENGES, OPPORTUNITIES AND STRATEGIC INITIATIVES

Today's Congress is confronted with an ever-increasing workload of complex public policy issues, during a time of constrained budgets and resources. In addition, technological innovations have afforded Congress immediate access to vast amounts of information from a multitude of sources, not all of which are authoritative or without bias. This has created and elevated expectations on the part of congressional users that the information and analysis that they require from CRS will be readily available and accessible whenever and wherever they wish

to retrieve it. As a result, CRS constantly examines its work model and explores areas where it can optimize its support to Congress. The following is a summary of the Service's progress in advancing some of the key initiatives undertaken to achieve this objective.

Survey of Congressional Staff

CRS is constantly capturing feedback from congressional stakeholders to assess the Service's progress in meeting the needs of Congress. Most recently, in fiscal 2020, CRS contracted with Gallup, Inc., to conduct a survey of congressional staff designed to gauge the value and utility of various research products and consultative services offered by CRS, as well as to gather information about how such products and services are used by Congress. Gallup contacted over 13,700 congressional staff from early February through mid-March 2020 and received survey responses from over 1300 district, state, and DC-based staff members. The feedback was overwhelmingly positive and CRS is assessing the information gathered from this and other outreach efforts to inform strategic and operational decision making and improvements to its product and service offerings.

Data Collection and Analytics

The Service has developed tools to assess the use of CRS products and services and to provide insights on congressional interests. A major area of data collection has involved understanding CRS.gov usage by congressional users. These efforts include the capture and analysis of search terms utilized on CRS.gov and use analysis of general pages on the site, topic pages, and CRS products.

Beyond assessment of website use, CRS has developed prototype data analytic tools to reflect the scope and depth of CRS service to Congress. These tools have been used by CRS management to anticipate and evaluate work demands, understand the range of clients receiving consultative services, and help ensure that CRS reaches all Members and committees. CRS continues to explore new data available from congressional and public use of CRS products, websites, and services.

Improving Recruitment and Retention of a Diverse Workforce

A dedicated, diverse, professional CRS workforce is essential to meet the needs of a 21st century Congress. To this end, CRS continues to recruit, retain, and professionally develop a diverse, highly skilled staff with the required expertise to address the myriad issues facing Congress. For example, the Service has expanded its capacity in science and technology, creating 12 additional positions in multiple divisions to strengthen and deepen analysis of multidisciplinary policy topics where science and technology issues have a substantive component. Recognizing that Congress serves an increasingly diverse constituency, CRS has developed and begun to execute a recruitment plan for merit selection positions that intensifies outreach to potential applicants from underrepresented groups. During fiscal year 2021, CRS participated in 42 recruitment events, many of which were sponsored by minority-serving institutions and schools or organizations with a focus on underrepresented groups.

With regard to professional development, CRS provides training on writing and core presentation skills. In addition, the Service has hosted a number of learning sessions for staff, aimed at fostering a more inclusive and respectful workplace, including: "Connecting with Respect;" "Microaggressions in Everyday Life;" "Anti-Harassment Training;" and "Embracing Allyship." Additionally, CRS staff participate in the Library's Career and Leadership Development Programs, as well as the Library's Supervisory Development Program.

Knowledge Management

Capturing and preserving CRS's institutional knowledge is an important component of the Service's ability to provide exceptional service to Congress. Thus, CRS is developing and implementing strategies to manage, preserve, and capture this valuable asset for use by current and future CRS staff. The Service utilizes its Research Portal as a hub for digital resources, to provide staff with quick and easy access to information needed to research, analyze, and advise on legislative issues. The Research Portal has been particularly useful during the COVID-19 pandemic, while most CRS staff have been working from home. In addition, CRS is engaging in efforts to ensure the capture and timely transfer of the tacit knowledge held by senior analysts, attorneys, and information professionals. Activities to facilitate the sharing of information, knowledge, and best practices have enabled new staff to learn from the experience of their

colleagues. In fiscal 2021, CRS established a Knowledge Management Advisory Group to work closely with the research divisions and offices on knowledge management and to develop plans for the preservation of tacit knowledge.

IT Modernization/Integrated Research and Information Systems (IRIS)

The pandemic experience underscores how critical information technology is for the Service to accomplish its mission. CRS continues to work with the Library's Office of the Chief Information Officer (OCIO) to modernize its IT infrastructure with the deployment of new tools and software to enhance support to congressional stakeholders. The Integrated Research and Information System (IRIS) initiative is a multi-year effort to update the Service's mission-specific information technology to provide CRS staff with the best resources to create and deliver products and services to Congress. CRS and OCIO are currently implementing several major work streams. These efforts include updating the client relationship management and workforce information management systems, improving the text analysis program to provide greater ease of conducting legislative analysis and comparisons, streamlining the content management system, and enhancing the taxonomy tool for better search results. These improvements are in varying stages of development and implementation.

Congress.gov

With its ongoing development cycle for Congress.gov, CRS puts the highest priority on supporting the information needs of Congress. CRS and the Library actively engage the Secretary of the Senate and Senate Sergeant at Arms data partners to modernize processes used to exchange data for Congress.gov. These modernization efforts will better safeguard congressional data by retiring less secure legacy data processing workflows, and establish the foundation for future enhancements. In August, the Library's Congressional Relations Office shared with the Committee a brief video demonstrating significant improvements in Congress.gov that were inspired by congressional staff feedback.

CONCLUSION

CRS is honored to serve as a trusted and reliable resource for Congress during this difficult period in our nation's history. The accomplishments outlined above are a testament to CRS's

commitment to support Congress with timely, authoritative research, analysis, and information, notwithstanding the challenges that we now face. On behalf of my colleagues at CRS, I would like to express my appreciation to the Committee for your continued support.

Statement of Jason Broughton
Director, National Library Service for the Blind and Print Disabled (NLS)

Before the
Committee on Rules and Administration
United States Senate

"Oversight of Library of Congress Modernization Efforts"

October 20, 2021

Chairwoman Klobuchar, Ranking Member Blunt, and Members of the Committee, it is an honor to appear before you representing the National Library Service for the Blind and Print Disabled, or NLS, and the Library of Congress. I want to thank you for this wonderful opportunity to join you today.

You in Congress have played a key role in NLS's creation, history, and recent successes, so I am especially excited about our continued work together. I thank you as well for your respective March remarks in the *Congressional Record* commemorating our 90th anniversary. Your support is essential to our service and to our success.

After the Pratt-Smoot Act became law on March 3, 1931, the Library of Congress's book program for blind Americans began four months later. Throughout nine subsequent decades of service, NLS has continued to innovate and adapt to meet the reading needs of blind and print disabled Americans across the nation and overseas.[1] Encompassing an institutional history that traverses phonographic records, cassette players and tapes, digital talking book machines and USB flash memory cartridges, large-print and musical works, and the Internet, all the while continuing to supply hardcopy braille materials, NLS is more than well-positioned for an exciting future.

As only the third Director of NLS in the last 48 years, I am honored and humbled to lead such an incredible team with such an extraordinary mission. Drawing from my life and career-shaping experiences in numerous states, most recently as the state

[1] NLS's mission is "[t]o provide books, magazines, musical scores, foreign language, locally produced materials and texts in braille and recorded formats to blind and print disabled individuals in the United States & U.S. citizens living abroad." Its Vision Statement is *That All May Read.*

librarian for the great state of Vermont, I am excited about NLS's unique mandate, mission, and capacity to serve blind and print disabled Americans.

My background has allowed me to serve Americans as an educator, as one devoted to workforce development, and as one gathering and sharing information and knowledge, the lifeblood and vital nutrients of democracy and representative government, available and accessible to citizens of all backgrounds, ages and walks of life.

This diverse background has empowered me with the experience to serve you and the Library as NLS Director by being attuned to what state entities and Americans need and should expect from a federal entity, by knowing the rich ability state-level entities have to serve citizens and patrons in those states and localities, and by being knowledgeable about what libraries and library-based services can offer their patrons.

NLS is not a small part of the Library of Congress with an obscure headquarters located in Washington, D.C. It is a rich tapestry of libraries spanning this great nation and all its territories. Currently comprised of 98 entities – regional libraries, sub-regional libraries, machine lending agencies, advisory and outreach centers, and multistate centers – NLS has been serving the Library, Congress, and the American people for now over ninety years. Building on previous efforts to serve America's blind individuals, as well as our service members in World War I, NLS was born thanks to the foresight of Congress. Even during the turmoil and uncertainty of the Great Depression, Members such as Rep. Ruth Pratt and Sen. Reed Smoot saw fit to put a national service for the nation's blind in the Library of Congress.

A national service still thriving and ready to serve.

Current Highlights of NLS Service

Despite the extreme challenges of COVID-19, NLS continued and continues to serve its hundreds of thousands of patrons via its 98 partnering library entities. During Fiscal Year 2020, NLS circulated 20,278,288 books, magazines, and music collection items to its nationwide network of libraries and collaborative partners (i.e., 4,406,337 audio downloads; 13,835,174 digital cartridge; 233,771 ebraille downloads; 190,088 hardcopy braille; 1,612,918 large-print items). During this fiscal year, to date, NLS has produced 4,452 books now added to its collection (i.e., audiobooks, ebraille, and print braille; as compared to 3,786 in fiscal 2020 and 4,637 in fiscal 2019). NLS Braille Audio and Reading Download interface now contains

an astonishing 147,273 total items (i.e., books available in audio; books available in e-braille; magazine issues; music collection items) and over 7,900 items were added to BARD just this year. NLS has over 310,807 items in its collection overall.

Congress's support has been indispensable to this success. From increasing our base funding each year, to supporting our additional funding requests for our IT modernization work and eReader development, to updating our statutory authorization to meet current needs, you have supported us and we thank you.

Your funding support for our IT modernization work has allowed NLS and its partners in the Office of the Chief Information Officer (OCIO) to move our Braille and Audio Reading Download (BARD) to the cloud, thereby dramatically and exponentially increasing download speeds for audiobooks and allowing for ongoing development work to continue that will make BARD and the platforms upon which it resides more agile, user-friendly, secure, and equipped to handle our patron bases of the future.

In addition, building upon your work in 2016, which became Public Law 114-219, NLS is continuing to increase its eReader capabilities in service of our braille-reading patrons. We now have thousands of eReaders deployed to our libraries in the hands of patrons. As one patron has expressed:

> I just started beta testing the eReader a week ago. This morning I did something I never dreamed I would have the ability to do in my lifetime: I sat down with a cup of coffee and my local newspaper, and I physically read it. No one read it to me via audio format; I didn't have to scan it first; I actually read the words for myself, relishing in the unusual spellings (Travis Kelce—k-e-l-c-e—who knew??? Go, Chiefs!) Thank you, NLS and Humanware, for opening a door to a level of dignity I never fathomed could ever exist. I just couldn't believe I was physically reading the newspaper, in Braille. And—the next sighted person who says there's "nothing" in the newspaper is likely to get an earful from me. Any newspaper you can physically read for yourself, has something worth reading within its pages.

Likewise, as part of the Further Consolidated Appropriations Act of 2020, you passed the Library of Congress Technical Corrections Act of 2019. This vital legislation allowed NLS to update its name, conform its terms of eligibility to the

Marrakesh Treaty, and empowered NLS to participate in international exchanges as part of that Treaty.

Our stakeholders and network were very pleased with the long overdue name change to more accurately describe and promote our service. Our updated regulations made reality a decades long sought after change to our certifying authority requirements. Moreover, the results of our Marrakesh Treaty implementation work have been tremendous. NLS is helping the United States be a leading international partner in the spirit and letter of Marrakesh. To date, NLS now has over 1,270 Marrakesh-based works in eight languages on BARD, has over 101,000 works now available on the World Intellectual Property Organization's Accessible Books Consortium's Global Book Service for other Marrakesh Authorized Entities (AEs) to consume, and can report glowing feedback from its network and international partners in terms of NLS's ability to use Marrakesh as it was intended, to serve blind and print disabled individuals with the content they want and to alleviate the book famine.

And that is not all. This year NLS continued to expand its Duplication-on-Demand (DoD) technology to 13 more network libraries (equaling a total of 53), whereby these libraries can receive content electronically, avoid stockpiling physical inventories, and fulfill individual requests from patrons more quickly with content-customized cartridges containing one or multiple audio files.

Over the last two years, NLS has executed NLS's first reorganization in over 40 years, which, among many structural realignments, established a new Modernization Program Office under the Deputy Director, as well as established a new Patron and Network Engagement Division.

As mentioned, after soliciting feedback from network and related stakeholders toward updating NLS's certifying authorities, as well as completing a dual-state pilot of reading disabled individuals, NLS, with your assistance, was able to update NLS's regulatory language and certifying authorities to ease access for reading disabled individuals, resulting already in a 35% increase in reading disabled individuals served.

NLS continues to research, investigate, and pilot next generation devices (i.e., eReaders, smart phones, smart speakers with voice user interface capabilities, and a digital talking book player with enhanced Wi-Fi and cellular connectivity) to prepare for continued delivery development, research, and eventual device selection(s) for patron introduction.

As well, NLS continued its multiyear, multimedia advertising/outreach campaign that focused on digital outreach during this fiscal year. The campaign received excellent feedback from network libraries and resulted in notable engagement with potential patrons, their friends, family, and caretakers, including 21,367,820 impressions, 167,260 campaign web site visits, and 9,026 requests for information. NLS also launched a separate digital campaign in Fiscal Year 2021, aimed at engaging professionals who work with NLS stakeholders, including ophthalmologists and occupational therapists. This campaign resulted in 35,322,969 impressions and 26,658 visits to the campaign page.

Finally, NLS continues to seek collaborative opportunities both within the Library and with similarly situated entities through partnerships with the Veterans Administration and through events like the NLS-sponsored November 2019 concert event in the Coolidge Auditorium featuring the *José André Trio* and the March 2020 virtual concert event featuring jazz pianist Matthew Whitaker.

In Closing

In closing, this is an incredibly challenging and exciting time in NLS's history.

NLS met and will continue to meet the challenge of COVID. NLS will continue to work to build a new suite of services for patrons with a holistic approach to content that provides even more value to the reader (i.e., supplementary and tactile material often discarded for text-only braille or audio recordings). With a continued focus on understanding and reaching current and potential patrons (i.e., a continued digital campaign, as well as a new public-facing website to reach potential patrons), NLS will be reaching out to blind and print disabled audiences of all ages and all backgrounds so *That All May Read.*

Members of the Committee, during the 1931 congressional debate over what came to be NLS, it was described as "a noble purpose." One Member stated: "The main object . . . is to provide suitable books and get them out among the blind according to some well-regulated system, and I do not know any agency better designed to accomplish this end than the great national library known as the Library of Congress, which is directly responsible and accountable to Congress[.]"

During committee debate, Helen Keller had testified: "Books are the eyes of the blind. They reveal to us the glories of the light-filled world. They keep us in touch with what people are thinking and doing. They help us to forget our limitations. With our hands plunged into an interesting book we feel independent and happy."

Members of the Committee, NLS remains a noble purpose. And books remain the eyes of the blind and the glories of the light-filled world.

As the new Director of NLS, I commit to you my dedication to continue NLS's shining legacy, to serve more patrons, and to steward and shepherd NLS into its next 90 years.

I am happy to answer any questions you may have.

Senate Committee on Rules and Administration
Oversight of Library of Congress Modernization Efforts
October 20, 2021
Questions for the Record
Dr. Carla Hayden

Chairwoman Klobuchar

During your tenure, the Library has made significant progress in implementing recommendations to improve its information technology systems made by the Government Accountability Office (GAO) and the Library's Office of Inspector General (OIG).

- **Can you tell us more about the Library's substantial progress in this area, and is the Library committed to continuing to implement outstanding GAO and OIG recommendations?**

Thank you. We appreciate the Committee's strong support as we have worked to stabilize, optimize and modernize technology at the Library. As part of that effort, we have been diligently working to address the recommendations raised by GAO and the OIG to improve IT at the Library. Their audits have given us insights that have helped us re-envision our technology strategy, improve our IT investment and management processes, and significantly strengthen our IT infrastructure and security.

To date, we have closed 105 out of 107 (98%) of the IT recommendations made by GAO in 2015. We have also closed over 350 IT audit recommendations made by OIG since 2015, which is 85% of the recommendations they have made for IT at the Library.

We have developed a strong working relationship with both GAO and OIG. We are coordinating closely with them to close the remaining IT recommendations; most of which are related to IT project management practices, like cost estimation and scheduling, particularly for large or complex projects.

The Library Office of the Chief Information Officer (OCIO) has been actively working to improve our IT cost estimating and budgeting processes since the GAO IT audit was completed in 2015; we created an enterprise IT Project Management Office in 2017 and we have made a lot of progress in a very short time. During GAO's most recent review of submitted evidence, the Library was deemed to have substantially or fully met nine of their twelve Cost Estimating guidelines, and to have shown improvement in the remaining three practice areas. OCIO is collaborating with the Library's Financial Services Directorate to continue to mature our capacity for detailed IT cost estimating and to fully meet GAO Cost Estimating guidelines.

OCIO has created a five-year PMO Execution Roadmap that outlines the activities the Library plans to accomplish to enhance our Project Management Office and continue

evolving higher-order IT program management at the Library. We will be providing OIG quarterly updates on our progress implementing the roadmap. OCIO is also establishing a Core Technology Implementation Plan, which will document the actions we are taking to continue to improve the Library's IT foundational infrastructure. Together, we expect the PMO Execution Roadmap and Core Technology Implementation plan will help us close the remaining GAO recommendations and address many of the issues raised by OIG in recent IT audits.

Senator Blunt

Adapting during the pandemic

- **With new features like its Engage! Webpage for students and its online "office hours" held online by academic specialists for teachers, the Library really rose to the challenge of serving the needs of the American people virtually during the pandemic. How is the Library ensuring that these impressive digital innovations are sustainable and continue to develop?**

The Library capitalized on the opportunity to expand its virtual offerings for the public throughout the pandemic with outstanding results. In FY20, the Library's web pages attracted 174.8 million visits, an increase of more than 50% compared to FY19; and engagement via social media channels up across the board, including an increase of viewership on the Library's YouTube channel of nearly 120% over FY19.

This pivot to virtual programming necessitated by the pandemic also supported the Library's ongoing strategic plan efforts to create a more digitally-enabled model that allows us to serve Americans beyond the four walls of the Library and in every state and territory.

For example, as we had to adapt our on-site research orientation sessions into Zoom-based seminars, we were able not only to continue this service uninterrupted through the pandemic closure, but also to open up these briefings to a new, wider and very appreciative audience of those unable to attend these orientation in person in Washington, DC.

Our events programming, most notably our series of concerts from the Music Division and our American Folklife Center, were quickly adapted to virtual events that premiered on Library social media channels and reached wide new audiences on YouTube and Facebook.

In addition, the experience gained during the production of two entirely virtual National Book Festival events in 2020 and 2021 gave us valuable insight into the strategies and tactics necessary to bring the author chats and informative presentations of this beloved event to a nationwide audience in a variety of formats -- live and recorded videos, social media, podcasts, broadcast, direct-email notifications, and programming partnerships

with key media outlets. These experiences using multiple formats to reach new and existing audiences will give us tools to continue broad national outreach efforts when we return to an in-person National Book Festival experience in 2022.

The pandemic presented an opportunity to test-drive different formats and approaches to digital programming. The metrics we were able to gather from these efforts are helping us understand the techniques and platforms that maximized engagement from audiences across the country. Moving forward, the Library is analyzing this data to develop best practices and ongoing programs that will continue to build on the remarkable progress we've made, even after returning to normal on-site operations.

On the technical side, we were able to make these digital innovations within the framework of our recently modernized IT infrastructure. In fact, our success in being able to refocus on virtual engagement was in large part possible because of the significant investment in time and resources that we have put into stabilizing, optimizing and modernizing Library technology. Our in-house IT team was able to partner with our amazing subject matter experts to quickly develop the wide range of new content for the public, and because those additions leverage our existing infrastructure, we will be able to sustain and continue to develop them moving forward.

- **Can you speak to how the modernization progress of the last several years helped the Library to seamlessly transition to a remote world at the start of the pandemic?**

The improvements we've made to Library technology over the last several years have been crucial to our ability to operate during the pandemic.

While not yet completed at the start of the pandemic, our data center transformation effort had already largely overhauled our IT infrastructure, which allowed us to effectively double available bandwidth and smoothly accommodate an 800% increase in telework nearly overnight. We went from an average of 500 teleworkers a day to more than 3,000 Library employees working remotely, and we have been able to sustain that for over eighteen months now.

Our IT centralization and modernization efforts also positioned us to adapt to the pandemic much more efficiently. Instead of managing technology across our separate Service Units, the Office of the Chief Information Officer (OCIO) was able to centrally coordinate the deployment of laptops and other IT hardware to support telework and ensure that equipment could be regularly maintained and updated without requiring onsite visits. That coordination allowed us to configure and issue over 1,600 new laptops to staff in under six months. Perhaps even more critically, our decision to modernize enterprise tools for online collaboration, including implementing Skype for Business, Webex, and ultimately Zoom for Government, has proven essential for Library operations during the pandemic. That technology has been the bridge that links us all every day and lets us work without needing to gather together.

Finally, our efforts to modernize and streamline the technology that supports our websites and ingest and delivery of Library content, as well as our experimentation with new technology, like crowdsourcing and machine learning, proved invaluable at the start of the pandemic. That work allowed us to rapidly develop new ways for the Library to virtually engage with Congress and the public, using existing templates and tools instead of having to start from scratch. It also ensured that we could seamlessly accommodate the surge in online engagement that resulted.

Of course, the pandemic has had an effect on our modernization efforts as well. Resources had to be reallocated to accommodate the swift transition to remote operations. Our multi-year plan to move Library staff from desktops to laptops was accelerated. Additional licenses were procured on short notice to allow the Library's Virtual Private Network (VPN) and other systems and applications to be used by the additional teleworking staff. And technical staff were required to focus valuable development time implementing new unplanned features under tight deadlines. Sustained remote operations has also surfaced several expensive new technology requirements, including our need to transition to a cloud-based workforce productivity suite that will better support work from anywhere and real-time virtual collaboration.

Modernization at the Library

- **The Library has made great strides in centralizing its information technology systems and investments across the Library's various service units since you joined the Library in 2016. What kind of benefits has the Library seen as a result?**

IT centralization has provided several significant benefits as we continue to transform how we manage and use technology at the Library. Having all of our IT activities under the umbrella of our CIO allows for a holistic view of our technology needs and helps ensure that efforts are appropriately coordinated, funded and supported by a strong technical foundation.

With centralization, we created a more robust IT governance program and established a Project Management Office. Together they provide better transparency and control for IT projects and a more strategic approach to ensure that technology meets the Library's mission needs.

We have consolidated our technical staff and realigned them by skillset instead of Service Unit. That organization allows us to treat our human capital as a strategic asset; ensuring that technical expertise is managed more efficiently and can be leveraged where it is needed across the Library. It also allows for more effective training and cross-support from others with related skills.

We are transitioning to enterprise technology solutions, which lets us be more strategic in our use of limited resources and reduces the need to support a wide range of technologies doing the same jobs. We are also standardizing and maturing the use of advanced software development practices, like Agile Development and DevSecOps, which allow more efficient work and a more consistent, repeatable process across our many systems

and applications.

Centralization has also been critical for our ability to implement and sustain a much more robust IT security posture. We professionalized and expanded our IT security staff and put all Library IT systems and applications under the authority of one Authorizing Official. We also implemented much more stringent IT security standards and ensured they are applied equally across the Library.

- **The Inspector General identified project management as a top management challenge in its March 2021 semiannual report, specifically project cost and schedule management practices. Can you tell us about the work the Library is doing to address this?**

  Maturing our project management practices has been a top priority for the Library since March 2015, when the GAO IT audit report identified project management concerns. We created an agency wide IT Project Management Office in 2017, and we have made good progress in a very short timeframe. But we know we have more to do and we are continuously working to mature our practices.

  In fiscal 2021, we developed a Project Management Office Execution Roadmap that lays out our path forward for maturing our IT project management through the end of fiscal 2026, with a special focus on cost and schedule management. We have also requested funding in our fiscal 2022 budget to stand-up a specialized team between our Financial Services Directorate and OCIO to better manage life-cycle cost estimating.

  We are actively collaborating with our OIG to refine the roadmap and ensure our practices align with appropriate government standards, including GAO guidance for cost estimation and agile assessment. During GAO's most recent assessment, the Library was deemed to have substantially or fully met nine of their twelve Cost Estimating guidelines, and to have shown improvement in the remaining three practice areas.

  I think it is important to note that the Library isn't alone in these issues. Technology development practices have evolved rapidly, and the federal government as a whole is working to better align management practices for the new way of doing business. GAO invited us to participate in their Agile Working Group, and we are actively working with them and other agencies to establish new government wide best practices for Agile development efforts.

- **Please provide an update on the Financial Services Directorate and the OCIO's work to draft a plan to address gaps in project cost and schedule management processes across the Library. What does the timing of that plan look like?**

  The Library Office of the Chief Information Officer (OCIO) has been actively working to improve our IT cost and schedule management processes since the GAO IT audit was completed in 2015. We created an enterprise IT Project Management Office (PMO) in 2017, and we have made a lot of progress in a very short time.

OCIO has created a five-year PMO Execution Roadmap (FY2021 – FY2026) that outlines the activities the Library plans to accomplish to enhance our Project Management Office and continue evolving higher-order IT program management at the Library. The plan lays out new practices PMO will implement over the next several years to more accurately model and monitor costs and IT project scheduling. In particular, the Roadmap incorporates best practices from the GAO to better estimate and share information about IT project costs with Library stakeholders.

During GAO's most recent review of submitted evidence, the Library was deemed to have substantially or fully met nine of their twelve Cost Estimating guidelines, and to have shown improvement in the remaining three practice areas. OCIO is collaborating with FSD to continue to mature our capacity for detailed IT cost estimating and to fully meet GAO Cost Estimating guidelines.

To establish a more holistic view of full program lifecycle costs across the Library and strengthen strategic planning, FSD is also exploring the creation of an Enterprise Planning and Management (EPM) program for the Library in collaboration with OCIO, the Library Collections and Services Group, the Strategic Planning and Performance Management Directorate and other Library stakeholders. A mature EPM program would provide a business-driven data governance practice that can identify agency-wide key data elements and allow Library business processes, systems and tools to be aligned across commonly used data. It would also provide increased visibility into the ongoing performance of investments, programs and projects by capturing and reporting plans, performance, and total lifecycle costs in a consistent manner, and allow FSD to provide independent cost estimate review services for Library service units. We have included a request in our fiscal 2022 budget to hire the initial staff needed to establish an EPM program.

- **The Library's CIO of six years, Bud Barton, recently retired. My staff and I appreciated all of Bud's work to move the Library forward. Bud's deputy, Judith Conklin, was promoted to CIO in September. The Library made enormous progress in its modernization efforts during Bud's tenure, but there is still more work ahead. Does the Office of the CIO have everything it needs to continue to be successful? Are there any plans for changes within Office of the CIO now that there is new leadership?**

  Thank you. We were all sorry to see Bud retire. But he has left us with a strong IT leadership team in his place. Judith is a proven leader with more than 24 years of experience at the Library and a background in network engineering, IT security and telecommunications; which gives her an in-depth understanding of the agency and our technical needs.

  As Deputy CIO, Judith worked seamlessly with Bud over the last six years to direct IT operations and address the complex IT management issues confronting the Library. As Bud liked to say, we needed to stabilize, optimize and modernize our technology. Together, they made tremendous progress. We have stabilized the Library and

completely rebuilt our IT infrastructure. We have also fundamentally changed how we manage technology at the Library.

As CIO, Judith will be building on that strong foundation to ensure that technology is managed as a strategic asset for the Library. She is leading our shift to continuous innovation and continuous delivery, standardizing our processes so that we will always be optimizing the technology we have and modernizing where we can to make sure that we never fall behind. She is committed to enhancing our IT project management practices and is championing the adoption of IT Service Management (ITSM) and Technology Business Management (TBM) to make technology governance and the delivery of IT services more efficient, transparent, and user-centric. As a cybersecurity expert who has been recognized by Federal Computer Week for her work restructuring and significantly strengthening the Library's IT security posture, Judith will also continue to ensure that our systems and data are fully protected.

We do have more to accomplish. We are in the process of updating or replacing many legacy systems and applications – some of which are over twenty years old. We are also adding new collections online, and experimenting with new technology like machine learning and artificial intelligence. We requested funding in our fiscal 2022 budget to begin development of the new Library Collections Access Platform (L-CAP), as well as funding to further enhance Library IT security. We also want to transition to a new workforce productivity suite that will make it easier for Library staff to collaborate virtually from wherever they are working, and we need to overhaul the Library's in-building cellular system, mature how we use and manage our enterprise cloud services, and strengthen our capacity for IT planning and project management.

I greatly appreciate the Committee's strong support for our modernization efforts. As we all know, technology is at the heart of everything we do these days, and ensuring we have the technology we need at the Library is one of my top priorities. We will keep the Committee fully informed as we continue to refine our technology planning and identify any additional resource requirements.

The Veterans History Project

- **How have recent Library modernization achievements strengthened the Library's ability to collect and preserve Veteran's stories?**

Over the last few years we have largely focused on modernizing and optimizing the core IT infrastructure that supports Library operations, including the Veterans History Project. While largely behind-the-scenes, that work has been a critical first-step to ensure the Library has the technical foundation needed to effectively preserve data and support modern web services.

Our software development team in the Office of the Chief Information Officer (OCIO) is currently building a new IT system that will provide a modern, efficient, web-based tool that can be used across the Library to ingest, process, and manage our rapidly growing digital collections. We launched an internal pilot of the system, which we are currently

calling Paprika, in May 2021, with content from our digitized books, and we are planning to expand it to support our full collections over the next year.

At the same time, we are developing a new set of digital tools that will interface with Paprika and support the unique needs of Library programs like VHP and the broader American Folklife Center. Those tools will provide specialized forms and other material designed to make it easier for people to submit and manage data, like veterans stories. An updated user submission form for VHP is being developed with the support of OCIO's user experience design team, and we hope to have that available for use by Spring 2022.

We have also launched a project to modernize the VHP website; bringing it into our main LOC.gov web design and leveraging our full suite of tools to improve the user interface and make it easier for the public to engage with the project. Overhauling a site like that requires significant internal work by both our technical and subject matter experts. We hope to have the updated public site available for use in fiscal 2022. We will be doing additional work to modernize the database and workflow that supports VHP over the next few years as well.

OCIO is developing these new tools using modern IT architectures including Application Programing Interfaces (APIs) that makes them mobile-friendly and will allow these new systems to interface with each other and easily integrate future enhancements.

- **I enjoyed getting to learn more about the Veterans History Project when we filmed a promotional video for the project at the Library a few weeks ago. What more can my colleagues and I do to support and promote the Veterans History Project?**

  We very much appreciate the continued and robust support of the US Congress to further the Veterans History Project (VHP). That said with at least 19 million living US veterans, it is always helpful for members of Congress to share about the existing over 112,000 individual collections as well as encourage constituents whether as individuals or through organizations and schools to participate and gather the first-person narratives of the veterans in their lives. It is most effective when Members are directly involved with their constituents through VHP workshops the Library can provide, interviewing initiatives and events to draw attention to the collections; the Library stands ready to collaborate on these and other customized engagements.

Senate Committee on Rules and Administration
Oversight of Library of Congress Modernization Efforts
October 20, 2021

Responses to Questions for the Record
by Shira Perlmutter
Register of Copyrights and Director, U.S. Copyright Office

Questions Submitted by Senator Roy Blunt

1. **How did the pandemic impact the operations of the Copyright Office? How was your team able to adapt to these challenges?**

During the pandemic, the Copyright Office maintained its ability to serve Congress seamlessly, provided public services with only minor disruptions, and made substantial progress in many areas. We accomplished much without requesting any supplemental funding.

We have adapted successfully to the pandemic-caused closures of the Madison Building as well as our offsite storage facility. Fortunately, we were able to move 98% of staff to telework promptly after exiting our building in mid-March 2020, and were able to continue much of our work remotely. About 5% of our staff returned on-site in June 2020 for Phase 1 of the Library's approach to restoration of on-site operations, and 26% in late August 2020 for Phase 2. On July 8, 2021, the Library launched Phase 3.2; we have been able to reopen the Public Information Office and the Records Research and Certification service desk using an appointment system. The Copyright Office currently has 192 employees (43%) who are working at least part-time on-site.

Our operations that were primarily impacted by the pandemic were services that involve physical materials, such as recordations, notices of termination, registration claims with physical materials, and mandatory deposit. The 14 weeks of building closure and the limited return to on-site operations in 2020 resulted in some increased processing times for handling such materials. Nevertheless, we were able to shorten average processing times overall, due to greater efficiencies in handling electronic submissions. And we are making progress in addressing these backlogs, offering overtime to staff who handle the affected materials.

We have taken a number of steps to make sure that the public was able to access our services despite the disruptions caused by the pandemic. For example, in April 2020, we issued a final rule amending our regulations to permit electronic submissions for certain services that previously required physical deliveries. The Office has exercised its authority under the CARES Act in circumstances where parties are being prevented from meeting statutory deadlines. Using this flexibility, we adjusted timing provisions for cases where people could not comply with legal requirements due to the national emergency. These flexibilities have been extended

several times, and will continue until the end of the year. Based on data compiled by the Office, as well as stakeholder feedback, it is apparent that a substantial number of stakeholders are relying on these timing adjustments.

Our work on legal and policy issues continued without any pandemic-related interruptions. We completed a number of congressionally-requested policy studies, including publication of the Section 512 report, a letter regarding the market impact of the non-renewal of certain section 119 satellite licenses, the Unclaimed Royalties Study, and the State Sovereign Immunity Study, as well as an analysis of potential copyright preemption of state eBook licensing legislation. We have completed the eighth triennial Section 1201 rulemaking and launched a new study on protection for press publishers. We have also made major progress on implementation of the CASE Act in preparation for initiation of activities of the Copyright Claims Board within the statutory deadline. We continue to provide advice and assistance to our colleagues in other federal agencies, such as the Department of Justice and the Office of the U.S. Trade Representative.

Importantly, our modernization work continued apace, uninterrupted, as we and our OCIO colleagues transitioned to telework. We completed on time the move out of our old storage facility and into our new warehouse in Cabin Branch. Our licensing activities continued as well, and we obtained our fourth consecutive clean audit; our accountants were among the first back on-site to help process receipts. Even though our acquisition of physical materials for the Library collections was affected by the pandemic, the Office maintained an effective program for e-serial and e-book acquisitions, which made signification contributions to the Library's collections. And finally, we presented informative educational programs for the public, including transitioning to producing more online programming. We refreshed our website, celebrated our 150th anniversary, published an updated version of the Compendium, and updated our publication of the Copyright Act to include recent amendments to Titles 17 and 18.

2. **When your predecessor appeared before this committee almost two years ago, I asked her for an update on the status of the four major modernization projects in the Copyright Office: registration, recordation, public records, and licensing. Please describe the status of each of these projects.**

We have considerable progress to report, achieving major milestones this past year on a number of fronts. The planned Enterprise Copyright System (ECS) currently includes active work-streams on the four areas you identify: recordation, public records, registration, and licensing. In addition, OCIO is leading work on user experience design and platform services—the design and architecture capabilities underpinning the ECS.

In 2020, the Office achieved major milestones on three of these four work-streams: the launch of an electronic recordation pilot, the release of a new improved interface for the Copyright Public Records System (CPRS), and the release of a clickable prototype for the registration Standard Application.

- Recordation: We started our move from the existing paper-based system by launching the pilot of the new electronic recordation application in April 2020. In October 2021, we reached Wave 9 of users, who are filing documents and providing feedback on the system. During FY21, we completed four major releases, and additional features and functionality continue to be added. Processing times for documents received in the pilot are a matter of weeks, compared to the months needed when we receive paper-only submissions. The success of the recordation pilot has been remarkable, so much so that we are looking at opening it up to the public in 2022.

- Copyright Public Records: The new Copyright Public Records System (CPRS) pilot was released to the public in December 2020. This system uses a more powerful search engine, provides easy filtering capability, and follows user-centered design principles. A second release occurred in August 2021, which concentrated on searching, printing, sharing, exporting, and saving functions. We are continuing to receive public feedback, and, as with recordation, are looking to make this portal the single entry to our records system in 2022.

- Registration: We have done a lot of preliminary work to prepare for IT development of the new registration application, and that now proceeding in parallel for both the internal (Office staff) and external (public-facing) registration components. The first version of the Standard Application clickable prototype was released in December 2020. The Office performed moderated user testing and incorporated user feedback into a second release in March 2021.

- Licensing: Development on this application started in summer 2021. The team is creating an ingestion framework for Excel Statements of Account (SOAs) and displaying SOA information within the application for licensing examiners to review.

While these four applications are the key components of ECS, there is substantial underlying work on architecture and design elements as well. The OCIO teams provide many services to support these applications, including architecture, design, program management, IT security, and other structures, including the Scaled Agile Framework (SAFe) implementation (all tools that the Library uses in ECS development).

3. **As the Copyright Office works to complete its major modernization projects and update its workflows, the partnership between your office and Dr. Hayden and her deputy, Mark Sweeney, as well as the CIO, Judith Conklin, and the CIO's team is critical. Please describe your relationship and collaboration with the Librarian and her team, as well as the CIO and her team.**

The Copyright Office and the Office of the Chief Information Officer (OCIO) work together closely at the senior agency levels. CIO Conklin and I meet regularly with the Librarian and the

Deputy Librarian. CIO Conklin and I also meet biweekly and speak with each other as needed to address issues and accomplishments in a timely manner.

The Copyright Modernization Governance Board, led by the CIO and the Register, meets monthly with representatives from the Copyright Office and OCIO. In addition, we have regular contacts with other offices in the Library, such as the Financial Services Directorate and the Office of the General Counsel, each of whom have roles to play to support copyright IT modernization work.

At all levels, the Copyright Office and OCIO staffs interact daily on our projects. We have recently met to begin our fourth program increment (PI) under the Scaled Agile Framework (SAFe), where staff and leadership plotted out the next quarter of IT development milestones. As part of the SAFe structure, the business owner, in this case the Copyright Office, identifies and prioritizes the high-level business functions and features that an IT solution needs to accomplish, such as accepting a payment, allowing a search, or managing a work assignment queue. OCIO technology experts implement the technology to meet that business need. This collaboration allows the subject matter experts to focus on the business functions they need to accomplish their mission, while providing the Library's technology experts the ability to determine the best possible solution, leveraging the entire technical knowledge base of the Library. This collaboration is strong.

Another relevant development was the Copyright Office's consolidation in May 2021 of its various operational organizations under the supervision of an Assistant Register and Director of Operations (ARDO). As part of this consolidation, the Copyright Modernization Office was renamed the Product Management Division. The consolidation has facilitated Copyright Office coordination with centralized Library services, including those provided by OCIO. It has also increased the effectiveness of communications across areas of operational responsibility, in alignment with strategic objectives.

4. **The Library's OIG stressed in regular oversight meetings the importance of strong project schedule and cost management across the Library. The OIG even listed it as a top management challenge in its most recent semiannual report. What is your timeline for developing a project cost and schedule management plan for the Copyright Modernization Initiative?**

First, it's important to reiterate the role of IT centralization in the Library. To address the IT recommendations made by GAO and the Library's Inspector General, the Library has completely revamped how information technology is managed and controlled both for the Library overall, and for the Library's service units, including the U.S. Copyright Office. Those changes have been codified in Library regulations, Library organizational structures, and the policies and procedures established for IT at the Library.

All technology activities have been fully centralized under the Library's CIO, with a Library regulation enacted to establish the roles and responsibilities of the CIO, ensuring that the CIO has full authority over all Library IT. Library regulations have also been crafted to stipulate the Library's IT governance structure, planning and investment management, enterprise architecture, project management, and security. The new governance structure is designed to reinforce the strategic approach for IT planning and oversight called for by audit recommendations. The new governance bodies are structured to ensure that service units lead in defining the business needs and mission requirements to be met by Library technology. The overarching prioritization of IT activities is reserved for the Library's Executive Committee, which is charged with maintaining a strategic agency-level view. The specifics of implementation are the responsibility of the CIO and the Library's technical staff.

The Library has reported that, following government and industry best practices, Technology Business Management (TBM) has been implemented to maximize transparency and strategic coordination for all IT investments. An Enterprise Architecture structure and standardized application development practice have been established. A centralized, Library-wide Project Management Office (PMO) has been created within the OCIO to execute the Library's project management and system development processes and ensure that major IT projects are consistently and effectively planned and managed. IT security has also been unified under one Authorizing Official (AO) so that a senior level official with an information technology and IT security background has a holistic view of the agency's IT systems and applications. That centralized authority ensures that the IT security standards recommended by GAO and OIG, as well as government best practices including those promulgated by the National Institute of Standards and Technology, are fully maintained.

Second, this centralization means that the Library's OCIO is responsible for establishing cost estimates and schedules for IT projects. Certainly the Copyright Office has provided input over the years on our business needs and perspectives on IT modernization. Back in 2017, we shared with OCIO an initial proposed schedule for IT modernization. Thanks to Congress's appropriation of $12.1 million for five years, starting with FY19, we have taken steps to develop our business approach to the features we need in the four principal ECS applications. Under the Library's centralized IT approach, we are parties to an Interagency Agreement (IAA) under which we convey these funds to OCIO to run the IT development process. OCIO in turn, as noted above, has developed program management processes to manage IT development, including leveraging the Agile development methodology which has recently evolved to Scaled Agile Framework (SAFe).

We have taken action regarding project cost and schedule management. Earlier this year, the Office delivered to the Appropriation Committees an update on the baseline integrated master schedule (IMS) for our mission-specific modernization efforts. We reported that we had engaged Accenture Federal Services in late 2019 to assist and train our staff in the development of an IMS and Critical Path for modernization, utilizing a Library-wide contracting vehicle for program management. We indicated that the engagement was important for the long-term

planning of the scope and schedule of our modernization initiative, and to assist in tracking progress on all activities undertaken in connection with this ambitious project. There were a few high level takeaways from the Accenture engagement. First, the completion of that IMS work provided a solid schedule baseline, as recommended in the GAO's Agile Assessment Guide. This work has proceeded in parallel with, and taken into account, the Library OCIO's mid-2020 adoption of the SAFe approach to development. Second, the methodology provided is valuable. Future progress can be assessed against the baseline on the same cadence as IT development (e.g., once per twelve-week program implement (PI) as defined by the SAFe framework). We are also confident the methodology for cost validation in the Accenture report is strong and consistent with the GAO's guidance.

There were, however, some limitations. Accenture's methodology on cost assessment was based on inputs for which there were some substantial shortcomings, which will need to be addressed to improve the accuracy of the estimates. OCIO has committed to work towards providing the needed inputs so that the estimates can be refined through additional iterative work. Our PI-planning work with OCIO as part of the SAFe implementation is starting to provide some of this data. After we complete the fourth PI later in 2021, both OCIO and the Copyright Office expect to have more data on velocity and features to better evaluate cost and timing for copyright IT modernization.

Senate Committee on Rules and Administration
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Questions for the Record
Dr. Mary Mazanec

Chairwoman Klobuchar

Legislation that I supported to make Congressional Research Service (CRS) reports available to the public was signed into law in 2018. Making these reports widely available not only provides transparency to the public, but also access to free, nonpartisan, and detailed research on critical policy issues.

- Do you agree that these types of reports should be accessible to the public, and can you comment on any efforts that CRS has made to provide public access to historical reports that have not yet been digitized?
  - Response: As noted, the fiscal 2018 omnibus directed CRS to work with the Library to make available to the public all non-confidential CRS products on a website operated and maintained by the Library. CRS continues to follow the direction of Congress and our oversight committees. The Library and CRS met the target to make all applicable written products in the CRS inventory available by the end of FY2019. As of November 5, 2021, over 9,600 products are available on CRSreports.Congress.gov.

    With regard to historical reports, CRS continuously digitizes products and responses for storage in the CRSX archive. CRSX is a repository of archived non-distributable reports and other documents, which include co-mingled, untagged confidential and non-confidential information and documents. CRSX was designed as an internal archive, not for public access, and is an incomplete collection of the Service's work product. Accordingly, there are several factors that might impact the time and resources needed to make non-confidential content stored in CRSX available to the public. For example, CRSX content covers a large timespan, as well as product and document types, which have been scanned in formats that may not be readily accessible for full-text search. We anticipate that cost and work effort would increase significantly based upon the age of documents to be converted and published. Further, making non-confidential archived non-distributable products available to the public would require evaluation of individual items in the repository to assess whether each item contains confidential information, the quality of the digitized documents, and to update relevant metadata to enable full-text searching.

Senator Blunt

CRS & the Pandemic

- CRS, like the rest of the Library and the nation, was forced to shut down and transition to entirely remote work in March of 2020. That transition appeared seamless to consumers of CRS materials. What does CRS' service to Congress look like now? Have in-person briefings resumed?
    - Response: During this challenging period of time, CRS has sought to maintain or exceed the high level of service support we provide to Members of Congress, committees, and congressional staff, consistent with our core values of confidentiality, nonpartisanship, objectivity, authoritativeness, and timeliness. From March 2020 – September 2021, CRS produced over 1100 new research products on COVID-19 issues alone and published numerous resources pages; and handled approximately 10,000 COVID related requests. While complete numbers are still being finalized, during FY2021CRS handled over 68,000 requests, prepared over 1062 new products, updated over 2300 existing products, and conducted more than 250 educational seminars that were attended by over 11,000 congressional participants. Currently programming is provided virtually, however, we are planning for resumption of in-person seminars when possible.

- What challenges did CRS face throughout the pandemic? How did you and your staff adapt to those challenges?
    - Response: In person briefings have resumed on a limited basis and as the pandemic continues to come under control we anticipate providing more extensive in-person services. In addition, some staff have appeared in person to testify before Congress and provided other in-person hearing support. During the initial phases of the pandemic, in-person briefings were not being conducted. However, the Service quickly pivoted to use of virtual meeting platforms to provide briefings, which enabled CRS analysts, attorneys, and information professionals to provide continued support to Congress in Washington, congressional districts, and elsewhere.

- When do you expect CRS staff to return to the office full time?
    - Response: CRS is following the Library's phased plan for restoring onsite operations. Progression through the phases is dependent on health conditions and safety precautions. Currently we have staff working onsite who are unable to perform their work remotely during the pandemic, or who volunteer to work onsite. Our current onsite presence is typically 15-35 people per day.

CRS Modernization Initiatives

- CRS has undertaken a five-year initiative to modernize its critical systems, the Integrated Research Information System, or IRIS project. Please provide the Committee with an update on this project.
    - Response: The Library's Office of the Chief Information Officer (OCIO) and CRS are collaborating together on the development of IRIS. However, we

experienced challenges earlier this year with the planned use of a commercial software platform for the IRIS authoring and publishing, and content management system. After initial development, it was determined that the vendor could not adjust the tool to meet CRS's well defined editing and review requirements, and therefore the contract had to be canceled. We anticipate that we will be able to leverage recent advances in content management technology and cloud hosting to implement a better solution for CRS. We are moving forward with a new vendor for an authoring and publishing, and content management solution that will leverage the Library's planned migration to Microsoft 365. Work is also continuing for other IRIS components, including a replacement for the CRS request management system, an advanced taxonomy tool, and a specialized legislative text analysis program. While the need to change approaches has necessarily delayed the modernization effort, we are hopeful that we can have a minimum viable product (MVP) available by the end of fiscal 2023 and that CRS will be able to fully transition from legacy systems by the end of fiscal 2024. We anticipate future budget submissions for additional resources to further develop IRIS, and sustain the system in continuous development to ensure that we can keep it up to date and able to support evolving CRS and Congressional needs.

- IRIS will also make important updates to CRS' website as well as search functionality. What can staff expect to see once this modernization is completed?
    - Response: The IRIS initiative is an effort to update the Service's mission-specific information technology to provide CRS staff with the best resources to create and deliver products and services to Congress. CRS and OCIO are currently implementing several major work streams. For example, these efforts include implementing an updated taxonomy and search engine to enhance discovery of CRS products, and modernizing the text analysis program to provide greater ease of conducting legislative analysis to include bill similarities, bill comparisons and bill summaries. These improvements are in varying stages of development and implementation. With respect to CRS.gov specifically, it will undergo a redesign to improve user experience and search functionality, as well as accessibility. We are currently seeking congressional users to provide feedback, which will inform the user experience recommendations.

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Questions for the Record
Mr. Jason Broughton

Senator Blunt

- I understand that NLS is working to increase capacity for its services. How is NLS working to ensure that Americans are aware of all that NLS has to offer to take full advantage of that increased capacity?

  NLS has a number of initiatives at work on the national level to build awareness of our program. First, we have been and are continuing to utilize a national digital advertising campaign using paid and promoted outreach on various social media channels, strategically selected to reach potential patrons, their family and caretakers. In addition, part of this digital campaign is specifically targeted to raise awareness among professions who work with potential patron groups, with a particular emphasis on ophthalmologists and occupational therapists. Second, NLS has a national exhibit program that allows NLS to participate – even during the pandemic – in virtual consumer and trade events targeting key stakeholder groups including Abilities Expo, American Council of the Blind, American Diabetes Association, American Foundation for the Blind, American Occupational Therapy Association, Association for Higher Education and Disability, Blinded Veterans Association, Council for Exceptional Children, Music Library Association, National Association of School Nurses, National Council of State Agencies for the Blind, National Federation of the Blind, and the Special Libraries Association. Third, NLS has an ongoing collaboration with VA Blind and Low Vision Rehabilitation Services, which treats approximately one million veterans annually. Finally, NLS creates materials to assist NLS network libraries to build awareness on the state and local level, including an outreach kit to inform local schools, educational groups, etc., about eased access for individuals with reading disabilities. This kit includes informational postcards, sample outreach letters and an outreach tip sheet, as well as audience specific postcards and information sheets designed for veterans, students, and older Americans.

- Libraries across the country were forced to shut their doors to patrons at the onset of the pandemic, which included many of the libraries within NLS' partner network. Please describe the challenges those closures caused for NLS and those that use its services. How did NLS continue to support its subscribers throughout the pandemic?

  Since the COVID-19 pandemic began, all attention at NLS has focused on how to maintain high-quality service to patrons, recognizing that books and other materials provided by staff in Washington DC and at cooperating libraries around the county were likely to be even more important to readers staying home and social distancing. NLS staff has been

moved – and even more motivated – by messages like this we continue to receive from patrons:

> **Subject:** Thank you staff for continuing to provide an outstanding service to the American people
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> In spite of challenging, difficult, and dangerous circumstances, the Library of Congress, and (its) staff continue to perform admirably and even heroically in servicing the needs of visually handicapped citizens. Allow me to say thank you to everyone involved, and I wish there were more that I could do. But do know that every individual person in your organization is in my thoughts, and appreciated.

NLS and our cooperating libraries take great pride in our collective work. We are always pleased to hear from our patrons, but it has meant even more to us during the pandemic.

Some key things that were done when libraries were closed were the following: NLS moved to further emphasize our Braille and Audio Reading Download (BARD) interface, having reference staff at NLS sign patrons up directly – a process that normally takes place at the network libraries. We significantly increased centralized service from NLS multi-state centers who were able to send materials for libraries that were physically closed. We facilitated cooperation between libraries, so that libraries that were open could step in to assist patrons from nearby libraries. Libraries were also encouraged to use the Duplication on Demand (DoD) system to provide large batches of books on single cartridges to patrons to mitigate library closures and interruptions in the postal service.

Furthermore, throughout fiscal 2020 and fiscal 2021, all requests/reference calls and emails were processed. Likewise, BARD remained fully operational (with 8,890 new books added to BARD in fiscal 2021), along with both public-facing websites (which continued to be updated with new information) and network websites, NLS on Facebook, the Music Section blog, the website-version of Talking Book Topics, and one-day-a-week physical inventory service. Despite production delays, NLS still produced 4,858 books (i.e., audiobooks, ebraille, and print braille) in fiscal 2021 (as compared to 3,786 in fiscal 2020 and 4,637 in fiscal 2019) and NLS continued to circulate its content to its nation-wide network of libraries and collaborative partners. In fiscal 2020, 20,278,288 books, magazines, and music collection items were circulated.

- A recent OIG evaluation of the NLS IT Modernization Initiative found that the NLS IT Modernization Initiative projects are "not executed on schedule or within budget." Please describe how NLS is working to strengthen its project cost and schedule management practices.

  We appreciated the IG's evaluation of our IT modernization effort for NLS, and are using the recommendations to continue to improve our technology and business management processes. In particular, NLS, OCIO, and our Financial Services Directorate, are working

together to enhance IT project management as they relate to NLS's IT initiatives, including BARD, our stop-gap and next generation NLS player efforts, and the braille eReader.

In particular, NLS, in collaboration with OCIO and FSD, is mirroring OCIO's Project Management Office (PMO) existing project management guidelines and processes to ensure effective project tracking of schedule, budget, and resources. NLS has also purchased licenses for OCIO's Project Portfolio Management (PPM) tool to help NLS project coordinators and product managers further align with PMO practices. This platform is a web-based, project management tool that allows for tracking projects not only at the project level, but portfolio and program levels as well.

As OIG affirmed in the report, NLS, OCIO, and FSD have worked together on a plan that charts a proper course for resolution of the recommendations. We will absolutely continue to mature our project management and lifecycle development processes moving forward.

- I understand that the Wolfner Talking Book and Braille Library in Missouri recently participated in a locked-down smart phone pilot program, with four staff and 18 patrons participating. Was that pilot program a success? How is NLS using the feedback from Wolfner Library's patrons to guide its modernization efforts?

  As mentioned, as part of NLS' ongoing multiyear efforts to modernize its delivery services to meet the needs of 21st century patrons, NLS did recently plan and execute a three-month locked-down smart phone pilot program/field test ("Locked-down" means its only functionality was that to perform the pilot-based voice user interface functions. The phone connected to a limited set of NLS content and only connected to the internet to access that collection. No other internet connectivity was permissible nor was access to standard/typical functions of a smart phone like camera, phone, etc. Those features were locked-down and unavailable to users.). As stated, the Wolfner Talking Book and Braille Library (MO1A), a regional library within NLS' nation-wide network, was a pilot participant in the field-testing of this exploratory device. The unique aspect of this device was its voice activation capability. MO1A was a great pilot partner. Each of the eight pilot libraries (including MO1A) had 18 patron and four staff participants. In preparation, the director and staff of Wolfner all received a demonstration of the modified smart phone. MO1A made a deliberate effort to choose a variety of patrons to participate, which included Wolfner library staff, a quadriplegic user, a high volume user, a dyslexic user, youth users, as well as blind and low vison users. The library also chose patrons from the local National Federation of the Blind (NFB) and Missouri Council for the Blind (MCB), as well as library advisory board members and individuals from the Friends of Wolfner organization.

  The pilot program, or field test, was a success in that, because of Wolfner's great participation and ongoing feedback, NLS is gaining vital information about a potential next-generation device. In particular, it is gathering valuable insight as to this particular device's functionality, ease-of-use, and cost-effectiveness – analysis essential to NLS's strategic modernization going forward. Pilots like this are vital to NLS' ongoing

modernization. Our network libraries, like MO1A, are indispensable because they allow NLS to test, develop, and refine its services with real-time, up-close, patron engagement.

- The Library has been working to find a new, permanent, headquarters space for NLS since 2015. Where is the Library currently in the process regarding NLS relocation?

  The Library is working with the Architect of the Capitol (AOC) to relocate the NLS headquarters closer to the main Capitol Hill campus. Since 2015, the Library has been collaborating with Congress and the AOC to find a new, congressionally approved location. This effort is still underway. A summary of its current status is below.

  The desire for a less costly and more proximate location for NLS has been longstanding. NLS currently occupies a General Services Administration (GSA) leased facility on Taylor Street in Northwest Washington, D.C., which needs further renovation to be suitable for NLS long term and carries rising rental costs. Lease renewal costs significantly increased in both 2006 and 2016. Over the years, several options have been reviewed to house NLS closer to the main Capitol Hill campus, including leased and federal sites. Congress has continued to support relocation in various ways. In 2015, AOC completed an economic analysis. Subsequently, the House Office Building Commission (HOBC) granted use of 501 1st Street, S.E. for NLS in October 2016. An AOC-commissioned study completed in 2017 found the site to be feasible, functional and desirable for NLS's purposes, but found the existing building too small and that a new structure would be better suited to meet NLS requirements. The Joint Committee on the Library (JCL) and Appropriations Committees approved the transfer of $2.1 million in funds from the Library to AOC to proceed with NLS facility design at 501 1st Street SE in 2017. AOC obligated these funds in 2017 for initial design. Congress requested the evaluation of additional locations and the design was subsequently paused. Upon further review, the other locations were deemed infeasible and the design resumed with planning and site analysis in Summer 2020. Separately, in 2018 Congress appropriated $2M for design and initial construction of an NLS space in the existing Government Publishing Office (GPO) building. The GPO building was among the locations deemed undesirable, leaving the $2M available, possibly to advance the design effort at 501 1st Street SE.

  NLS and the Library are working in collaboration with the Architect of the Capitol on this design effort. NLS greatly appreciates the Librarian's leadership and the AOC's collaborative partnership in moving through the design process. The initial Concept Design for a new facility at 501 1st Street and the Program of Requirements for NLS were completed in January and June 2021, respectively. An updated Economic Analysis which compares the estimated construction cost to the long-term lease costs is expected in December 2021. A Schematic Design, which is approximately 20% of the total design, is also due in December 2021. Upon completion of the updated Economic Analysis, construction cost estimate, and Schematic Design, the AOC / LOC team will brief Oversight.

- What kind of challenges does the uncertainty surrounding NLS' future home cause for NLS?

  NLS is fortunate to be part of the Library of Congress, is thankful for the consistent support of Congress, and is proud to execute its mission wherever Congress directs. That being said, continuing to execute its mission at Taylor Street poses challenges of uncertain future rental costs; an again deteriorating existing infrastructure; and a location that is not proximate to the Library campus, Capitol Hill stakeholders, legislative branch partners, nor visitors to our nation's Capitol. The current 10-year lease for the Taylor Street location building ends January 2026. Lease costs increased 22 percent over prior lease periods, and future lease costs are expected rise at a greater rate.

  The amenities of a new permanent headquarters space will be multifold. It will mean the end of leasing costs as well as much lower maintenance costs. Given the central role OCIO now has in NLS mission execution, combined with the fact that there will always be technological infrastructure at NLS's headquarters, being in close proximity to the Library's main campus has obvious and enormous benefits. With an NLS presence in the Library's new Visitor Experience in the Jefferson Building, and with NLS simply being (dramatically) closer overall, new opportunities will now exist to promote NLS as part of the Library and extend its service to more potential patrons. As well, new opportunities will exist to partner with Members and Committees (i.e., Member narrations of their books, site visits by Members, site visits by blind and visually impaired constituents, opportunities to partner with the Library and other legislative branch entities to enhance tactile experiences, etc., in and on the Capitol Complex.).

  With a state-of-the-art facility, NLS can deepen, sharpen, and enhance its vision of an enhanced Media Lab to create more tactile material, more supplemental material for blind and print disabled readers rather than text-only offerings, and better recording studio-produced content for our patrons.

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