

**ALASKA STATE LEGISLATURE
HOUSE RESOURCES STANDING COMMITTEE**

February 23, 2009
1:04 p.m.

MEMBERS PRESENT

Representative Craig Johnson, Co-Chair
Representative Mark Neuman, Co-Chair
Representative Bryce Edgmon
Representative Kurt Olson
Representative Paul Seaton
Representative Peggy Wilson
Representative David Guttenberg
Representative Scott Kawasaki
Representative Chris Tuck

MEMBERS ABSENT

All members present

COMMITTEE CALENDAR

OVERVIEW: PRESENTATION ON CRITICAL TERRAIN DATA REQUIREMENTS
FOR RESOURCE DEVELOPMENT IN ALASKA

- HEARD

HOUSE JOINT RESOLUTION NO. 7

Urging the United States Congress to pass legislation to open the coastal plain of the Arctic National Wildlife Refuge to oil and gas exploration, development, and production.

- MOVED CSHJR 7(RES) OUT OF COMMITTEE

HOUSE JOINT RESOLUTION NO. 18

Urging the United States Congress to refrain from passing legislation that designates land in Area 1002 of the Arctic National Wildlife Refuge as wilderness.

- MOVED CSHJR 18(RES) OUT OF COMMITTEE

PREVIOUS COMMITTEE ACTION

BILL: HJR 7

SHORT TITLE: ENDORSING ANWR LEASING

SPONSOR(S): REPRESENTATIVE(S) MILLETT

01/22/09 (H) READ THE FIRST TIME - REFERRALS
01/22/09 (H) RES
02/23/09 (H) RES AT 1:00 PM BARNES 124

BILL: HJR 18

SHORT TITLE: OPPOSING ANWR WILDERNESS DESIGNATION
SPONSOR(S): REPRESENTATIVE(S) MILLETT

02/11/09 (H) READ THE FIRST TIME - REFERRALS
02/11/09 (H) RES
02/23/09 (H) RES AT 1:00 PM BARNES 124

WITNESS REGISTER

DAVE MAUNE, PHD, PSM, PS, GS, CP, DFM, Senior Associate
Geographic Information Services
Dewberry

Fairfax, Virginia

POSITION STATEMENT: Provided a presentation on critical terrain data requirements for resource development in Alaska and recommended Interferometric Synthetic Aperture Radar (IFSAR) as the best solution for Alaska's needs.

REPRESENTATIVE CHARISSE MILLETT
Alaska State Legislature
Juneau, Alaska

POSITION STATEMENT: Presented her sponsor statement for HJR 7.

JASON BRUNE, Executive Director
Resource Development Council
Anchorage, Alaska

POSITION STATEMENT: Supported HJR 7.

PAM A. MILLER, Arctic Program Director
Northern Alaska Environmental Center
Fairbanks, Alaska

POSITION STATEMENT: Opposed HJR 7.

LUCI BEACH, Executive Director
Gwich'in Steering Committee
Fairbanks, Alaska

POSITION STATEMENT: Opposed HJR 7.

CHRIS CANNON
Fairbanks, Alaska

POSITION STATEMENT: Opposed HJR 7.

ADRIAN HERRERA, ANWR Consultant
Arctic Power
Washington, DC

POSITION STATEMENT: Supported HJR 7 and HJR 18.

MIKE NAVARRE, Co-Chair
Board of Directors
Arctic Power
Anchorage, Alaska

POSITION STATEMENT: Supported HJR 7.

JIM CAMPBELL, Owner
Arctic Treks
Fairbanks, Alaska

POSITION STATEMENT: Opposed HJR 7.

KEVIN BANKS, Acting Director
Central Office
Division of Oil & Gas
Department of Natural Resources
Anchorage, Alaska

POSITION STATEMENT: Answered questions during hearing on HJR 7.

REPRESENTATIVE CHARISSE MILLETT
Alaska State Legislature
Juneau, Alaska

POSITION STATEMENT: Presented her sponsor statement for HJR 18.

PAMELA A. MILLER, Arctic Program Director
Northern Alaska Environmental Center
Fairbanks, Alaska

POSITION STATEMENT: During the hearing on HJR 18, testified that the Arctic National Wildlife Refuge was set aside to protect its fish, wildlife, and recreation values.

CHRIS CANNON
Fairbanks, Alaska

POSITION STATEMENT: During the hearing on HJR 18, testified that wilderness guiding is an important part of his income.

JIM CAMPBELL, Owner
Arctic Treks
Fairbanks, Alaska

POSITION STATEMENT: During hearing on HJR 18, testified that development of the 1002 Area within the Arctic National Wildlife Refuge would shut off movement of the caribou.

JASON BRUNE, Executive Director
Resource Development Council
Anchorage, Alaska

POSITION STATEMENT: Supported HJR 18.

MIKE NAVARRE, Co-Chair
Board of Directors
Arctic Power
Anchorage, Alaska

POSITION STATEMENT: Supported HJR 18.

ACTION NARRATIVE

[1:04:14 PM](#)

CO-CHAIR CRAIG JOHNSON called the House Resources Standing Committee meeting to order at 1:04 p.m. Representatives Johnson, Neuman, Guttenberg, Olson, Edgmon, Wilson, and Kawasaki were present at the call to order. Representatives Seaton and Tuck arrived as the meeting was in progress.

OVERVIEW: PRESENTATION ON CRITICAL TERRAIN DATA REQUIREMENTS FOR RESOURCE DEVELOPMENT IN ALASKA

[1:05:37 PM](#)

CO-CHAIR JOHNSON announced that the first order of business would be a presentation on critical terrain data requirements for resource development in Alaska.

DAVE MAUNE, PHD, PSM, PS, GS, CP, DFM, Senior Associate, Geographic Information Services, Dewberry, first explained that digital elevation modeling (DEM) is the digital representation of the shape of the terrain in three dimensions. He said it is a vital part of mapping and mapping is vital to resource development and management anywhere in the world.

DR. MAUNE began his PowerPoint briefing on critical terrain data requirements for resource development in Alaska. He noted that his Alaska DEM whitepaper, published last summer, was well received and widely approved [slide 2]. He explained that flat states like Florida have elevation data with one foot contour accuracy and other states have two, five, or ten foot contour maps; he is trying to get twenty foot or better for Alaska. Justification for DEM in Alaska comes from aviation safety and

applications such as digital orthophotos. [Digital orthophotos do not have image distortions caused by camera tilt and topography; they are therefore uniform-scale and can be used as a photographic map.] Other user applications for DEM in Alaska include environmental assessments and resource development [slide 3]. Dewberry is recommending Interferometric Synthetic Aperture Radar (IFSAR) as the best solution for Alaska's needs, he said.

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DR. MAUNE noted that he was selected to write the whitepaper because he is "considered to be the honest broker in this industry for digital elevation models." He has written accuracy standards and specializes in DEM user applications and quality assessment user requirements, he continued. Dewberry does not have an airplane or fly satellites; rather Dewberry uses the best from all of these sources to determine the best solution for the problem at hand.

DR. MAUNE advised that Alaska differs from the other states because it has the most mapping zones, largest area, longest distances, tallest mountains, longest shoreline, fewest roads, most airfields, and the most impact from climate and sea level changes [slide 5]. He further advised that Alaska's elevations and gravity fields are changing as a result of post-glacial rebound. Alaska has America's worst geodetic and geospatial infrastructure and is the only state with mapping products that do not satisfy National Map Accuracy Standards. The U.S. Geological Survey (USGS) topographic maps have been neglected for the 50 years that Alaska has been a state. With all of Alaska's vital natural resources, it is a crime that the state does not have better maps, he opined. Moreover, transoceanic shipping is coming around Alaska's north shore.

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DR. MAUNE explained that when conducting land or aerial Global Position System (GPS) surveys for mapping [slide 6]:

... we get elevations above a mathematically defined ellipsoid and those are called ellipsoid highs. But elevations that you and I refer to have differences that tell you which way the water flows and that is a function of gravity. And there are gravity variations in the crust of the earth that cause something called the geoid model which is really mean sea level

projected on the terrain. So elevations are really elevations above the geoid and not elevations above the ellipsoid and so to correct for elevations we need to know what is called the geoid height. And the geoid model in Alaska is so much poorer than anywhere else in the country. We get elevations in the other 49 states accurate to plus or minus two centimeters. In Alaska ... it is plus or minus two meters because we don't have good gravity data in Alaska. So that is one of the problems we are trying solve.

DR. MAUNE added that the National Oceanic and Atmospheric Administration (NOAA) is acquiring gravity data for its gravity program and has given Alaska the highest priority [slide 7]. The agency has \$37 million in its budget request for this. He said pilots have told him that mountains are displaced by miles on USGS quad maps and the true elevations of some mountains are as much as 3,000 feet higher than what is shown on the maps [slide 10]. The USGS has also confirmed that some mountains are mapped several miles away from their true locations. This leads to a lot of aviation accidents, he said.

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DR. MAUNE discussed the orthorectification problems in Alaska [slide 11]. Aerial images are projected or "draped" on top of a digital terrain model and then an orthophoto image is produced, he explained. However, "draping" does not work in Alaska because the National Elevation Dataset (NED) is inaccurate. The misfit between the imagery and the elevation data results in rivers going up and over mountains, or rivers being depicted in the wrong valleys [slide 12]. An accurate map of Alaska cannot be produced because there is no accurate digital elevation data.

DR. MAUNE said that under an agreement with the International Civil Aviation Organization (ICAO) certain standards must be met within the next few years [slides 13-16]. One of those standards requires elevation data to be accurate within a 45 kilometer radius of air fields for landings that are under Instrument Flight Rules (IFR). For example, to land at the Wasilla airport without visibility a pilot would have an accurate database of the terrain within a 45 kilometer radius, thus ensuring that the plane will not plow into a nearby mountain [slide 17].

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DR. MAUNE explained that the Electronic Terrain and Obstacle Database (eTOD) is an international standard that is used when Visual Flight Rules (FVR) do not work and Instrument Flight Rule procedures are needed [slide 18]. He said the goal is to minimize Controlled Flight Into Terrain (CFIT), which is a serious problem in Alaska. He drew attention to the elevation postings and obstacles depicted on a digital elevation model [slide 19].

DR. MAUNE specified that the ICAO Area 2 standards require a 20 foot contour accuracy within a 45 kilometer radius of airfields [slides 20-24]. The [Area 1] ICAO standard requires a 200 foot contour accuracy statewide. Alaska is the only state that does not meet either of these two standards. However, Alaska will be required to meet them by November 20, 2010. He said the peach colored circles on slide 25 are the Alaska airfields rated for Instrument Flight Rules and these rules require elevation data. The other airfields on slide 25, he continued, are places where pilots land under Instrument Flight Rule procedures even though none of those airfields have the digital terrain data necessary to support safe navigation under Instrument Flight Rules.

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DR. MAUNE described the vertical accuracy requirements needed by the DEM user groups listed on slide 26. He said column 2 on the slide delineates the high-accuracy requirements for which airborne Light Detection And Ranging (LiDAR) is used. Column 3 delineates the mid-accuracy requirements for which airborne IFSAR is the technology of choice. Column 4 delineates the low-accuracy requirements for which satellite technology can be used to do the job. He said it is his opinion that Column 2, which uses IFSAR, is the solution that would best meet Alaska's statewide needs. The two firms that could do this are Intermap and Fugro EarthData [slide 28], he continued.

DR. MAUNE reviewed the strengths and weaknesses of the various technologies. He said optical imagery is neither day/night nor all-weather and given the cloud cover in Alaska it would take forever to get the imagery as well as cost a lot more [slide 30]. LiDAR penetrates trees, but would be unaffordable to do statewide and the accuracy of two-foot contour intervals is not really needed [slide 31]. Therefore, IFSAR is the technology that Alaska needs [slide 32], he reiterated. It is both day/night and all-weather, it would fly systematic patterns statewide, and it would also collect the gravity data.

[1:15:08 PM](#)

DR. MAUNE further explained that IFSAR gives a digital terrain model (DTM), a digital surface model (DSM), and an orthorectified radar image (ORI) which is used as the control for fitting the color imagery to produce orthophotos [slide 33]. Another consideration of IFSAR is that it flies at the right altitude [slide 34]. He said each of the two firms that can do IFSAR has certain competitive advantages and he has concluded that Alaska needs a hybrid solution [slide 35].

DR. MAUNE specified that 24 percent of the land in Alaska is state owned [slide 36] and the majority of the rest is federally owned. Regarding the question of "Whose problem is it?" he said he believes it is everyone's problem and that a funding partnership is needed [slide 37]. He provided briefings to the National Digital Orthophoto Program (NDOP) and the National Digital Elevation Program (NDEP) in August, he related. There is unanimous consent among state and federal agencies that: there is no time to waste, Alaska's requirements must be met, and a timely, cost-effective solution must be found [slide 38]. There are other points that are not time-critical, he added, and once the IFSAR is under contract, decisions can be made on whether the Geographic Information Network of Alaska (GINA) should serve the data in different file formats since different users need different formats [slide 39].

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DR. MAUNE said he was tasked by the U.S. Geological Survey (USGS) to develop the Alaska DEM Funding and Implementation Plan [slide 40]. He has briefed all of the agencies listed on slide 40 and there is 100 percent agreement that this is a high-priority problem and that IFSAR data is needed for Alaska, he emphasized.

DR. MAUNE said he has also briefed the Federal Aviation Administration (FAA). The FAA's goal of increased safety is outlined in the agency's Strategic Plan for the next five years, he related. The plan mentions Alaska eight times, while no other state is mentioned [slides 51-56]. This is a big problem only in Alaska and the FAA knows it, he pointed out. The FAA's goal is to reduce accidents by 10 percent nationwide and by 30 percent in Alaska.

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DR. MAUNE said the problem is garbage in, gospel out. People think that because elevation data is there it is gospel when it is actually garbage. This is the problem that needs to be solved, he said. The National Geospatial-Intelligence Agency (NGA) is producing "DTED2" of Alaska. But, he conveyed, the NGA says it would rather spend its money on IFSAR data because their data has 18 meter accuracy while Alaska needs the 3 meter (20 foot) accuracy that would be provided by IFSAR.

DR. MAUNE reported that the USGS is responsible for mapping functions, but that the agency highly leverages everything - imagery is leveraged 20:1 and elevation data is leveraged 10:1 - so the USGS is always looking for partners. This project meets President Obama's call for being "shovel ready", he said. The planes are ready to fly; they just do not have the money to do it.

DR. MAUNE noted that he is proposing to brief Alaska's congressional delegation, but he must ask whether Alaska will seek and accept federal stimulus funds. In addition to needing accurate maps for aviation safety, Alaska needs accurate maps for resource development.

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DR. MAUNE, in response to Representative Wilson, explained that he read a headline in the "Washington Post" which stated that Fugro EarthData was being hired to fly IFSAR data of Brazil, and that his colleague, Steve Culligan (ph), believes the project is being funded by the National Aeronautics and Space Administration (NASA). Thus, when he previously used the term "they" he was referring to NASA.

DR. MAUNE, in response to Co-Chair Johnson, said he thinks that only part of Brazil is being mapped, not all, and this is why the cost for IFSAR is \$23 million for Brazil as compared to [\$60] million for Alaska.

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DR. MAUNE, in response to several questions from Co-Chair Neuman, explained that Alaska's Capstone program is glass cockpit avionics - the pilot knows where he or she is at and where the terrain is beneath the plane, thus the pilot does not fly into the terrain. He said the nature of interferometry allows the tracking of changes [such as the receding of icecaps] and an additional advantage of IFSAR is that a RADARSAT

satellite can be combined with the IFSAR dataset to see how things are changing. He allowed that he does not know what the exact cost of the mapping would be, but his best guess is about \$60 million. He offered his personal opinion that because Alaska owns 24 percent of the land, a fair split of the cost would be 25 percent (\$15 million) paid by Alaska and 75 percent (\$45 million) paid by the federal government. When this split has been suggested to federal agencies, none have argued.

CO-CHAIR JOHNSON agreed that this is an important issue and that the state needs to settle on a technology to avoid paying a lot for something that does not work well. He encouraged Dr. Maune to continue working on this and to finalize the numbers so decisions can be made.

CO-CHAIR NEUMAN remarked that the \$15 million may not be hard to get to if this were to replace the mapping that is currently being done by state agencies. Having private industry do the mapping would be more like a transfer of funds than an addition of funds. He would like to see that, he said.

[1:27:19 PM](#)

DR. MAUNE, in response to Representative Guttenberg, said he was asked to do this study because the American Society for Photogrammetry and Remote Sensing sees him as the "honest broker" in this business. Everybody else has their solution that they are promoting. However, he does not have one solution and Dewberry does not own any airplanes. He has written all the major accuracy standards for elevation data, he explained, so no matter what the technology he is the guy who has written the standards. He has written about DEM user applications, quality assessment, and user requirements; evaluated all of the technologies; and published a book that reviews the advantages and disadvantages, capabilities and limitations, of each technology. Because he wrote this book and because there are so many differences of opinion in Alaska on what is the right thing, he was hired to prepare the whitepaper ["Digital Elevation Model (DEM) Data for the Alaska Statewide Digital Mapping Initiative (SDMI)"]. At a DEM workshop held in July 2008 he conducted interviews with technology companies and used that information to come up with the accuracy tables displayed in his presentation. In further response, he explained that he was hired to do this study through a task order under Alaska Mapped. The order was signed by the University of Alaska Fairbanks, but there are a lot of state and federal agencies involved in Alaska Mapped, he said.

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CO-CHAIR JOHNSON encouraged Dr. Maune to come up with a firm cost figure for the legislature to consider.

DR. MAUNE clarified that his cost figure is not totally out of the air. The firms are reluctant to disclose much cost information because it can be used against them later, he explained, but the best estimate he has received from the firms is \$60 million.

HJR 7-ENDORSING ANWR LEASING

[During the hearing on HJR 7, one witness testified in regard to both HJR 7 and HJR 18.]

1:31:17 PM

CO-CHAIR JOHNSON announced that the next order of business would be HOUSE JOINT RESOLUTION NO. 7, Urging the United States Congress to pass legislation to open the coastal plain of the Arctic National Wildlife Refuge to oil and gas exploration, development, and production.

REPRESENTATIVE CHARISSE MILLETT, Alaska State Legislature, speaking as the sponsor of HJR 7, first noted that there is a proposed committee substitute (CS) for this resolution.

CO-CHAIR NEUMAN moved that the committee adopt the proposed CS for HJR 7, labeled 26-LS0400\R, Bullock, 2/6/09 ("Version R"), as the working draft.

REPRESENTATIVE SEATON objected and requested an explanation of the differences between the CS and the original bill.

REPRESENTATIVE MILLETT said the only change is on page 2, line 31, where "2,000 to 7,000 acres" is changed to read "2,000 acres". The change is based on what industry has stated is the acreage needed for development on the coastal plain.

REPRESENTATIVE SEATON withdrew his objection. There being no further objection, Version R was before the committee.

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REPRESENTATIVE MILLETT paraphrased from the following written sponsor statement [original punctuation provided]:

House Joint Resolution 7 urges the United States Congress to pass legislation to open the coastal plain of the Arctic National Wildlife Refuge [ANWR] to oil and gas exploration and production.

ANWR remains a key component of our nation's effort to achieve energy independence. Combining environmentally responsible oil production with renewable energy sources like wind, solar and hydro will reduce and could someday even eliminate our dependence on crude oil from nations that are hostile to the United States.

New directional drilling technology will protect the delicate arctic ecosystem and shrink the size of the development footprint. Someday it may even be possible to drill outside the 1002 area.

All the reasons for opening ANWR are still valid. Failing to even address the issue only slows down America's effort to gain true energy security in the future.

Opening ANWR is more important for America's economy and national security than ever. HJR7 expresses the Alaska Legislature's desire to see the 1002 area open as soon as possible and respectfully asks congress to pass legislation permitting oil and gas exploration and development to go forward.

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REPRESENTATIVE SEATON understood that any oil removed from under the refuge by directional drilling outside the refuge boundary would provide royalties and production taxes to the state. He asked whether this has been looked into relative to full development.

REPRESENTATIVE MILLETT replied that this cannot be answered until there is seismic data and getting this data is another reason for opening up ANWR. The last seismic data was shot in 1983 and 1984 in 10-mile increments, which is inadequate for determining whether directional drilling is possible. Whether

directional drilling from onshore or offshore, a company would still need access to the land to shoot more seismic.

CO-CHAIR JOHNSON added that in her recent speech to the legislature, U.S. Senator Lisa Murkowski said she will champion directional drilling, but at best case it would only reach 10 percent of the resource. He said he is looking forward to drilling the 20 miles of pipe and the state sharing in the royalties and taxes with the federal government.

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REPRESENTATIVE SEATON clarified that he does not oppose this, but it is an issue that needs to be thought about. If development is blocked, there may be ways of actually getting more royalty and production tax for the State of Alaska, so the issue needs to be raised in order to prompt the federal government to come forward because it wants the royalty.

CO-CHAIR JOHNSON remarked that the federal government will become more receptive to opening up the refuge once the state starts taking oil from underneath it. The offshore has its own set of barriers, he continued, and the state still has concerns about Pt. Thomson and other leases on the west side of ANWR, but the royalty and tax issue is a different argument for a different day.

[1:38:37 PM](#)

REPRESENTATIVE GUTTENBERG understood that 2,000 acres represents the total footprint on 7,000 acres. He asked whether this is the reason for the change made by the CS.

REPRESENTATIVE MILLETT replied yes. She added that the change is also in line with congressional legislation and ensures that everyone is talking about the same amount of acreage for the footprint, which is 2,000.

CO-CHAIR JOHNSON recalled that last year's resolution was changed from 2,000 acres to 7,000 based upon information that it might take a little more, but further review by the industry determined that it would be 2,000 acres.

[1:40:07 PM](#)

CO-CHAIR NEUMAN understood that 2,000 acres is the total footprint and would include the roads and areas that the

pipelines are on. He inquired about the amount of estimated reserves for gas and oil in the 1002 Area.

REPRESENTATIVE MILLETT responded that gas is estimated at 0-10 trillion cubic feet (tcf) and oil is estimated at 1,642 billion barrels in place. In further response, she said Adrian Herrera of Arctic Power would explain why the number 0 is used for the gas. She noted that the federal gas from ANWR is factored in for the gas pipeline.

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CO-CHAIR NEUMAN asked whether gas within the refuge is composed of hydrates because taking out the hydrates to make added-value products in Alaska would create six times the number of jobs in the state. Not taking them out would be a sin, he opined.

REPRESENTATIVE MILLETT said she does not know.

CO-CHAIR JOHNSON opened public testimony.

[1:43:28 PM](#)

JASON BRUNE, Executive Director, Resource Development Council, testified in support of HJR 7. He spoke from the following written statement [original punctuation provided]:

RDC is a statewide, non-profit, membership-funded organization founded in 1975. The RDC membership is comprised of individuals and companies from Alaska's oil and gas, mining, timber, tourism, and fisheries industries, as well as Alaska Native corporations, local communities, organized labor, and industry support firms. RDC's purpose is to link these diverse interests together to encourage a strong, diversified private sector in Alaska and expand the state's economic base through the responsible development of our natural resources.

The 1002 Area of ANWR is considered the nation's most promising onshore oil and gas prospect, and there is strong support across Alaska for environmentally-responsible development of the oil and gas resources beneath the Coastal Plain. Such development could play a large role in Alaska's future prosperity, create hundreds of thousands of jobs across America, and reduce our reliance on foreign oil.

We encourage the Committee to vote in favor of this resolution.

[1:45:13 PM](#)

PAM A. MILLER, Arctic Program Director, Northern Alaska Environmental Center, related that there is much excitement across Alaska about the state's renewable energy sources such as wind, solar, and hydrogen. She asked why the state is not leading the world in regard to these future energy sources. She opposed HJR 7 on the grounds that there is a better way to re-power America and Alaska. In addition to renewables, she said, far more energy could be provided through energy conservation.

MS. MILLER urged the state to instead deal with the integrity and corrosion issues that plague the aging Trans-Alaska Pipeline System (TAPS). She cited a recent incident in which the state found that a pipeline could have blown up. Corrosion is happening at the newer fields as well as at the older fields, she pointed out. Despite establishment of the Petroleum Systems Integrity Office, nothing has yet been done on the ground.

CO-CHAIR NEUMAN responded that the corrosion issue is a large part of what the Petroleum Systems Integrity Office is doing, so people are on the ground in this regard.

[1:49:33 PM](#)

LUCI BEACH, Executive Director, Gwich'in Steering Committee, pointed out that the Gwich'in people have lived south of the Brooks Range for 20,000 years. The Gwich'in culture is still based on and dependent upon the Porcupine Caribou Herd. "We want to see this place that we call the Sacred Place Where Life Begins protected, and our way of life," she said.

MS. BEACH noted that through the years the Gwich'in have seen the promises and failures of the oil industry, including Doyon, Limited. Therefore, the Gwich'in are not willing to have this area gambled with because it is the last portion of the North Slope that is not available. "Many of our friends on the North Slope are experiencing drastic changes, and we too in the Interior, as far as the change in the climate," she related. There is an opportunity to become a world leader in alternative development instead of continuing to promote non-sustainable industry. There needs to be a re-shaping of thought and these places should be protected for future generations.

[1:51:38 PM](#)

CO-CHAIR JOHNSON said this is one of the few resolutions where a group of people or a herd or a lifestyle has been singled out to ensure that the resolution will do what Ms. Beach is asking to be done. He read page 3, lines 29-31, of Version R which states:

... that that activity be conducted in a manner that protects the environment and the naturally occurring population levels of the Porcupine Caribou herd on which the Gwich'in and other local residents depend....

CO-CHAIR NEUMAN understood that the wildlife populations in the Prudhoe Bay area have increased about 30 percent since production began and that private funding for biologists has improved the science.

MS. BEACH said that Co-Chair Neuman is referring to the Central Arctic Caribou Herd and comparing this herd to the Porcupine Herd and is comparing apples to oranges. The difference is the proximity of the Central Arctic Caribou Herd to its feeding grounds, she explained. The distance between the Beaufort Sea and the Brooks Range is 100 miles and the smaller Central Herd is not migratory. However, the Porcupine Caribou Herd has the longest migration distance of any terrestrial mammal in the world. It is an arduous journey and [where this herd feeds] between the Beaufort Sea and the Brooks Range is a distance of only 40 miles. The Porcupine Herd is fragile and is experiencing impacts from climate change. She pointed out that the folks at Nulqsut were promised there would be a certain amount of development, but that expanded and now they are surrounded by development. So, it is hard to believe [the resolution's] promise, she said.

[1:54:37 PM](#)

CHRIS CANNON, spoke as a concerned resident who enjoys using wild lands in Alaska. He said he does not endorse HJR 7 because it is not a solution to meet the energy needs of the U.S. Alaska will cripple itself in future years if it does not stop depending on the petroleum industry and catch up to the rest of the world in focusing on renewables, he opined.

MR. CANNON said that the amount of oil in the Arctic National Wildlife Refuge is minimal in comparison to the nation's energy consumption; therefore it will do little to reduce the amount of oil imported. Development should instead be focused on state land between the Colville and Canning rivers. "The track record of BP and other companies operating in Alaska is a testament that oil development cannot be done in an environmentally friendly manner," he continued. "Several hundred oil and chemical spills occur on the North Slope annually." The effects of climate change are more pronounced in Alaska than the rest of the country and it does not make sense to allow new sources of emissions when renewable energy resources exist. Drilling in the Arctic National Wildlife Refuge is a sidetrack distraction from a comprehensive energy plan. "Alaskans deserve more from our state than beating a dead horse and calling it new energy policy," he said.

[1:57:18 PM](#)

ADRIAN HERRERA, ANWR Consultant, Arctic Power, said he has worked on the Arctic National Wildlife Refuge issue in Washington, DC, and Anchorage since 2003. He said he supports Representative Millett's resolutions and that it is his and Arctic Power's opinion that these resolutions are vital for the voice of Alaska's people in Washington, DC. He uses these resolutions in discussions with members of Congress, the Department of Interior, and members of coalition groups across America, he explained. These groups include the National Association of Manufacturers, national chambers of commerce, American veterans groups, and produce producers like the American Cattle Ranchers Association. He pointed out that every two years there are approximately 60 new members of Congress who need to be introduced to the voice of Alaska. The Arctic National Wildlife Refuge is the most debated issue on Capital Hill, so there is no substitute for these types of resolutions in Washington, DC, he said. Nineteen bills were active on the House and Senate floors last year, more than any other issue taken up by Congress.

[2:00:15 PM](#)

MR. HERRERA related that three bills were introduced during the first week of the new Congress this January. Two of those bills, one in the House and one in the Senate, would designate the 1002 Area as Wilderness. The House bill has a special provision for Native Kaktovik residents to conduct motorized subsistence hunting, but the Senate bill does not. The third

bill, HR 49, introduced by Alaska Congressman Don Young, would open the 1002 Area to drilling and would direct that the resulting revenues from the lease sales and production taxes, estimated to be \$4 billion and \$105-\$289 billion, respectively, be used to fund the alternative energy provisions in the "national energy bill". A fundamental change in the ANWR debate is that it has gone from an Alaska-based issue to a nationally-based energy issue. He said HR 49 is an olive branch to the environmental side because the "national energy act" does not include enough funding to cover all of its provisions for development of alternative energy sources and HR 49 would provide that funding. At least three more "pro-ANWR" bills will be introduced by June 2009, he added.

[2:02:58 PM](#)

REPRESENTATIVE EDGMON offered his support for HJR 7, but commented that the ANWR fight has been going on for 29 years and therefore he would like to hear a more realistic picture than what was just presented.

MR. HERRERA replied, "There is no doubt in my mind that the next four years of operations on Capital Hill are going to be on the defensive." The majority of Democrats vote against this measure, although it is not a partisan issue. The question is the double-edged sword of the filibuster rule in the U.S. Senate which requires getting 60 votes in favor of ANWR legislation. That always has been and will continue to be very hard to do. It will also be very difficult to get 60 votes in opposition to turning ANWR into Wilderness. This is a defensive action, he continued, and Arctic Power does realize the representative's point. This is a fight for economic survival. Politically, it is near impossible to overturn a Wilderness designation and this will continue to be the reality unless the price of gasoline goes to \$15 per gallon. There is no better time than the present to go on the offensive, he maintained. Out of 19 bills introduced in Congress last year, only 2 were introduced by Alaskan members, which shows that it is truly a national issue.

[2:06:33 PM](#)

CO-CHAIR NEUMAN asked what percent of Americans support opening the Arctic National Wildlife Refuge.

MR. HERRERA answered that there have been numerous national polls over the past 20 years and mostly they are quite different from each other. Opinion fluctuates with the price of gasoline:

In years of cheap gasoline, "Pew polls" will show that 48-49 percent of the population supports opening ANWR; and when gasoline is high, the "Pew polls" will go up to 57 percent. He said he is citing the "Pew polls" because it is Arctic Power's opinion that "they work against us [and] by using them we state the worst-case scenario." Both the proponents and the antagonists on the ANWR debate throw out poll statistics that support their own positions, so polls get shot down very easily on Capital Hill.

[2:07:59 PM](#)

CO-CHAIR NEUMAN said the number he has heard is 65 percent of Americans. He understood that a majority of Alaskans support opening ANWR.

MR. HERRERA agreed and said he believes the last poll in Alaska showed a 75 percent support rate for opening ANWR. He stated his personal opinion about the Gwich'in's position in opposition to opening ANWR.

CO-CHAIR JOHNSON stopped Mr. Herrera's testimony.

REPRESENTATIVE GUTTENBERG expressed his disappointment over a past experience that he had with Arctic Power in Washington, DC. He urged that the reality of the situation be brought to the table, that inaccurate and inappropriate statements not be made, and that it be recognized there is a major difference between a corporation and its people.

[2:11:35 PM](#)

MIKE NAVARRE, Co-Chair, Board of Directors, Arctic Power, spoke in favor of HJR 7. He said he has spent considerable time working this issue in Washington, DC, and around the country and Arctic Power has been marginally successful. He allowed that Arctic Power has made some mistakes in the past. The threat of a Wilderness bill is very real and this needs to be prevented to preserve the opportunity for development, he maintained. The debate has changed and one way it has changed is the economic downturn. The jobs aspect of an ANWR development bill is critical and important to the debate to generate support.

REPRESENTATIVE SEATON asked how many jobs would be provided from developing the Arctic National Wildlife Refuge.

MR. NAVARRE responded that the job studies done by Arctic Power over the years are speculative and somewhat based on the jobs that were created in other states by the development of Prudhoe Bay, but that up to 750,000 jobs would be created nationwide for manufacturing and direct jobs. In further response, he said that while he does not know the job specific numbers, Alaska would be one of the biggest beneficiaries of direct jobs and long-term jobs from the development of ANWR.

[2:14:53 PM](#)

REPRESENTATIVE GUTTENBERG referred to page 4, lines 7-11, and inquired whether Alaska has already lost the debate in regard to accepting no less than 90 percent of oil, gas, and mineral royalties from federal land as was promised at statehood.

MR. NAVARRE replied that there may be others better qualified to answer this question. He said he thinks that because it was part of Alaska's statehood compact there is a legal argument that Alaska should get the 90 percent. However, in terms of political reality, the benefits of developing ANWR will need to be shared with the rest of the people in the U.S. in order to garner support. He added that this is not to say he is advocating a 50-50 or other split, it is the political reality.

REPRESENTATIVE GUTTENBERG said that this is a fight Alaska should continue to have.

CO-CHAIR JOHNSON agreed.

[2:15:54 PM](#)

REPRESENTATIVE SEATON asked whether the revenue for alternative energy as proposed under HR 49 is based on a 50-50 split or total royalties.

MR. NAVARRE answered that he thinks it is based on a 50-50 split with the federal dollars going to the renewable energy funding.

[2:16:42 PM](#)

JIM CAMPBELL, Owner, Arctic Treks, stated that he has provided recreational guide service through the Arctic National Wildlife Refuge for 30 years. He has also worked in Prudhoe Bay and therefore has an intimate understanding of both sides, he said. The land will never be the same again if the refuge is developed. People come to the refuge to see the wild country

and wildlife and they utilize air services, hotels, and restaurants when they are in town. There is no comparison between the money that would be generated by oil versus tourism, he acknowledged, but development means there will never be a reversal of what is done to the land, it will be destroyed forever. There are many people within Alaska that do not agree with developing the refuge, he continued. The whole environment would be so much better if Alaska became a leader in renewable resources rather doing the same old thing of drilling. The state should take the first step in keeping this land wild forever. In response to Co-Chair Johnson, Mr. Campbell said he opposes the resolution.

CO-CHAIR JOHNSON closed public testimony.

[2:22:30 PM](#)

REPRESENTATIVE GUTTENBERG understood that a lot of seismic work was done previously and that one well was drilled and capped. He asked how the value of the lease sale would be estimated by industry without knowing what is in the ground.

KEVIN BANKS, Acting Director, Central Office, Division of Oil & Gas, Department of Natural Resources, explained that one way is by doing probabilistic estimates of recovering oil. Representative Millett's numbers are oil-in-place numbers and these are often expressed in a range of likelihood. In 2001 the U.S. Geological Survey estimated the economically recoverable resource in the refuge. Those numbers are smaller than the oil-in-place numbers, but that might be a place to start. Bidding will be determined by a statistical analysis of the expected value to the lessee, i.e. what are the chances that a certain amount of money will be returned to the lessee. The range for economically recoverable resources on the refuge is from 3 billion to 10.4 billion barrels of oil, he continued. Seismic work can occur without a lease sale in the area and this could be done ahead of time. He said if he was the federal government he would want that done so more people would have a better understanding of the potential and the bidding would be better informed and possibly higher.

[2:25:48 PM](#)

CO-CHAIR NEUMAN inquired as to what the current estimates are for recoverable natural gas.

MR. BANKS responded he does not have the gas estimates before him, but that Representative Millett was referring to the totals for gas in place.

CO-CHAIR NEUMAN asked whether the composition of the gas in the 1002 Area would be similar to that in Prudhoe Bay.

MR. BANKS said he expects the gas would be found together with the oil, so the answer is yes. Therefore, it is likely that methane and heavier liquids would be entrained in the gas.

CO-CHAIR JOHNSON commented that this is the value-added industry that Co-Chair Neuman talks about all the time.

CO-CHAIR NEUMAN agreed.

[2:28:39 PM](#)

REPRESENTATIVE GUTTENBERG moved Amendment 1, labeled 26-LS0400\A.1, Bullock, 2/23/09, which reads as follows [original punctuation provided]:

Page 4, following line 6:

Insert "**FURTHER RESOLVED** that the Alaska State Legislature urges the United States Congress to pass legislation requiring that a lease for the exploration, development, and production of oil and gas in the Arctic National Wildlife Refuge include a strong, clear, and enforceable duty of the lessee to explore, develop, and produce oil and gas resources that are subject to the lease; and be it"

CO-CHAIR JOHNSON objected for purposes of discussion.

REPRESENTATIVE GUTTENBERG said that in some ways the state has a dubious relationship with the industry as far as a timetable for getting the state's resources out of the ground. He would like to see Alaska urge the U.S. Congress to make sure that any leases do what Amendment 1 says - a duty to develop. However, this is not to say that the lessee would be required to get the resource out of the ground if conditions or economics do not warrant it; in this case, the lessee would go to Congress to explain its case.

[2:30:46 PM](#)

CO-CHAIR JOHNSON asked Mr. Banks to comment on Amendment 1.

MR. BANKS said this is a little beyond what he knows, but that he thinks the federal lease form that would apply here may be different than what has been seen elsewhere in Alaska. However, it is certainly possible that the federal government could make very explicit requirements for work commitments on these leases and perhaps even require performance bonds as there is nothing unusual about such a request going forward. The implied duty to produce that exists in an oil and gas lease would likely apply to federal leases just as it does to state leases. He said he therefore thinks Representative Guttenberg's proposal is workable. In further response, Mr. Banks said it is an implied duty to produce, not necessarily an explicit requirement of the state's leases, and this would be affected by the economics as mentioned by Representative Guttenberg.

[2:32:44 PM](#)

REPRESENTATIVE SEATON remarked that the reason the state is in court is because it is an implied duty. The lease terms and conditions in HR 49, Section 6, do not include a duty to produce or a duty not to warehouse. Something that is in state leases may or may not be in federal leases. He said he is unsure whether the language is right in Amendment 1, so perhaps the sponsor could work with the Department of Natural Resources to come up with suggestions for language that could be incorporated into Amendment 1 to give guidance to the federal government based on the problems Alaska has had in regard to the duty to produce.

[2:34:54 PM](#)

REPRESENTATIVE MILLETT pointed out that HJR 7 is focused only on opening the coastal plain. She expressed her concern that Amendment 1 could divert the focus to the differences between state and federal leasing terms and the lease terms can be addressed once the refuge is opened. She said she appreciates the amendment but thinks it distracts from the point of the resolution which is to open the refuge.

CO-CHAIR JOHNSON agreed. He said he likes the concept, is opposed to Amendment 1 until a legal opinion can be obtained, at which point it can be addressed on the floor.

[2:37:40 PM](#)

REPRESENTATIVE GUTTENBERG said he appreciates the comments, but added that if the state does not say something then the state does not mean it. He withdrew Amendment 1 with the understanding that more backup will be provided for the floor. He said Amendment 1 does not write lease language and the window to open the refuge will likely open and close too quickly to be able to get the amendment's language included.

CO-CHAIR NEUMAN agreed with the sponsor. He said a contract is written for each oil and gas field because the quantity and quality is unknown, and putting a duty to produce on everything could interfere with exploration.

[2:41:18 PM](#)

CO-CHAIR NEUMAN moved Amendment 2 on behalf of the sponsor:

Page 1, line 12, before "barrels":

Delete "10,000,000,000"

Insert "10,400,000,000"

There being no objection, Amendment 2 was passed.

[2:42:08 PM](#)

REPRESENTATIVE GUTTENBERG said he thinks the word "strive" on page 3, line 7, is not strong enough. If the state thinks the health of the Porcupine Caribou Herd is critical, then there should be some language. Therefore, language in this regard may be seen on the floor.

CO-CHAIR JOHNSON agreed that the state should do everything possible.

REPRESENTATIVE OLSON recalled spending several hours on this issue a few years ago in a previous version of this resolution.

CO-CHAIR NEUMAN moved to report the proposed CS for HJR 7, labeled 26-LS0400\R, Bullock, 2/6/09, as amended, out of committee with any individual recommendations and accompanying fiscal notes. There being no objection, CSHCR 7(RES) was reported out of the House Resources Standing Committee.

HJR 18-OPPOSING ANWR WILDERNESS DESIGNATION

[2:43:54 PM](#)

CO-CHAIR JOHNSON announced that the final order of business would be HOUSE JOINT RESOLUTION NO. 18, Urging the United States Congress to refrain from passing legislation that designates land in Area 1002 of the Arctic National Wildlife Refuge as wilderness.

CO-CHAIR NEUMAN moved that the committee adopt the proposed committee substitute (CS) for HJR 18, labeled 26-LS0403\R, Bullock, 2/17/09 ("Version R"), as the working draft.

CO-CHAIR JOHNSON objected so the sponsor could explain the differences between the CS and the original bill.

[2:44:27 PM](#)

REPRESENTATIVE CHARISSE MILLETT, Alaska State Legislature, sponsor of HJR 18, said the proposed CS makes language changes for the flow of the resolution: on page 1, lines 4-5, the language is updated to make it read easier; on page 1, line 7 the figure "10,000,000,000" is changed to "10,400,000,000"; on page 1, lines 10-11, the language "comprises only eight percent of the total area of the Arctic National Wildlife Refuge" was added; on page 2, the whereas on lines 1-5 was added; and on page 2, the whereas on lines 24-27 was added.

CO-CHAIR JOHNSON withdrew his objection. There being no further objection, Version R was before the committee.

[2:46:07 PM](#)

REPRESENTATIVE MILLETT paraphrased from the following written sponsor statement [original punctuation provided]:

House Joint Resolution 18 urges the United States Congress to reject any legislation seeking a wilderness designation for the 1002 Area of the Arctic National Wildlife Refuge.

Legislation has been introduced in Congress to do just that. The 1002 Area could be the largest untapped onshore oil prospect in the United States and that makes it both a national refuge and a strategic resource. The two are not incompatible.

Congress deliberately set aside the 1002 Area for future oil and gas exploration. Lawmakers at the time understood the day may come when those reserves will

be needed to fuel the economy and reduce the flow of imported oil into America.

Alaska needs new jobs to grow its economy and new revenue to fund basic services like education, public safety and transportation infrastructure. America needs a stable, safe and secure supply of energy to help the economy get back on its feet. ANWR can do all of that without harming the fragile arctic environment.

Locking up a two thousand acre area that makes up less than one percent of the refuge and holds an estimated 10,400,000,000 barrels of oil does not make sense for America's economy and national security.

[2:47:39 PM](#)

REPRESENTATIVE MILLETT said she thinks Alaska has a great track record of developing resources in a responsible way. This resolution is just as important as opening the Arctic National Wildlife Refuge. Wilderness designation would be final because there is no going back once that door is shut.

CO-CHAIR JOHNSON opened public testimony.

[2:49:02 PM](#)

PAMELA A. MILLER, Arctic Program Director, Northern Alaska Environmental Center, noted that a bill currently before the U.S. House of Representatives [HR 39], is called the Udall-Eisenhower Arctic Wilderness Act to acknowledge President Eisenhower's foresight in recognizing the value of the Arctic National Wildlife Refuge. To balance the area's designation as a refuge, 20 million acres on the North Slope were opened by then U.S. Secretary of the Interior Fred Seaton, she said. This acreage became the state lands that are now the oil fields of Prudhoe Bay. The coastal plain was part of the refuge and under HR 39 [the coastal plain] would be set aside from oil and gas development. This is an overlay over the refuge, she explained.

MS. MILLER pointed out that [federally designated] Wilderness in Alaska has special provisions that allow motorized travel, such as fixed-wing aircraft and snow machines. Subsistence hunting and fishing are currently allowed within the existing Wilderness of the Arctic National Wildlife Refuge. People can use snow machines for subsistence and this will not be changed because

subsistence is a purpose of that area. The oil potential is very small, she continued. The Energy Information Administration estimates that only 2.5 billion barrels of oil might be produced by 2030. The state has a lot more potential on other lands that are already open. [The 1002 Area] is the biological heart of the refuge, she said.

[2:52:59 PM](#)

REPRESENTATIVE TUCK asked what the main difference is between a Wilderness and a refuge.

MS. MILLER explained that designated Wilderness is an overlay over existing public lands. The refuge was established to protect the area's fish, wildlife, and recreation values and the purpose of the Alaska National Interest Lands Conservation Act (ANILCA) was to protect fish and wildlife populations, water quality and quantity, international treaty obligations, and subsistence. So, those purposes will always be there, she said. Wilderness is an overlay of protection and primarily protects against industrial oil and gas development and mining. The coastal plain is currently off limits to development as a result of ANILCA. In further response, Ms. Miller explained that only Congress can undo a refuge or put a refuge in place. The area that is now known as the Arctic National Wildlife Refuge was first set aside before statehood and before there was a national refuge system.

[2:54:59 PM](#)

CHRIS CANNON, said he would like to "carbon copy" his previous comments [on HJR 7]. He specified that wilderness is an important part of his choice to live in Alaska and is also an important part of his income as a seasonal wilderness rafting and mountaineering guide. In response to Co-Chair Johnson, Mr. Cannon said he does not work in [the 1002 Area], but he does work in other wilderness areas.

[2:56:05 PM](#)

JIM CAMPBELL, Owner, Arctic Treks, said he has personally taken hundreds of people into the Arctic National Wildlife Refuge over the past 30 years. Through the many guides with permits from the U.S. Fish & Wildlife Service, thousands of people have come to see the refuge and the draw for people coming to the refuge is wilderness. Wilderness and wildlife are the draw of tourism

for the whole state, but this will no longer happen in the 1002 Area if it is developed.

MR. CAMPBELL explained that development in the 1002 Area would shut off the movement of caribou. The 1002 Area is vital to the whole refuge itself, he said. Wilderness is open to hunting, fishing, and other activities. There is just no development in Wilderness and this would be his choice for the 1002 Area. If the 1002 Area is developed for oil it will become off limits and the rivers could no longer be floated to the coast, something he has done many times. He said he thinks one reason that the oil companies are interested in the 1002 Area is so they can control the coastline and set up the infrastructure to go all the way back to Prudhoe Bay with offshore development.

[2:58:38 PM](#)

JASON BRUNE, Executive Director, Resource Development Council, said that the 1002 Area of the Arctic National Wildlife Refuge was part of the agreed-upon compromise for passage of ANILCA. Without the 1002 Area, ANILCA would not have passed, so it was left to a future Congress. Nearly 20 percent of Alaska, 58 million acres, is already designated Wilderness and these are available for the tourists to see. The number of people coming to see wilderness is masked by the hundreds of thousands of jobs that could be formed if the 1002 Area is opened. He said he is a biologist, and the population of the Central Arctic Caribou Herd has increased 11 fold since development first started. While this may not happen in the 1002 Area, it is proof that the industry cares about responsible stewardship of the land as well as responsible development. The residents of Kaktovik support opening the Arctic National Wildlife Refuge, he related. He said he supports HJR 18.

[3:01:14 PM](#)

MIKE NAVARRE, Co-Chair, Board of Directors, Arctic Power, said he does not see why [the state] would not oppose a Wilderness area in the part of America and Alaska that has the highest hydrocarbon potential onshore in the U.S. This is not beneficial to Alaska or the U.S. in the short- or long-term. He encouraged the committee's support for opposing Wilderness.

CO-CHAIR JOHNSON closed public testimony.

[3:02:24 PM](#)

CO-CHAIR NEUMAN moved to report the proposed CS for HJR 18, labeled 26-LS0403\R, Bullock, 2/17/09, out of committee with any individual recommendations or accompanying fiscal notes. There being no objection, CSHCR 18(RES) was reported out of the House Resources Standing Committee.

REPRESENTATIVE GUTTENBERG noted that a preliminary report was recently released by the Petroleum Systems Integrity Office. It would therefore be timely for the committee to hear an overview from this agency, he said.

CO-CHAIR JOHNSON agreed.

[3:03:29 PM](#)

ADJOURNMENT

There being no further business before the committee, the House Resources Standing Committee meeting was adjourned at 3:03 p.m.