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**U.S. House of Representatives, Committee on Foreign Affairs  
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Chairman Royce, Ranking Member Engel, Members of the Committee, I am honored to appear before you today to discuss park management, wildlife trafficking and poaching. I also want to thank you for your leadership in conceiving and passing the END Wildlife Trafficking Act during the last Congress and continuing to further this important work with the DELTA Act in this Congress. Vulcan is proud to support both impactful pieces of legislation.

I am Dave Stewart, Executive Vice President and General Counsel for Paul G. Allen’s Vulcan Inc. I will start my testimony today with a positive comment about this terrible crime: in recent years, across Administrations, across the aisle, and across our government, poaching and wildlife trafficking is being increasingly recognized not only as an environmental tragedy, but an urgent threat to U.S. national security interests. This shift in thinking is essential to tackling this challenge.

Now the focus must be on how we bring government, business, and philanthropy to work together and harness our combined power and resources to take on wildlife trafficking, dismantle these criminal networks, and preserve our natural heritage while protecting global security.

Today I want to feature three things Vulcan is doing to support these efforts:

1. Our park management in Africa;
2. Our investment in law enforcement organizations to tackle this security problem; and
3. Our investment to bring innovative technology to combat wildlife crime.

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Four decades after founding Microsoft, Paul Allen continues to explore the frontiers of technology, human knowledge, and innovative solutions to the world’s toughest problems.

Mr. Allen has committed over \$2 billion to philanthropic initiatives globally, which includes fighting Ebola; mapping the human brain; undertaking ground-breaking research in artificial intelligence; determining the number of savanna elephants, and now forest elephants, in Africa; and investing in the health and security of our oceans. But philanthropy is only one part of what we do at Vulcan.

Vulcan is a company that makes technology investments for social impact, aspires to have a leading public policy voice, and tells stories about issues to which the global community has not yet provided an adequate solution. Let me give you some examples.

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The protection of iconic species and their habitats is a top priority for Mr. Allen. One example of that is our work to better understand and protect elephant populations. The Great Elephant Census (GEC), which we completed in 2016, was the first-ever continent-wide aerial survey of African savanna elephants. The survey provided urgently needed data on the size and distribution of the savanna elephant population and highlighted both where they had been most impacted by poaching and where conservation efforts are demonstrating success.

Unfortunately, and unsurprisingly given the extent of the poaching problem, the GEC discovered a decline in African savanna elephants by 30 percent in the 7 years between 2007 and 2014.

A second example is Vulcan's on-the-ground management and control of the NG26 wildlife management concession in the Okavango Delta in Botswana under lease from the Botswana government. The Okavango Delta is a unique, nearly pristine endorheic delta that hosts over 1,300 species of plants, large populations of more than 122 mammal species, and approximately 450 species of birds. NG26 is a 455,000 acre reserve within the Delta on which we operate two safari camps; maintain our own anti-poaching team, whose operations have recently expanded to a neighboring concession; fund conservation-related research, including development and operation of drones in the field that are specifically designed to assist anti-poaching operations; and work with local communities.

This work is complemented by our operations in Zambia, where we own the Bushcamp Company, which operates a lodge and six bush camps within the South Luangwa National Park (SNLP). Our Zambian team and our Charity Begins At Home Foundation work closely with the SNLP management, the Department of National Parks and Wildlife, private entities such as Conservation South Luangwa and the Wildlife Crime Prevention Project, and directly with the local community.

In our experience, local communities will participate in conservation efforts only if they see tangible benefits from preserving wild areas along with their natural resources. This can be accomplished by employing local residents in non-consumptive or sustainable tourism operations, and using proceeds from those commercial operations to improve local infrastructure, such as schools, health facilities, and boreholes for clean water provision. We have found that it is important for communities to see that wildlife conservation is an investment that will ultimately reward them. Wildlife crime can then be seen as a threat to the wellbeing of their communities, and prevention of such crime as their responsibility. Simply put, local residents need to perceive wildlife as being more valuable alive than dead. Wildlife will not be protected for sentimental or aesthetic reasons; it has to have demonstrable economic value and pay for its own existence.

Through our commercial and philanthropic operations at NG26 and in South Luangwa National Park, and our engagement with governments and park management across Africa as part of the Great Elephant Census, we understand the challenges faced in parks. We have learned the extent to which park rangers and managers face very real, practical, and technical challenges related to effectively monitoring and protecting elephants and other important species that are threatened by poaching and wildlife trafficking. A central challenge is the capacity to effectively capture and store data in a usable form that

can then be synthesized to provide one operational picture for better park management and counter-poaching efforts.

In order to tackle this issue head on, Vulcan created a product called DAS, which stands for Domain Awareness System. DAS is a military-style command, control, and communications (C3) platform designed with a lower cost structure and lower technological threshold. The targeted use is sustainable and effective operation in public and private wildlife parks and game reserves located in regions of the world where challenges to technology deployment range from a lack of basic connectivity to a lack of technical training among the staff.

DAS is a tool that aggregates data generated by the positions of radios, vehicles, aircraft (including drones), animal sensors, and any other data available to provide rangers and park managers with a real-time visualization dashboard depicting the wildlife being protected, the people and resources available to protect them, and potential illegal activity threatening them. It enables park managers to make immediate tactical decisions in real time to efficiently deploy resources for interdiction and active management.

DAS is currently deployed at 12 sites in eight countries, including three (Kenya, Tanzania, and the Democratic Republic of the Congo) that are focus countries for the United States as outlined in the U.S. State Department's report to Congress as required by the END Wildlife Crime Trafficking Act. Among the many other countries where we plan to deploy DAS next, six of them are focus countries on this list.

In addition to deploying technology to combat wildlife crime, we also provide resources and support to organizations that follow the money and go after wildlife criminals in their countries. For example, Vulcan is supporting the Protected Area Management Support, or PAMS, Foundation and the National and Transnational Serious Crimes Investigation Unit (NTSCIU) in Tanzania. In recent years, according to news reports, NTSCIU has been instrumental in over 1,400 arrests, 430 firearms seized, over 40 vehicles confiscated, and 360 prison sentences issued for wildlife crimes, effectively deterring poaching. Overall, PAMS reports being instrumental in over 2,300 poachers and traffickers arrested, over 4,400 snares removed, and over 1,400 firearms confiscated. Other organizations we resource include Conservation South Luangwa and the Wildlife Crime Prevention Project, which partner with the Department of National Parks and Wildlife in Zambia, and the Lilongwe Wildlife Trust in Malawi.

Vulcan therefore has a clear track record of working with partners on the front lines of the poaching and wildlife crime problem. We want to increase these efforts and welcome the opportunity work closely with relevant U.S. agencies to scale DAS deployments worldwide in the years to come.

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In addition to policy and technology, we have also had success directly engaging with communities using some of our film content. Paul Allen's production company, Vulcan Productions, creates documentaries and television series that often explore issues related to wildlife conservation and trafficking. And while this content is most often viewed by Western audiences, we also make efforts to reach local communities. In 2016 and 2017, we brought our feature documentary *The Ivory Game* to communities in Kenya, Tanzania, Zambia, and Malawi, and worked with local schools and nonprofit organizations to showcase the story of what's happening to the elephants that live in those countries. We have also worked closely with U.S. embassies in East Africa to use our films for screenings in communities where poaching and wildlife crime is a frequent reality.

We sometimes take it for granted that people living in countries afflicted by poaching have an accurate understanding of the problem. However, we have found that a significant proportion of these countries' citizens are unaware of the economic value of healthy elephant populations, for example, or the negative impact a continued decline in elephant populations would have on the broader economy, resulting from a loss of tourism revenue. With the right content and right distribution partners on the ground in these countries, we can do a lot to enhance that understanding.

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Vulcan's wildlife and natural resource protection work is also not limited to the terrestrial sphere. Last year, Mr. Allen announced a \$40 million commitment to develop Skylight, a satellite-based monitoring and surveillance tool that aims to provide actionable intelligence and dark target detection to discover and identify vessels that are fishing illegally on the world's oceans.

This committee knows that, similar to wildlife crimes on land, illegal, unreported, and unregulated fishing (IUU) converges with other transnational crimes, is a trigger for conflict, and threatens a stable supply of food and employment for billions of people around the world. If not managed appropriately, the indiscriminate pillage of the world's oceans can have significant implications for global peace and stability.

Similar to DAS, we are designing Skylight to be a cost-effective tool for law enforcement and security organizations in the United States and around the world. Indeed, in many cases, our partners are under-resourced while grappling with an ever-growing list of priorities. Skylight helps improve their effectiveness and efficiency against the global challenge of IUU fishing.

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To conclude, I'd like to underscore some opportunities for public-private partnerships that lie ahead.

Over the last few years, and in the years to come, Vulcan will invest upwards of \$60 million in DAS, Skylight, and other technological platforms to bring tested technologies to the field. We believe it is our responsibility to make these investments so that DAS, Skylight, and other tools can be cost-effective, impactful, and easily absorbable for the organizations who will use them on a daily basis. We do not expect to recoup our own investment, but we do need to find partners that can cover basic operational costs in order to provide sustained impact over the long term.

In many of our partner countries, the ongoing financial reality makes it a challenge to allocate even a few thousand dollars a month to implement the technological capabilities necessary to combat these threats. We therefore must work with donor governments and global financial institutions to help us scale.

This is why we now are working aggressively pursuing public-private partnerships with relevant U.S. government agencies and international organizations to deploy our tested technologies at scale. Ultimately, our goal is to ensure that our government partnerships are financially sustainable over the long term. But until then, we will need assistance and hope to work together with you, distinguished members of this Committee, to identify avenues to put proven technologies into the hands of more

partners to solve critical issues, and to continue to encourage effective public-private partnerships in this space.

In closing, I want to thank the members of this Committee for your tireless work on these issues. Vulcan will continue to deploy world-class technology, storytelling, and policy to support your efforts to end wildlife trafficking and improve park management. Thank you for the opportunity to testify before you today and I look forward to your questions.