

Communication from Public

Name: Veronica Rodriguez

Date Submitted: 06/25/2019 05:30 PM

Council File No: 19-0688

Comments for Public Posting: My family and I stand strongly against automation. Automation is a threat to our communities livelihoods. I strongly encourage you to choose the people and businesses of this community that you represent over robots and corporate greed.

Communication from Public

Name: Lindsay Newman

Date Submitted: 06/25/2019 03:57 PM

Council File No: 19-0688

Comments for Public Posting: I am blessed to be the first female longshoreman of a 4 generation longshore family. My children, both girls, dream of following in my footsteps, the footsteps of their grandfather, great-grandfather and great-great-grandfather. But that is just us. We are just a small family who has lived in Los Angeles for 4 generations. San Pedro has been our home. We've worked and voted in this town, all for LA city. We are one of the thousands of families in this area that will be directly impacted by automation. We all live, eat, shop and play here. So many will not be able to afford to stay here if their jobs are taken by this. It will be a trickle down effect. Please, think of the bigger picture, not just the fiscal one.

Communication from Public

Name: Joe

Date Submitted: 06/25/2019 06:41 PM

Council File No: 19-0688

Comments for Public Posting: I am a Longshoremen for 35 years. A crane operator. I also have Real Estate Property. I was the youngest Navigator and Captain for Starkist Tuna working on the 100,000 ton tuna ships. I would be gone for 8 months and come back for a week or sometimes a month, to only head back out to sea. I have family members that have died out at sea. I was able to come home and stay with my family and support our lifestyle with the opportunity of a Longshoremen job at our Ports. I was able to continue to build my empire and contribute to society and our Real Estate in and around our local communities. Without this job I would have missed out on so much more of life and family. We must keep these jobs in our local communities to support our future generations and local businesses. Automation has no place in our town. I don't support it. It ruins families, it ruins jobs, it increases homelessness (which is already a plaguing issue, and with that comes violence), we need leaders that will stand up for the people instead of their pocketbooks. We need leaders who support American jobs. We need leaders who have ethics! Where has that gone to? It seems as though the Harbor Commissioners are out for their own personal problems to cover their own debts. We need dedicated, honest, loyal leaders to get the job done>>> ENOUGH WITH THE GREED! Please consider the comments being posted on here and realize this is not a small issue. This will have detrimental impacts on society and our local communities and businesses. Thank you.

Communication from Public

Name: Mario Parra

Date Submitted: 06/25/2019 05:47 PM

Council File No: 19-0688

Comments for Public Posting: I, Mario, am writing in support of the ILWU. We believe full automation of any terminal is detrimental to many hardworking families, local real estate, our communities and our economy. It will cause a ripple effect throughout our communities that are already plagued by unemployment and homelessness. Our many small businesses depend greatly on the workers of the ILWU. We want to urge that the company use HUMAN OPERATING EQUIPMENT.

Communication from Public

Name: A. Miller

Date Submitted: 06/25/2019 01:38 PM

Council File No: 19-0688

Comments for Public Posting: I was born in Los Angeles, i am a voter, home owner, and tax payer. I strongly encourage anyone charged with representing my interests to deny all automation projects, our community needs to maintain its human workforce! Thank you.

Communication from Public

Name: Khalif Patel

Date Submitted: 06/25/2019 02:00 PM

Council File No: 19-0688

Comments for Public Posting: I am a casual worker employed by the PMA with ILWU, I stand by my fellow Brothers and sisters against this act of automation in the harbor , Our communities will be heavily impacted due to the 80% of income going back into them I would like you to know that Robert did not pay tax our communities will be heavily impacted due to the 80% of income going back into them I would like you to know that Robots do not pay taxes, longshore jobs have been around since trade it self embarked , taking upon this act will diminish hundreds and hundreds of jobs down in our harbor , me and my sisters and brothers dad Stand shoulder and shoulder, Will be heavily impacted by the loss of work , please take in consideration that this labor job has been around for decades bringing in automation will literally wipe out longshore work as we know, and in doing so decrease the value in our community due to no money being brought back into it, we all have families that depend on us and with replacing this with automation will be devastating financially , please take all this into consideration , Thank you for your time K, Patel

Communication from Public

Name: John strohm

Date Submitted: 06/25/2019 07:23 AM

Council File No: 19-0688

Comments for Public Posting: I am a 64 year old "newly" registered longshoreman (ID)
PLEASE PLEASE PLEASE folks like me and age have made so
many gut wrenching sacrifices to become registered don't let
foreign companies come to our shores and destroy these jobs for
their profit,please prevent the South bay from becoming Detroit.
Respectfully yours,John Strohm

Communication from Public

Name:

Date Submitted: 06/25/2019 07:01 AM

Council File No: 19-0688

Comments for Public Posting: Please do the greater good. This will effect family and probably more. Thank you for your service. God bless.

Communication from Public

Name: A & D MacDavid

Date Submitted: 06/26/2019 08:29 AM

Council File No: 19-0688

Comments for Public Posting: Our family opposes automation on port terminals in the Port of L
A Due to the potential economic impact loss of jobs into fiscal
impact on small businesses including an increase in homelessness
the move to automation could significantly hurt the local
economy.

Communication from Public

Name:

Date Submitted: 06/26/2019 08:33 AM

Council File No: 19-0688

Comments for Public Posting: Our family opposes automation on port terminals in the Port of LA due to the potential economic impact of loss of jobs and the fiscal impact on small businesses including an increase in homelessness if the move to automation occurs which could significantly hurt the local economy.

Communication from Public

Name: Ruth Simon

Date Submitted: 06/26/2019 07:52 AM

Council File No: 19-0688

Comments for Public Posting: I am a member of the San Pedro community and a Casual Longshoreman. May I add a thought to the situation? I am sure by now just about any job has the potential to be automated. But has anyone stopped to ask if it SHOULD? I have been reading on the subject. Researchers have said at the rate Automation is going, the Working Class will be gone within 10 years. By their sheer numbers they are the backbone of the Economy. With at least million people in the US 100 Working Class, one dollar of their buying power means \$100 million dollars back into the economy. Automation takes their buying power away. With the resulting economic devastation of our community and future communities around our nation suffering from rampant Automation, who is going to buy the products and services the Automated companies are producing? Those companies are shooting themselves in the foot. They, especially the foreign owned companies, will then take their money and run. Automation needs to be controlled now, for the greater good, and it starts with you! You do not have to vote for anything that will truly devastate your community and your constituents. You are voting for the Greater Good. There is an alternative to the non human Automation in this case. Maersk, and all the shippers at the Port of Los Angeles can use human driven electric vehicles. Green problem solved. Community protected. That is what should be mandated for the Waterfront. It saves the Environment and it saves the Community. And it is a tremendously big step to saving the future of our Country. There is no 'Narrow Scope' here. There is only the Big Picture. Thank you for your time and consideration.

Communication from Public

Name: Reina Tarango

Date Submitted: 06/26/2019 07:58 AM

Council File No: 19-0688

Comments for Public Posting: I grew up in San Pedro and have watched it go through the changes after job losses with the Canneries, Bethlehem Steel, Todd Shipyard. Thousands of people forced to move unable to afford to support their families and this change has taken 40 years for this town to recoupe into the beautiful city it is today. The port automation issue of jobs lost will be on a much larger scale with thousands having the affecting business, schools, tax revenue, humans and wild life birds and seals will die and be riddled with cancer from the 5G that will have to be installed for WiFi the radiation that these will put out will devastating. I am asking that this permit for port automation be denied on all levels.

Communication from Public

Name: Cpl Corral

Date Submitted: 06/26/2019 06:20 AM

Council File No: 19-0688

Comments for Public Posting: To City Council: My name is Cpl. Corral, Louis, I'm a Phineas Banning High Alumni Class of 89'. I'm all for clean air in the area, but to sabotage the middle class here will be devastated for all the shops, hotels, and surrounding economy. My station was Long Beach Air Naval where Hanjin is which is now MSC. That dock employed a lot of people, and now that its a shipping container yard it employs even more people of the middle class. The housing market in San Pedro, Wilmington, Harbor City, and even parts of surrounding areas. Residents are able to afford into more nicer and respectable areas of the Los Angeles area. In my opinion if you are to let this permit go through, all of the above that i mentioned will be no more. The people of the Harbor Area bring in revenue, the robots that the harbor commissioners are willing to let in are not going to be shopping, paying taxes or even vote. There are other means for clean air, electric vehicles. As it is the Wilmington area usually gets blacked out when Tra-pac uses the robots that takes up most of the electricity. If you can find it in your heart to think of the residents in the area and the shops, hotels, ports o' call. How much revenue would be lost. Maersk will only pay so much to rent the dock. Thank You for your time in reading this. God Bless You Thank You, Cpl Corral

Communication from Public

Name: George Ivcevic

Date Submitted: 06/26/2019 03:33 AM

Council File No: 19-0688

Comments for Public Posting: Council Members of Los Angeles, I am writing to you today as a lifelong and 2nd generation resident of San Pedro. My Croatian roots and culture run deep throughout this LA Harbor. Many of my family members migrated here from the small island of Vis, as did the owner of Starkist Tuna factory on Terminal Island, which at one point was the largest tuna cannery in the world. Several other family members worked at Todd's shipyard, which at its peak in the 80s had 5000+ workers and multibillion dollar Navy contracts. As those companies closed we continued to work in the LA Harbor and transitioned into the Longshore industry. As of today the ILWU has a workforce of 14,426 and Mayor Garcetti regularly says that 1 in 9 jobs in Southern California are directly related to the port. My neighbor to left, to the right, and across the street all work on the waterfront and many of us in San Pedro can say the same thing. The Coastal Development 18-25 Permit that we are discussing can be detrimental to this harbor community. The original application was so extremely vague, many parts were left intentionally blank, and I am very shocked it narrowly passed. Over 2000 concerned community members and business owners have filled our small streets for every step of this process. An alternative cruise terminal location has been needed to try to accommodate all of the anxious citizens and employees. Many of us clearly see this as a Level II permit as it requires impact reviews and studies. The implementation of their new 5G Kalmar equipment is alarming, while seeing so many scientists and cities around the world creating backlash and trying to ban this technology for health reasons. Overall, this has been a difficult process to watch APM Maersk and PMA representatives stutter, mumble and recklessly be dishonest to the Harbor Commissioners to sway their decision. Last year Maersk had a revenue of \$39 Billion and our hard work has helped them break records year after year. The Port of LA has been the busiest port in the nation for the last 19 years in a row and the cost of our labor force is approximately 1%. Now the gratitude that they are showing us is that they want to completely eliminate our workforce. Furthermore, they are trying to form alliances with other terminals to speed up the automation process and this would drastically affect our community. Studies and reports prove that our local ILWU workforce is twice as productive as automation. The

McKinsey survey indicates "that while operating expenses decline, so does productivity, and the returns on invested capital are currently lower than the industry norm." Having electric vehicles, that are manned, will maintain terminal efficiency and be in compliance with the Clean Air Action Plan. The Port Master plan requires efficient use of space and these machines only stack containers 3 high. While other machines and operations in the Harbor stack containers up to 6 high. As container TEU volumes double in years to come this will be a major problem. The ILWU recently signed a 3yr contract extension in good faith to allow cargo to continue to flow smoothly. They are returned with APM Maersk trying to swiftly automate Pier 400 while not communicating in good faith with its employees. Exactly 2 years ago a cyber attack cost APM Maersk \$200M to \$300M and forced the terminal to close for days. Earlier this year a container fell over at LBCT, an automated terminal in Long Beach, and the entire terminal had to cease operations. ILWU labor would have been able to simply work around it and problem solve on the fly. It is one thing to automate a small terminal that is known to have 1 ship a week, versus the biggest terminal in the nation that regularly has 3-4 ships working simultaneously. In conclusion, I please ask you veto this Harbor Board of Commissioners decision. Please support our 15th District Councilman Joe Buscaino, former Representative Janice Hann, and a long list of Politicians, business owners, and citizens. Thank you for your time and consideration on this matter. Sincerely, George Ivcevic

Communication from Public

Name: Matthew Garland

Date Submitted: 06/26/2019 07:08 AM

Council File No: 19-0688

Comments for Public Posting: Please veto the decision of the BoHC to approve the level 1 permit 18-25 APM terminals. The automation, and subsequent job loss to artificial intelligence, that will result from this permit are NOT consistent with a level 1 permit. To be clear, the community impacts of job loss of this scale will be a negative force on a harbor community already struggling with unprecedented socio-economic issues associated with homelessness, and rising living costs. For every one (1) longshore job, 7 to 8 local jobs are indirectly supported in the local economy. The economic impact of job loss at this scale will be devastating to the harbor area community. The public benefits of approving this permit for A.I. job replacement is non-existent.

Alexander Hall, President
Maria Couch, Vice President
Jane Castillo, Secretary
Matt Garland, Treasurer



A City of Los Angeles
Certified Neighborhood
Council, Certified 2002

February 20, 2019

Port of Los Angeles

Attn: Board of Harbor Commissioners

Re: CDP No. 18-25

APM Terminals – Landside Infrastructure to Operate Battery Electric Powered Equipment

The Central San Pedro adopted a resolution at a February Special meeting regarding CDP No. 18-25 APM Terminals—Landside Infrastructure as follows:

Be It Resolved, that the Central San Pedro Neighborhood Council supports the recommendation that the Harbor Department conduct a more detailed analysis on port automation's potential impacts on the economy. We urge the City of Los Angeles, specifically the Mayor's Office and the Harbor Department to:

1. *Conduct a detailed analysis on the impacts of port automation on the Los Angeles economy before granting any permits that include port automation;*
2. *Develop and implement policies and legislation to provide for employment in the event of job loss or unemployment due to automation.*
3. *Conduct thorough outreach efforts to educate the people on the economic effects of port automation;*
4. *Accelerate and expand workforce development to prepare and transition workers to adapt to new technologies and employment opportunities in the Los Angeles Harbor area;*
5. *Coordinate workforce development efforts with harbor area colleges and unions;*
6. *Amend the Clean Air Action Plan to make it clear that port automation is not required to create a zero emission port.*

Sincerely,

A handwritten signature in blue ink that reads "Alexander Hall".

Alexander Hall
Board Member and President
On behalf of the Central San Pedro Neighborhood Council

cc: Councilman Joe Buscaino, NW San Pedro NC, Coastal San Pedro NC

Communication from Public

Name:

Date Submitted: 06/26/2019 04:59 AM

Council File No: 19-0688

Comments for Public Posting: No to automating.

Communication from Public

Name: Brian Brandt

Date Submitted: 06/26/2019 02:55 AM

Council File No: 19-0688

Comments for Public Posting: I lived in Michigan for awhile in the early 90s and I've seen whole areas economically decimated by the jobs the auto industry cut. It would be one thing if we were getting more efficient with automation, but humans move more loads and can be just as environmentally friendly. Wilmington and Pedro are ALREADY not the nicest of places, but automating the port would suck the life-blood out of these cities. And for the profits to go where? Overseas? To grease politicians' hands to allow it to happen? The streets around the harbour and the surrounding cities will be unlivable with poverty and violence so I hope you live in a nice gated community with someone to get you groceries, because it'll be Michigan x 1,000 out here.

Communication from Public

Name: Mark calderon
Date Submitted: 06/25/2019 09:28 PM
Council File No: 19-0688
Comments for Public Posting: No on automation!!

Communication from Public

Name: Brandi
Date Submitted: 06/26/2019 01:22 AM
Council File No: 19-0688
Comments for Public Posting: Say no to automation!

Communication from Public

Name:

Date Submitted: 06/25/2019 09:05 PM

Council File No: 19-0688

Comments for Public Posting: No to automation

Communication from Public

Name:

Date Submitted: 06/25/2019 09:05 PM

Council File No: 19-0688

Comments for Public Posting: No to automation

Communication from Public

Name:

Date Submitted: 06/25/2019 09:14 PM

Council File No: 19-0688

Comments for Public Posting: No to automation

Communication from Public

Name: Patrick Blowers
Date Submitted: 06/25/2019 08:04 PM
Council File No: 19-0688
Comments for Public Posting: Automating the port puts people out of work.

Communication from Public

Name: Zachery Moore

Date Submitted: 06/25/2019 08:10 PM

Council File No: 19-0688

Comments for Public Posting: My Grandfather works at pier 400. He supports everyone in his house hold and has for years. If Automation takes place and he is found invaluable, there is clear and utter despair in the future for my family. Please do not take away the only foundation his mother and my grandmother have for existence. They are too old to work and my Grandfather is the only one left with the income to save them from absolute poverty. Thank you for your time
-Zachery Moore

Communication from Public

Name: Cabel Parker

Date Submitted: 06/25/2019 08:32 PM

Council File No: 19-0688

Comments for Public Posting: Council Members of Los Angeles, I write to you today as a concerned resident of the community of San Pedro and as a Casual Longshoreman in the Ports of Los Angeles and Long Beach. While I understand the desire for the Port of LA to remain competitive nationally, the desire to automate the facility at Pier 400 only serves one purpose and that is to benefit the bottom line of APM. Many reports have shown that automation does not show any sign of increasing efficiency over a human workforce nor does it allow for an increase in overall capacity. With the POLA stating several months of record container throughout, maximizing those two items alone should be the main driver for any change to a terminal's operation. As a Casual Longshoreman, my opportunity to obtain full time status within the ILWU is directly related to the amount of work available. Any decrease in work due to an elimination of human jobs affects my ability for full time status and affects the opportunity for me and my family to contribute to the local economy. While I understand that a handful of unemployed Casuals may not have a lasting impact on the local economy the elimination of thousands of well paid middle class workers will. I strongly urge the City Council of Los Angeles to veto the denial of the appeal of CDP 18-25 and conduct a full financial and environmental impact report regarding the effects of Automation and implementation of 5g cellular technology on the surrounding communities of the POLA. More information is needed to fully understand the detriment the approval of this permit will have on our communities. Thank You, Cabel Parker Resident of San Pedro

Communication from Public

Name: Ed Martinez

Date Submitted: 06/25/2019 08:54 PM

Council File No: 19-0688

Comments for Public Posting: I am against the automation of pier 400.

Communication from Public

Name: Marcel Nagy

Date Submitted: 06/26/2019 03:58 PM

Council File No: 19-0688

Comments for Public Posting: I am a local business owner in San Pedro, and would like to address some concerns I have about upcoming automation at the port of Los Angeles. I understand that progress is inevitable and I support efforts at a clean port and making operations safer and more efficient. I am very concerned about potential health effects in our community with adapting 5G, which is controversial. More importantly, our town thrives because of port jobs. Neither I, nor anyone in my family works there, but neighbors, friends, colleagues, and businesses will all be affected in huge ways. If there are mass layoffs, the local economy will be devastated. Some great efforts by the city have improved the downtown areas and we're moving in the right direction, in spite of very high housing costs, and a large homeless population. It is short-sighted of the city of LA to allow a huge loss of jobs without providing alternative training for green jobs. San Pedro always seems to be at the bottom of the list for its fair share of port and city funds for improvement projects. We are a city with a long history in creating a vital world port. Please consider very carefully the impact that automation will have, and I urge you to phase any changes in that will protect jobs, and the environmentally and health of our community. We don't need fire closures and loss of homes and businesses that will create a much larger homeless population. Please be aware of all consequences of your decisions. Thank you for making intelligent and well-thought out choices that will help San Pedro thrive for many generations more.

Communication from Public

Name: County of Los Angeles
Date Submitted: 06/26/2019 04:09 PM
Council File No: 19-0688
Comments for Public Posting:



COUNTY OF LOS ANGELES BOARD OF SUPERVISORS

KENNETH HAHN HALL OF ADMINISTRATION
500 WEST TEMPLE STREET
LOS ANGELES, CALIFORNIA 90012

June 26, 2019

MEMBERS OF THE BOARD

HILDA L. SOLIS

MARK RIDLEY-THOMAS

SHEILA KUEHL

JANICE HAHN

KATHRYN BARGER

The Honorable Mayor Eric Garcetti
City of Los Angeles
200 North Spring Street, Room No. 303
Los Angeles, CA 90012

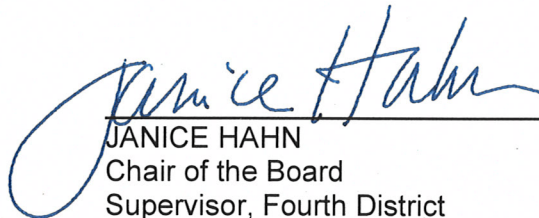
Dear Mayor Garcetti:

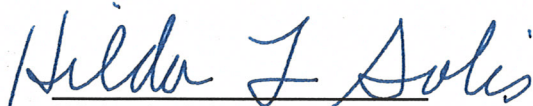
We are writing to express our support for the efforts of the International Longshore and Warehouse Union Local 13 (ILWU 13) to protect local jobs. ILWU 13 has raised serious concerns over the future of automation at the Port of Los Angeles (Port) and the potential impact on its workforce and the surrounding community.

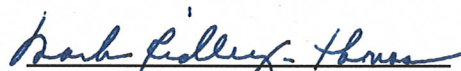
Recently, the Los Angeles Board of Harbor Commissioners approved a permit to introduce driverless electric cargo handlers inside its facilities. This action is expected to result in significant job losses. Technological advancements should not come at the cost of good paying union jobs and detrimental impacts to our economy.

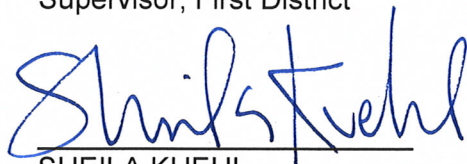
The County of Los Angeles, Board of Supervisors gives its unanimous support to the efforts of the ILWU 13 to protect local jobs and the vitality of the surrounding community. We urge you to join our efforts to protect good paying jobs and the economic vitality of the communities surrounding the Port.

Sincerely,


JANICE HAHN
Chair of the Board
Supervisor, Fourth District


HILDA L. SOLIS
Supervisor, First District


MARK RIDLEY-THOMAS
Supervisor, Second District


SHEILA KUEHL
Supervisor, Third District


KATHRYN BARGER
Supervisor, Fifth District

c: Los Angeles City Council Members

Communication from Public

Name: County of Los Angeles
Date Submitted: 06/26/2019 04:11 PM
Council File No: 19-0688
Comments for Public Posting:



COUNTY OF LOS ANGELES BOARD OF SUPERVISORS

KENNETH HAHN HALL OF ADMINISTRATION
500 WEST TEMPLE STREET
LOS ANGELES, CALIFORNIA 90012

MEMBERS OF THE BOARD

HILDA L. SOLIS

MARK RIDLEY-THOMAS

SHEILA KUEHL

JANICE HAHN

KATHRYN BARGER

June 26, 2019

The Honorable City Council President, Herb J. Wesson Jr.
Los Angeles City Council
200 North Spring Street, Room No. 430
Los Angeles, CA 90012

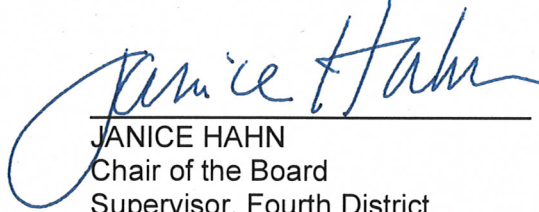
Dear City Council President Wesson:


We are writing to express our support for the efforts of the International Longshore and Warehouse Union Local 13 (ILWU 13) to protect local jobs. ILWU 13 has raised serious concerns over the future of automation at the Port of Los Angeles (Port) and the potential impact on its workforce and the surrounding community.


Recently, the Los Angeles Board of Harbor Commissioners approved a permit to introduce driverless electric cargo handlers inside its facilities. This action is expected to result in significant job losses. Technological advancements should not come at the cost of good paying union jobs and detrimental impacts to our economy.

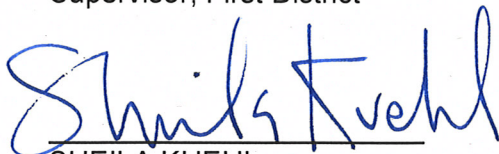
The County of Los Angeles, Board of Supervisors gives its unanimous support to the efforts of the ILWU 13 to protect local jobs and the vitality of the surrounding community. We urge you to join our efforts to protect good paying jobs and the economic vitality of the communities surrounding the Port.

Sincerely,


JANICE HAHN
Chair of the Board
Supervisor, Fourth District


HILDA L. SOLIS
Supervisor, First District


MARK RIDLEY-THOMAS
Supervisor, Second District


SHEILA KUEHL
Supervisor, Third District


KATHRYN BARGER
Supervisor, Fifth District

c: Los Angeles City Mayor Eric Garcetti

Communication from Public

Name: Steve Pekich

Date Submitted: 06/26/2019 02:54 PM

Council File No: 19-0688

Comments for Public Posting: A foreign company is trying to implement robotics on American soil and take good paying union jobs away. How can we as Americans let this happen it will bring massive job loss to a thriving port town and more homeless to our streets Please as Americans do not let this happen Thank You Steve Pekich
Revenue

Communication from Public

Name: Anthony Baccari

Date Submitted: 06/26/2019 12:52 PM

Council File No: 19-0688

Comments for Public Posting: I am completely against APM automation based on the pure cost of jobs to the surrounding area not just ILWU but also the many that are employed outside the union such as clerical supervision and the branches of each. All in the name of power as automation has not shown an increase in productivity

Communication from Public

Name: Eddie Arciaga

Date Submitted: 06/26/2019 01:38 PM

Council File No: 19-0688

Comments for Public Posting: I am against automation and I stand with ILWU. This is bad for not only Longshoremen but to the economy. That area and neighboring cities will be affected if not now in the near future. It will trickle down.. If this event will pass everyone will follow. Please hear our voices and our pleas and don't let this foreign company take away their(my) job. It will hurt the future of our community and families.

Communication from Public

Name: Robert Enciso Jr

Date Submitted: 06/26/2019 01:46 PM

Council File No: 19-0688

Comments for Public Posting: Dear City Council Members, I realize that some of you are far removed from the Port of Los Angeles, but I must implore that you please carefully review the permit for automation at APM Terminals. Yes, they are following the just requirements for permit approval, however, many of their so called automation technologies are not to the advantage of the longshoreman and citizens of the surrounding Los Angeles affiliated cities. First, 5G is not a proven safe new technology. Studies have shown to the contrary. APM's statement of theirs is the safe technology is not correct. 5G is 5G technology. Second, They are posting themselves as a green hybrid dock. This is not true. Has APM specified that their hybrid straddle carriers that are supposedly running off of battery power, will have a diesel powered generator to recharge the batteries on the chassis? Clean huh? And last, please consider the substantial economic impact that the port cities will have with the elimination of longshore jobs. These are families that live and support local businesses in the cities of San Pedro, Lomita, Wilmington, Carson, Gardena, etc... Loss of income will have a detrimental affect on the current rebuilding processes in these cities. Thank you for your time and due diligence into doing what is morally correct. Sincerely, Robert Enciso Jr.

Communication from Public

Name: Danielle Sandoval
Date Submitted: 06/26/2019 02:12 PM
Council File No: 19-0688
Comments for Public Posting:



Harbor City Neighborhood Council

February 21, 2019

Danielle Sandoval
President

Grant Reed
Vice President

Mike Etter
Treasurer

Sydney Baune
Secretary

Port of Los Angeles
Attn: Board of Harbor Commissioners

Re: CDP No. 18-25
APM Terminals – Landside Infrastructure to Operate Battery Electric
Powered Equipment

The Harbor City Neighborhood Council adopted a resolution at its February meeting regarding CDP No. 18-25 APM Terminals—Landside Infrastructure as follows:

RESOLUTION

WHERE AS, the November 2017 Clean Air Action Plan (CAAP) Economic and Workforce for the Clean Air Action Plan Update indicates the Long Beach Port and the Los Angeles Port supports 1 million jobs in California and 2.8 million jobs nationwide which include longshore labor, freight forwarding and logistics, and other transportation-related sectors;

WHERE AS, the update briefly discussed the possibility of the direct effects of the CAAP implementation would not be expected to have significant immediate job impacts; however, meaningful cargo diversion resulting from the increased CAAP related costs would be expected to have a negative impact on those jobs. Furthermore, direct jobs such as longshoreman, truckers, and warehouse and logistics operators would likely be directly impacted by cargo loss and indirectly, companies supporting the goods movement industry (fuel suppliers, maintenance, and financial firms among others) would be impacted;

WHERE AS, the spending and consumption of employees in the Port and transportation support jobs and business activity in all sectors of the economy, which would also be at risk from lost activity at the Ports. The document further states that although it raised economic and workforce considerations for decision-makers and stakeholders as they evaluate the potential impacts of implementing the CAAP. It was not intended to be a comprehensive study or quantified analysis and recommends for the Ports to have a better understanding of the impacts, the Ports must conduct a more detailed analysis once there is more information about how certain measures will be implemented, how they may be financed, and what the overall costs will ultimately be.

WHERE AS, the CAAP Implementation Third Quarter 2018 Progress Report indicates it's in the early stages of Feasibility Assessment for Terminal Equipment and discussions were underway with the marine terminal operators. In September 2018, Early Deployment and Demonstrations projects, including electric



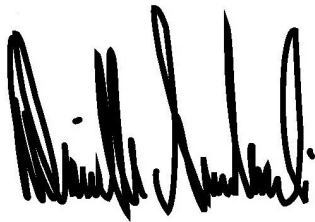
Harbor City Neighborhood Council
P.O. Box 325, Harbor City, CA 90710-0921
(310) 918-8650 - www.harborcitync.com

and fuel cell yard hostlers, electric top handlers, and electric rubber-tired gantry cranes, as well as innovative approaches to charging infrastructure and demonstration of supporting electrical infrastructure including microgrid controls with distributed generation and battery storage.

WHERE AS, the Harbor Commission placed on their January 24th, 2018 agenda and pulled the Item for consideration and approval of a Level 1 Coastal Development Permit 18-25: APM Terminals-Landside Infrastructure to Operate Battery-Electric Powered Equipment.

Be It Resolved, that the Harbor City Neighborhood Council supports the recommendation for the Ports to conduct a more detailed analysis on the direct negative impact of the economy and further recommend that the Mayors Budget team assist and conduct its own analysis of the negative impacts on the City's Economy. We urge that the Harbor Commission table the Level 1 Coastal Development Permit 18-25 until a resolution has been secured between the Terminal Operator and with the International Longshore and Warehouse Union and until the CAAP 2019 Implementation Second Quarter Progress Report has been generated to fully evaluate the direct impact on jobs is thoroughly addressed. We understand that new technologies and equipment may require a different skill set. Therefore, we support workforce development initiatives and the partnerships with local colleges and trade unions ensuring workers are equipped to manage the transition to new technologies however, with no job loss and at the same pay scales and higher. Investing in our workforce rather than in automation secures our economic sustainability.

Thank you.



Danielle Sandoval
President
On behalf of the Harbor City Neighborhood Council



Harbor City Neighborhood Council
P.O. Box 325, Harbor City, CA 90710-0921
(310) 918-8650 - www.harborcitync.com

Communication from Public

Name:

Date Submitted: 06/26/2019 11:06 AM

Council File No: 19-0688

Comments for Public Posting: The automation of our port will destroy our local economy including the lives and welfare of not only the ILWU workers and their families, but also the local businesses, property values, and the tax base that supports all county, city, state and federal services. This port community, will resemble in its own way those of the rust belt, that we increasingly see on the news and are desperate for solutions from devastation caused by corporate greed, and the wholesale exodus of our industries and know-how to low wage countries. The longshore industry is one of the few remaining stables for our nation's middle class, the bedrock for a stable democracy, and one that has supported a thriving capitalistic economy in our country. As a lifetime resident , with children who depend upon their livelihood from the port, as well as providing for our grandchildren, I implore the Los Angeles City Council to take the logical and necessary action to prevent the destruction of one of its most valued assets, the local port community and its industrial base.

Communication from Public

Name:

Date Submitted: 06/26/2019 09:50 PM

Council File No: 19-0688

Comments for Public Posting: Automation can create problems for small business owners like myself. Please reconsider.

Communication from Public

Name: Eric Roberson
Date Submitted: 06/26/2019 09:56 PM
Council File No: 19-0688
Comments for Public Posting:

Communication from Public

Name: Raquel Rodriguez

Date Submitted: 06/26/2019 10:24 PM

Council File No: 19-0688

Comments for Public Posting: I, Raquel Rodriguez , am writing in support of the ILWU. We believe full automation of any terminal is detrimental to many hardworking families, local real estate, our communities and our economy. It will cause a ripple effect throughout our communities that are already plagued by unemployment and homelessness. Our many small businesses depend greatly on the workers of the ILWU. We want to urge that the company use HUMAN OPERATING EQUIPMENT.

Communication from Public

Name: Shelley y rogersshelleyy@gmail.com
Date Submitted: 06/26/2019 04:41 PM
Council File No: 19-0688
Comments for Public Posting: Automation hurts our longshor communiy.people lose there homes won't be able to feed there family or pay there bills.longshor people work hard everyday automation can't make split dissions

Communication from Public

Name: Remo P. Hunt

Date Submitted: 06/26/2019 04:52 PM

Council File No: 19-0688

Comments for Public Posting: Remo P. Hunt ILWU Local 13 Registration #134658 June 26, 2019 John A. White Legislative Assistant Transportation Committee Trade, Travel, and Tourism Committee (213) 978-1072 Dear John White, I'm writing to express my concern with the Harbor Commissions' vote to allow APM Terminals modernize Pier 400 with automated machinery and technologies. By implementing automated technologies on Pier 400, the job loss suffered by Locals 13, 63, 94, and 26 will be catastrophic. Maersk claims there is loss of market share to competing ports, yet, both Ports (LA/LB) have been reporting record breaking cargo numbers each month for the past 4 years. There are also Maersk ships serviced weekly at TTI terminals in Long Beach - even when there is no ship in port at Pier 400. The claim of congestion is an issue we've all had to deal with on a daily basis, but the ILWU is not responsible for that. Bigger ships berthed in San Pedro bay have more containers that need to be handled which mean more trucks to pick them up and more labor to handle those volumes. Major construction on the Henry Ford and Desmond bridges have added to the congestion. I feel the reasons to implement non-human capital investment at Pier 400 have been inaccurate. Those reasons have influenced the Harbor Commission to favor the permit to move forward. I am urging city council and your committee to take a hard look into how this may change the future of our port complex and how these changes may impact the local communities that surround the Ports of Los Angeles and Long Beach. Respectfully, Remo P. Hunt remohunt@me.com 714-987-9148

Remo P. Hunt
ILWU Local 13
Registration #134658

June 26, 2019

John A. White
Legislative Assistant
Transportation Committee
Trade, Travel, and Tourism Committee (213) 978-1072

Dear John White,

I'm writing to express my concern with the Harbor Commissions' vote to allow APM Terminals modernize Pier 400 with automated machinery and technologies.

By implementing automated technologies on Pier 400, the job loss suffered by Locals 13, 63, 94, and 26 will be catastrophic. Maersk claims there is loss of market share to competing ports, yet, both Ports (LA/LB) have been reporting record breaking cargo numbers each month for the past 4 years. There are also Maersk ships serviced weekly at TTI terminals in Long Beach - even when there is no ship in port at Pier 400. The claim of congestion is an issue we've all had to deal with on a daily basis, but the ILWU is not responsible for that. Bigger ships berthed in San Pedro bay have more containers that need to be handled which mean more trucks to pick them up and more labor to handle those volumes. Major construction on the Henry Ford and Desmond bridges have added to the congestion.

I feel the reasons to implement non-human capital investment at Pier 400 have been inaccurate. Those reasons have influenced the Harbor Commission to favor the permit to move forward.

I am urging city council and your committee to take a hard look into how this may change the future of our port complex and how these changes may impact the local communities that surround the Ports of Los Angeles and Long Beach.

Respectfully,

Remo P. Hunt
remohunt@me.com
714-987-9148

Communication from Public

Name: D Holman

Date Submitted: 06/26/2019 05:03 PM

Council File No: 19-0688

Comments for Public Posting: Do not allow a foreign corporation to make billions of dollars at the expense of the health of our community. If this foreign corporation prevails, the damage to our community will be irreversible

Communication from Public

Name: Michael Koth

Date Submitted: 06/26/2019 06:31 PM

Council File No: 19-0688

Comments for Public Posting: San Pedro is growing but is still in a very fragile state for local small business. Losing jobs in the Harbor area will be detrimental to the continued growth of Downtown San Pedro. I reject the need for automation and stand behind the ILWU in opposing this change. Keep the jobs and keep San Pedro growing.

Communication from Public

Name: Nicole G.

Date Submitted: 06/26/2019 07:19 PM

Council File No: 19-0688

Comments for Public Posting: Say No to Automation, say no to loss of jobs.

Communication from Public

Name: Anthony Gomez

Date Submitted: 06/26/2019 07:27 PM

Council File No: 19-0688

Comments for Public Posting: The automation will turn San Pedro into Detroit. We have lost the shipyards, fishing, and the canneries.. please reconsider and save port jobs!

Communication from Public

Name:

Date Submitted: 06/26/2019 07:28 PM

Council File No: 19-0688

Comments for Public Posting:

Communication from Public

Name:

Date Submitted: 06/26/2019 03:36 PM

Council File No: 19-0688

Comments for Public Posting: This Automation at the ports of Los Angeles can and will effect every family and business in Southern California and the surrounding areas. The City's Leaders need to Vote for the ILWU, it's the right thing to do!!! We do not need more Homeless Families in Southern California!!! There are too many already!!! The Leaders of this State, should and can STOP this Automation at the Los Angeles Ports

Communication from Public

Name: Justin Ruelas

Date Submitted: 06/26/2019 08:07 PM

Council File No: 19-0688

Comments for Public Posting: Hello members of the council, my name is Justin Ruelas and I have been a Casual for close to 15 years now. I started at the young age of 24 and now I am 38. I still dream of the day of walking in my fathers shoes as a longshoreman. He passed away last December at the age of 66 years young. He talked and dreamed of the day of us being able to work together son and father side by side but he passed away before we could make that happen. If he was alive today he would be writing to you as well, explaining you to you how important this job has been for him and his family, and how much it has provided for so many. I too would like to provide for my family and my community. But if these robots come in and take our jobs away, this will have such a major negative impact on all of Southbay. Please think very hard of what you're considering, I pray you make the right decision that will save thousands of families now and thousands down the road. God bless the ILWU. Thank you

Communication from Public

Name: Ira Moreland

Date Submitted: 06/26/2019 08:22 PM

Council File No: 19-0688

Comments for Public Posting: Pier 400 APM Terminal operator does not appear to be sharing the full intent of their plans for the port. As a resident of the surrounding Port community I am very concerned about the negative impact the proposed plan will have on my business and way of life. I understand the need for technological advances but not to the detriment of american jobs. In reviewing some articles recently published it shows that this is the largest port in America. The volume of cargo that moves through this port has been setting records year after year. This is very positive for our communities. I am confused, why does this operator intend to move less cargo, have less room for cargo containers all to cut cost of the Labor force. As a tenant of the Port of Los Angeles this does not sound like it complies with the Port Master Plan. I would think in today's time of limited space and congestion Port operators would seek to maximize the density of the yards and use advance equipment to safely move more volume than previous years. It seems this operator wants to shrink Pier 400 movement. If this is the case maybe they should move to a smaller port or leave altogether so Californians can continue to show that we are the leaders in moving cargo! I support being fully informed about the impact this will have on our community, local businesses, schools, wild life, surrounding cities and the port working class. The decision would be much easier if we had all the facts! Please share a fully transparent report for all to review as our community will be affected.

Ira Moreland
Concerned LA Citizen
April 19, 2019

Mayor Eric Garcetti
200 N. Spring Street
Los Angeles, CA 90012

Dear Mayor Eric Garcetti:

I am a concerned resident of the City of Los Angeles and one of the 331,310 people that voted to elect you Mayor. I supported you because I truly believe you support the people of this great City! Mr. Mayor I have come to understand that a Foreign Company who is a City of Los Angeles Tenant has requested to install automation equipment which would displace Hard Working American employees at the Largest Port in the US. I respectfully request that you stop this permit unless the Company agrees to purchase electric equipment that will be operated by ILWU members. The LA Port Master Plan aim to be consistent with The City of Los Angeles' overall program for creating employment opportunities. Automating the Terminal only benefits the company. Employees will lose income which in turn leads to home lost, lost in tax revenue, lost in political contributions, lost in local business spending, etc. Other negative elements are the loss of production & lost of container space, which makes no sense after the massive growth currently happening at our ports. We are setting records quarter after quarter with Volume moved something that Southern Californians are very proud of. The Company APM only cares about eliminating the workforce and using robots to fulfill the jobs. This is unacceptable for all the reasons previously mentioned.

Mr. Mayor, we as your constituents ask that you stand with us the people as we stood with you! We are looking to build better, stronger communities together. It all starts with preserving jobs and creating new ones. That is one of the reasons we elected you because we believe you are for the people and not corporate greed.

I thank you for your time and efforts!

Sincerely,

Ira Moreland

Ira Moreland
Concerned LA Citizen

Communication from Public

Name: Anthony

Date Submitted: 06/27/2019 12:47 AM

Council File No: 19-0688

Comments for Public Posting: With the nation focused on the Trump, the repeated dispute on abortion, trade dispute and now Iran ?? . Where does the City Council stand on the war against unions, jobs and the increased implementation of automation to replace the American worker! Corporations can easily use automation to help workers in their daily workplace activity and make production so much more effective. Instead they would rather displace the American worker and opt to fully automate solely on the basis of increasing profits, not for the everyday shareholder but for the corporate executives and their board members. It is my hope and the hope of you're constituents that you vote to preserve the jobs of the working class families and protect your constituents from the harmful environmental and socioeconomic effects that this type of automation will have on our city. Thank you.

Communication from Public

Name: Greg

Date Submitted: 06/27/2019 03:01 AM

Council File No: 19-0688

Comments for Public Posting: I say no to automating. We need to create jobs for people not for robots.

Communication from Public

Name: Ruben Gomez

Date Submitted: 06/27/2019 07:01 AM

Council File No: 19-0688

Comments for Public Posting: If the port were to automate. The federal, state and surrounding cities would lose economically. These unmanned machines will not contribute to social security, medicare, federal and state taxes. The businesses in the surrounding areas will see a dramatic loss in business from dock workers. If the port is allowed to automate we would only be hurting ourselves.

Communication from Public

Name:

Date Submitted: 06/27/2019 07:16 AM

Council File No: 19-0688

Comments for Public Posting: Please! Help Save our health and Jobs in our communities. "It's not been made clear to the public that 5G won't just be another number and a letter on your cell phone," said Frank Clegg, former president of Microsoft Canada. "It requires an entirely new infrastructure of thousands of small cellular antennas to be erected throughout the cities where it's going to be installed." On every other street corner pole. Scientists from 42 countries are warning their governments about the emerging health problems associated with wireless radiation, and Canadian doctors and scientists have added their concerns. "The most prevalent symptoms include headache, fatigue, decreased ability to concentrate, tinnitus, irritability and insomnia," said Dr. Riina Bray, an environmental health consultant. "Impacts on the heart and nervous system are also of concern." Bray has been working at the Provincial Environmental Health Clinic for 15 years, and she's seen the number of people suffering adverse effects from electromagnetic exposure rising. Professor and researcher Dr. Magda Havas is internationally recognized for her studies on the biological effects of electromagnetic pollution. She said that at high intensities these waves cause intense heat and pain because sweat glands on the surface of our skin act like mini antennas. "At lower intensities scientists are predicting damage to eyes, loss of insect populations which are already declining, antibiotic resistance in bacteria, and physiological effects on the nervous system and the immune system," said Havas. Dr. Anthony Miller, an advisor to the World Health Organization said there's now enough evidence that if they were to re-evaluate radiofrequency (RF) radiation, it would be labeled as carcinogenic to humans. "Governments could not possibly ignore that," said Miller. Some say the scientific debate about the health effects of RF radiation is over. But the question remains: Can we afford to take this risk? Medical doctors are requesting delayed 5G deployment until testing can be conducted on the long-term biological effects of the technology. Automating the ports of La/Lb will only leave us homeless and ill. Who will pay taxes for healthcare and home shelters. We as a community are already overwhelmed by Homelessness and Healthcare. Please show your support to your community and help us do what's right for the people. So, that the people can turn around and give back to our communities. May God Bless us all and be our witness.

Communication from Public

Name: Katherine Kaopua

Date Submitted: 06/27/2019 07:32 AM

Council File No: 19-0688

Comments for Public Posting: My business, located in Torrance, as well as the small businesses around me will be greatly hurt by port automation. A large portion of our clients work at the ports. Long Shore workers make up a large portion of our South Bay population. There are many businesses that will not survive the loss of the revenue created by their clients that work at the ports. The overall impact of loss of business and local jobs will be a decrease in real estate values, and loss of tax revenue from local tax to federal income tax which will lead less resources for everyone living in the South Bay.

Communication from Public

Name: Diana Castillo

Date Submitted: 06/27/2019 08:47 AM

Council File No: 19-0688

Comments for Public Posting: Automation hurts our community. Our community needs jobs. People need to be able to support heir families through gainful employment.

Communication from Public

Name: Dan Castillo

Date Submitted: 06/27/2019 09:24 AM

Council File No: 19-0688

Comments for Public Posting: While we are compelled to allow companies to do what is necessary for them to continue to grow and be profitable, we must NEVER forget the actual people who made them profitable in the first place. We must never allow companies to dictate to us that their profits are more important than the human capital that they so easily seem to discard when they are done with them. We must consider not just what is best for the company, but what is best for our society, our city, our communities & our families. Automation, while good for the company, destroys our communities. Say NO to automation! Our ILWU brothers & sisters stood with us during our strike, and as a public school history teacher who understands the importance of labor unions in our country, I stand with ILWU now. An injury to one, is an injury to all!

Communication from Public

Name: Martha Munoz

Date Submitted: 06/27/2019 09:26 AM

Council File No: 19-0688

Comments for Public Posting: Please DO NOT allow automation to proceed on pier 400. We cannot allow our community to become the next Detroit where thousands of hardworking people are out of a job. The cities of San Pedro, Long Beach and their neighboring cities would be extremely negatively impacted by automation. That negative impact would spread to local businesses, schools, and the real estate market. I urge you to choose your constituents over a foreign company.

Communication from Public

Name: Jamie

Date Submitted: 06/27/2019 09:39 AM

Council File No: 19-0688

Comments for Public Posting: I am not in favor of automating Pier 400. This will cause a loss of jobs and will have a negative impact on our city. When our community members have good paying jobs such as a dockworker they spend money in our communities. This spending along with taxes these individuals pay has a benefit for all. The shipping companies depended on our roads, police, and other city services. If they cut their work force they will be contributing less to our communities, while still exploiting our city services and congesting and destroying our roads. If automation happens the shipping companies must make up for the lost revenue that was generated from their laid off work force. I am strongly against the automation of pier 400!

Communication from Public

Name: Tony Ramirez

Date Submitted: 06/27/2019 09:58 AM

Council File No: 19-0688

Comments for Public Posting: our community cannot afford to lose all these jobs at once. Taxpayers have earned the right of community protection. The company must continue to pay taxes for the jobs automation will displace. The workers need job training for a new jobs in our community. This city and the company must continue to support our community.

Communication from Public

Name: Randal Sialana

Date Submitted: 06/27/2019 10:27 AM

Council File No: 19-0688

Comments for Public Posting: Dear Council Members, I am writing you today to voice my opinion regarding the automation. I grew up in the South Bay, both my parents worked at the Harbor department in San Pedro. My mom worked til she tossed her battle with Alzheimers and my dad retired from the city of Los Angeles. I have been a casual for over a decade and I see how the money is spent in the local community. The flow is natural. We make our money working in this area, we spend money in this area and in return, the city is a better place. There are new houses being built, new stores, shopping centers, restaurants, health facilities, and other necessities being built for the growing community. And why is it growing?? It all starts with the work. The labor..This is the only job that I know people are waiting hours a day, showing up 2 times daily for multiple days on end to for a chance to be dispatched a job. The Labor is who built the Pier 400 when there was not one. The labor is who helped the companies make millions of dollars annually. if there is no labor, there will be no money for the schools, city and most important..the hundred of city jobs that rely on our tax money for their salary! Then there is the safety concerns... have Maersk take the time to do all the tests that are needed to ensure that the community is safe.. because out is our families living here and not theirs. And Lastly..if you haven't been to Detroit, you must at least visit to actually see what happens when an industry basically shuts down. It is sad to see all the abandon buildings, homes and business that were impacted by the loss of work. We do not want that to happen here. Lets not repeat history. We are not against keeping up with the times, but we are against the removal of labor. Lets not move forward until all the studies have been completed and both sides sit down and work out a plan works for all parties I humbly thank you for allowing me to submit my feelings regarding this issue. Randal Sialana

Communication from Public

Name: Raul Arraiga

Date Submitted: 06/27/2019 10:29 AM

Council File No: 19-0688

Comments for Public Posting: The Harbor Community strongly supports the the denial of Coastal Development Permit No. 18-25. The economic and environmental impacts to the surrounding communities has never been thoroughly taken into account. As citizens who live in these communities we can attest to the devastating impact that automation would have to the people in the Harbor Area. The exact implications of automating many industries over multiple decades has not been fully studied and it is the responsibility of those in power to protect the interest of the environment and communities at large. Economic and environmental impacts are ultimately connected and should be considered one in the same. Until the decision makers and captains of industry have a viable plan to help workers navigate and ultimately survive the oncoming onslaught of job losses, we demand automation be delayed indefinitely. If our city works together we can be a shining example of how to properly deal with automation so that it is not applied without destroying local environments.

Communication from Public

Name: Joe Andrade
Date Submitted: 06/27/2019 10:35 AM
Council File No: 19-0688
Comments for Public Posting: No to automation on the waterfront Los Angeles Harbor Not to robots replacing jobs that support our local economies

Communication from Public

Name: Joshua R.

Date Submitted: 06/27/2019 01:36 PM

Council File No: 19-0688

Comments for Public Posting: Automation is an attack on not just the ILWU family, but the whole community. We pay our fair share of taxes. We are active in our communities. The trickle down effect of this will be wide spread. Stores, restaurants, daycare, landscapers, etc... You have a responsibility to your community as well as our country. This is foreign greed. Humans are not affecting the bottom line. We out complete automation by a considerable margin. We produce more at a minimal cost. On-site human operated electric equipment nullifies any EPA excuses from APM. 5g is untested on the ecology. Please side with the people who take our time to vote at all elections. They say evil wins when good people turn a blind eye. Help us and the future of southern California. The World Maritime News had this to say "In 2018, A.P. Moller – Maersk reported an increase in revenue of 26% to USD 39 billion compared to USD 30.9 billion reported a year earlier, with growth in all segments. EBITDA for the year was USD 3.8 billion, increasing from USD 3.5 billion seen in 2017, in line with the company's latest guidance of USD 3.6 – 4 billion." Thank you for you time.

Communication from Public

Name: Patrick Garrett
Date Submitted: 06/27/2019 01:48 PM
Council File No: 19-0688
Comments for Public Posting: Stop the Automation of Peir 400- This will crash our local economy

Communication from Public

Name: Elena Huizar-Morales
Date Submitted: 06/27/2019 01:10 PM
Council File No: 19-0688
Comments for Public Posting:

Council Members: Gilbert Cedillo, Paul Krekorian, Bob Blumenfield, David E. Ryu, Paul Koretz, Nury Martinez, Monica Rodriguez, Marqueece Harris-Dawson, Curren D. Price, Jr., Herb J. Wesson, Jr., Mike Bonin, Greig Smith, Mitch O'Farrell, Jose Huizar, Joe Buscaino

June 26, 2019

Dear Los Angeles City Council Members,

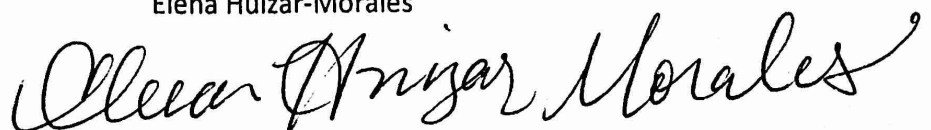
I am writing to you on behalf of humanity. My name is Elena Huizar-Morales. I am 35 years old, and a full time working mother of four. I have lived in the port city of Wilmington all of my life. Currently Wilmington and every other city in Los Angeles seem to be facing a number of issues which coincide with one another. Homelessness in our city has gone up significantly within the last few years. At the same time jobs have been disappearing due to large corporations looking to increase profits at the cost of the working people. With advancements in technology, automated machines have become easily available to these huge companies and are used to replace employees. This is cause for great concern because people will no longer be needed. Walmart has recently replaced its inventory clerks with a robot. McDonalds has Kiosks to order food; the largest ports in our country now want to displace its workers. This is only the beginning of a huge issue.

I feel that government at all levels should regulate how much work is stripped away from the citizens of our county, and country. The companies and corporations that are taking part in this have huge profits and can afford keeping people employed. This is a global crisis, people are losing their jobs more often now than ever. While the corporations are getting bigger and bigger profits. Greed is at the root of this problem and we have to stop this before it is out of control. We are a developed country and we didn't become one by having our population unemployed or under employed. The workforce that handles the cargo coming in and out of the Port of Los Angeles consists of thousands of people. Some with an education and others without. There is no issue with inequality within this workforce that APM is trying to displace. If APM automates its terminal at pier 400 this will hugely affect the workforce at our ports and surrounding communities. As Los Angeles residents it is our duty to withhold the integrity of our people and communities that we are so proud of. Los Angeles is one of the biggest work communities in all of this country, why would we let this happen?

On June 20th 2019 the Los Angeles Port Commissioners voted 3-2 which denied an appeal for Coastal Development Permit NO. 18-25. I ask that you veto The Harbor Commissioners decision on this matter until further analysis is made on the impact this permit will have on our city. Please do not deprive people of their economic, and social right to an adequate standard of living. I thank you for taking the time to read my letter.

Sincerely,

Elena Huizar-Morales

A handwritten signature in black ink that reads "Elena Huizar Morales". The signature is written in a cursive, flowing style with a large, decorative flourish at the end.

Communication from Public

Name:

Date Submitted: 06/27/2019 11:40 AM

Council File No: 19-0688

Comments for Public Posting: Say no to automating at the L.A docks. "Consolidation hurts our economy"

Communication from Public

Name: Cindy Martinez

Date Submitted: 06/27/2019 12:04 PM

Council File No: 19-0688

Comments for Public Posting: To ALL It Concerns, As a born and raised Harbor Area resident of 46 years. I felt the need to voice my concerns today. I will be standing in support with the ILWU UNION members on NO automation. Even though many of my family and friends are union members it will NOT only effect them it will effect us ALL. They say supposedly technology is the future but not at the detriment to the lively hood of humans. Working humans is what makes a union and also a community not machines. Once again NO autmation. Please let that rest on your hearts for as long as it takes to make the right decision, think with your heart not your pockets. Thank you.

Communication from Public

Name: Ian McGough

Date Submitted: 06/27/2019 12:51 PM

Council File No: 19-0688

Comments for Public Posting: Everyone involved in the decision-making process keeps touting how automation will increase terminal efficiency and help the ports meet increasingly stringent environmental requirements to cut air and water pollution. The truth is that every industry and independent audit and study which has been conducted at ports worldwide demonstrate quite the opposite. Efficiency is the first and largest thing to suffer at ports which have automated including the two LA ports which have already automated. The average loss of productivity, depending on the study you're looking at, is in the neighborhood of 15%. But then there's the biggest savings that the shipping companies see: labor dollars. Every dollar saved representing a person whose livelihood and ability to provide for their family was eliminated to create that savings. If the shipping companies were truly concerned about the environment, they could update their decades old equipment tomorrow by purchasing new "electric and hybrid" vehicles that humans could drive and reduce emissions without eliminating jobs which support thousands of LA port community families. If you remove the livelihoods of thousands of well paid professionals in the same community simultaneously, that will inevitably have a dramatic impact on that community. Tax revenue dries up, and with it all the maintenance and improvements to that city's infrastructure. All the businesses which cater to and depend on port employees for their own livelihoods would be forced to shutter their doors. The port communities would very quickly deteriorate. But those shipping companies would save a buck, and there is no real down side to them that these savings come at the cost of productivity, and these international companies have no interest in the condition of our port communities. They're willing to delay all of America in receiving their over-seas goods due to losses in efficiency. All so they can have a workforce of robots which they can control versus individuals with needs and opinions. This is a microcosm of the general direction that business is attempting to take in this country. Skilled work and human labor in general is unpredictable. And that is the crux if the issue. Companies hate unpredictability. And they are, of course, all too willing to exchange efficiency and the humanity element for predictability. It is difficult to identify an industry whose workforce is not

currently in the process of seeing their jobs replaced by AI, computers, and automation. Retail, food service, transportation and logistics, hospitality, telecommunications, journalism, medical service, all of these are currently in the process of being replaced worldwide. We must, as a society, stand up against corporate profits dictating whether entire industries of humans lose their jobs to robots. The longshoreman are just on the tip of the spear that is trying to protect the jobs of every human being worldwide. I am not a Luddite. If there was a solid case to be made for automation causing an increase in efficiency, then it would be ridiculous and backwards-thinking to simply defend the loss of jobs at the expense of modernization. Buggy whip salespeople and typewriter repairmen would agree. But such is not the case here. This is merely perceived modernization which is actually less effective at performing the tasks to which it will be assigned. This is a backwards step in efficiency which will hurt the overall American economy, and the only beneficiary is a foreign shipping company.

Communication from Public

Name: Andriana Burkhammer-Flores

Date Submitted: 06/27/2019 12:58 PM

Council File No: 19-0688

Comments for Public Posting: Dear Sir or ma'am, As a community member in the harbor area for over 34 years, a mother, a home owner and a 3rd generation longshore worker, I urge you to please take a close and cautious look at the level 1 permit Maersk has submitted. Port of LA Commissioner Middleton gave plenty of examples in her statements as to why this permit should not be approved. It is clearly going to cause longterm, detrimental effects on our local communities and economy, not to mention the very high possibility that 5g is absolutely going to be used with this particular long term project. 5g is at the top of many heated conversations of HUGE health concerns throughout our country and the world. More intensive research and discussion needs to be explored before allowing such technology into our ports/communities. Another aspect of harm that can be done with a fully automated port, is port security. We are talking about the countries LARGEST port, and the largest terminal in Los Angeles. This is a cause for concern when it can potentially be breached at any time from any hacker overseas or here in our own homeland. Not to mention the high possibilities of power loss which could put a COMPLETE HAULT to all production for any unknown amount of time causing a variety of backups which overflow onto our city streets and bridges. In the sense of job loss, if this project is allowed it will guarantee lead to the loss of thousands of jobs in our IMMEDIATE AREA. GOOD PAYING JOBS that are an ESSENTIAL part to the success of our many small businesses and real estate market in the south bay and surrounding areas. If thousands of people become unemployed, that is a huge environmental impact! (Which is a reason a level 2 permit needs to be requested and an impact report needs to be done) Please take the time to truly see how this is a monumental decision of the direction of where our community is going to end up. Please research what happened to Detroit when the auto union folded. We appreciate all of your consideration and are praying you protect AMERICAN JOBS OVER CORPORATE GREED AND OVER THE POCKETS OF FOREIGN COMPANIES. the land belongs to US, PLEASE BE CAUTIOUS WITH ITS FUTURE. AS IT WILL IMPACT ALL. Thank you.

Communication from Public

Name: Mark Arriola

Date Submitted: 06/27/2019 08:52 PM

Council File No: 19-0688

Comments for Public Posting: I own a restaurant in San pedro ,MVP pizza. My wife and I have 8 children and 5 of my kids work here at mvp. I open my shop for families would have a fun time together, I have all sports team banquets for children . I feel with the the automation will hurt all our local businesses including mvp pizza . I stand with ILWU NO AUTOMATION. Long shoreham are hard working men and women and with them not working as much it will be hard for them to support the local restaurants and businesses. Not only that but what about our children's sports that also will take a big hit and these kids are our future of our towns and ports.

Communication from Public

Name: Eddie cervantes

Date Submitted: 06/27/2019 08:52 PM

Council File No: 19-0688

Comments for Public Posting: Please help us protect our future n the future of our children. .We are watching the begining of the end. Self check out at homedepot think about it Store opens for 16 hours a day 4 self check out kiosk thats means 4 people out of a job per shift 7 days a week 2 shifts per day 56 people a week.out of a job n the prices dont drop so how do we benefit. Same at mc donalds,chase bank, now our ports its all about profits . Just think about this in 20 years do the right thing n protect our future.

Communication from Public

Name: Annie

Date Submitted: 06/27/2019 08:56 PM

Council File No: 19-0688

Comments for Public Posting: I urge and plead with you today to help preserve the working class of America and stop corporate greed. Robots do not pay taxes, buy cars or vote. Keep 5G out of our community. Thank you

Communication from Public

Name: Michael Patrick Flanagan

Date Submitted: 06/27/2019 08:59 PM

Council File No: 19-0688

Comments for Public Posting: Today, we all stand here in front of you Council, In Solidarity. Not only as members of Locals 13, 63, and 94 but as concerned citizens of the entire Harbor Area Community. As you all know, two Automated terminals already exist in our Harbor. TraPac located in the Port of Los Angeles and Long Beach Container Terminal in the Port of Long Beach. Both LA and Long Beach Port complexes can, and already are, marketed as Green Ports. We do not need a third automated facility in order to attract new business as a result of implementing more automated technology. I believe there lies a logical compromise where APM can remain in full compliance for the 2030 Clean Air Action Plan. This would involve APM purchasing electric, clean-air, Zero Emissions equipment with cabs attached for ILWU workers to operate. Unfortunately, APM seems unwilling to do so. The terminal sees this as unique opportunity to justify full scale automation by using the Clean Air Action Plan as a means to eliminate nearly all labor at Pier TI 400. I urge the City Council to reverse the Harbor Commission's decision. We, the Harbor Area community, stand with Supervisor Janice Hahn, Councilman Joe Busicano, Commissioner Diane Middleton and Commissioner Anthony Pirozzi. We demand a full and thorough Environmental Impact Report highlighting the potential effects on Marine life and habitat, health concerns surrounding the use of 5G Wi-Fi technology, and the economic impact on any jobs lost to said automation. Stop this attack on good Middle Class jobs now! Sincerely, Michael Patrick Flanagan

Communication from Public

Name: Lore Olaes

Date Submitted: 06/27/2019 09:06 PM

Council File No: 19-0688

Comments for Public Posting: I think that the City Council should delay voting on this item until a thorough study regarding the long term fiscal impact on families, economic impact on jobs, and quality of life issues to the South Bay area (especially in San Pedro and Wilmington) are determined. This is a true policy issue where you will be determining if it is more important to have automation or jobs. Instead of looking at this issue as a single decision, it might be wise to consider how/what will replace the jobs that will be lost. This decision may aggravate the already unweildly problem of homelessness in Los Angeles. I want to advocate delaying a decision until solutions to possible job loss can be put in place. Grappling with how to make sure that human beings have jobs AND DIGNITY in an age that idolizes machines is an issue that civic leaders need to take the time to study and create humane policies that value people. (E.g. some states require that a gas attendant pumps gas...which ensures that jobs are available even if technology advances in that industry. Or, making sure that jobs lost in one industry has direct retraining / hiring in another area , like LADWP utility positions or emerging green/solar industries). Please delay voting on this issue until the impact on human beings and their livelihoods are considered.

Communication from Public

Name: Samuel Dear

Date Submitted: 06/27/2019 09:13 PM

Council File No: 19-0688

Comments for Public Posting: My name is Samuel Dear and I have lived in Whittier for 24 years. I am currently employed as a casual longshoreman and will be affected by the harbor commission's decision on the appeal of the level 1 coastal development permit 18-25. Therefore I am writing to express my support for city council vetoing the Port of Los Angeles Harbor Commission's decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/ Maersk and automation of pier 400. The automation of any industry should never be taken lightly. Our city officials should always take the time to thoroughly weigh pros and cons using all data at their disposal before approving any permits that will eliminate jobs, and thereby protect the interests of communities and the taxpayers that they serve. It is my belief that the port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project, which APM/ MAERSK knows will have adverse affects on the surrounding communities. Companies should be able to do everything they can to remain competitive, however, not at the expense of working class families and not by causing extensive socio-economic and environmental damage to surrounding communities through the elimination of good paying jobs, and the introduction of technologies for which we have yet to fully identify the long term health effects. There is now a multitude of proven safe technologies readily available that can meet or exceed the standards set forth in the CAAP, with zero or near-zero emissions, proving that labor, productivity, and the environment do not need to be sacrificed in order to save a dollar, and still allowing the ports of Los Angeles and Long Beach to remain competitive. The loss of jobs will be felt throughout, but not limited to, surrounding communities and counties. Many small businesses which rely on their longshore clientele's patronage will suffer a loss of revenue, and not to mention the cities and state's loss of tax revenue. Our communities are already plagued with unemployment and homelessness, and allowing the Harbor Commission's decision to stand will only add to it. The nation's population is constantly growing, but how can we sustain a healthy economy if we lose all labor jobs to automation? How will the average American afford to buy a home, or the very goods that come in through our ports? A high quality of life should not

be limited to those who have the means to become engineers, attorneys, or doctors, therefore a thriving and stable society must maintain a healthy blend of skilled and unskilled workers in every profession. This is why the original level 1 Coastal development permit APM/Maersk should have been denied, and APM/Maersk should have been required to submit extensive socio-economic and environmental impact reports along with filling for a level 2 coastal development permit and fully disclosing their intentions for choosing to automate over finding a solution that befits labor, the company, and the local communities. We, your constituents urge you to veto this appeal less we suffer the same fate as Detroit.

Communication from Public

Name:

Date Submitted: 06/27/2019 09:23 PM

Council File No: 19-0688

Comments for Public Posting: A daughter petitioning for a hardworking middle class man who is strongly against the work of machines replacing human labor. If it weren't for this job, we'd still be living in a studio sized apartment, raising three children in a low rated school system. Because of the job opportunities provided at the ports, we were able to relocate to a middle/upper class school system. Raised by young parents, they provided all they could and for that, I am grateful. The thought of robots replacing human labor is a huge slap in the face for all of the hardworking people who earned to survive "comfortably" for the next phase of their life. Without these jobs, the hard work will be for nothing. Please take a moment to reconsider the value of opportunities given to the workers all of these years, how they've been able to provide for their families, and fight to provide in a declining environment.

Communication from Public

Name: Marie Galuppo

Date Submitted: 06/27/2019 09:25 PM

Council File No: 19-0688

Comments for Public Posting: I, Marie Galuppo, am writing in support of the ILWU. I am born and raised in San Pedro, California. I am 43 years old and still living here in San Pedro raising my family. We take pride in our community and our jobs. We believe that full automation of any terminal is detrimental to many HARDWORKING families, our communities, and our economy. We work in our communities and we spend our money in our communities. WE ARE FAILING OUR CHILDREN BY ALLOWING FOREIGN CORPORATIONS TO REPLACE AMERICAN WORKERS AND AMERICAN JOBS ON AMERICAN SOIL WITH ROBOTS. This will cause a devastating ripple effect to our communities and our economy. We urge the company to use HUMAN OPERATING EQUIPMENT. Also, 5G has not been safety tested.

Communication from Public

Name: Raj M

Date Submitted: 06/27/2019 09:35 PM

Council File No: 19-0688

Comments for Public Posting: My name is, Raj M, and I have lived in Long Beach for 26 years. I am currently a small business owner and will be affected by the harbor commission's decision on the appeal of the level 1 coastal development permit 18-25. Therefore I am writing to express my support for city council vetoing the Port of Los Angeles Harbor Commission's decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/ Maersk and automation of pier 400. The automation of any industry should never be taken lightly. Our city officials should always take the time to thoroughly weigh pros and cons using all data at their disposal before approving any permits that will eliminate jobs, and thereby protect the interests of communities and the taxpayers that they serve. It is my belief that the port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project, which APM/ MAERSK knows will have adverse affects on the surrounding communities. Companies should be able to do everything they can to remain competitive, however, not at the expense of working class families and not by causing extensive socio-economic and environmental damage to surrounding communities through the elimination of good paying jobs, and the introduction of technologies for which we have yet to fully identify the long term health effects. There is now a multitude of proven safe technologies readily available that can meet or exceed the standards set forth in the CAAP, with zero or near-zero emissions, proving that labor, productivity, and the environment do not need to be sacrificed in order to save a dollar, and still allowing the ports of Los Angeles and Long Beach to remain competitive. The loss of jobs will be felt throughout, but not limited to, The loss of jobs will be felt throughout, but not limited to, surrounding communities and counties. Many small businesses which rely on their longshore clientele's patronage will suffer a loss of revenue, and not to mention the cities and state's loss of tax revenue. Our communities are already plagued with unemployment and homelessness, and allowing the Harbor Commission's decision to stand will only add to it. California's and US population is growing constantly. People are living longer due to advancement in medical field. How are we going to sustain a healthy economy if we constantly loose jobs to automation. We

all can't be engineers or doctors or mechanics. To have a thriving economy we need a healthy blend of workers. How will the average American afford to buy a home, or the very goods that come in through our ports? A high quality of life should not be limited to those who have the means to become engineers, attorneys, or doctors, therefore a thriving and stable society must maintain a healthy blend of skilled and unskilled workers in every profession. This is why the original level 1 Coastal development permit APM/Maersk should have been denied, and APM/Maersk should have been required to submit extensive socio-economic and environmental impact reports along with filling for a level 2 coastal development permit and fully disclosing their intentions for choosing to automate over finding a solution that befits labor, the company, and the local communities. We, your constituents urge you to veto this appeal less we suffer the same fate of Detroit. Being an immigrant, I love America because of its checks and balances. Please support the Union and it's hard working people so we can maintain it. Respectfully, Raj M.

Communication from Public

Name: Ernest Correa

Date Submitted: 06/27/2019 06:24 PM

Council File No: 19-0688

Comments for Public Posting: Please STOP this permit. I am a concerned community member and also a longshoreman. A direct hit to labor is a direct hit to our communities. If this permit goes through it will have severe impact and will create a ripple effect that can deteriorate local businesses, real estate and surrounding communities. The representative for APM Maersk, specifically said it was about labor cost. That they would not hide behind the Clean Air Act. Many operated clean air machines exist. We can embrace technology without it reducing man labor. An injury to one is an injury to all."- Harry Bridges

Communication from Public

Name: James Eckardt

Date Submitted: 06/27/2019 06:24 PM

Council File No: 19-0688

Comments for Public Posting: We are against APM displacing the longshore workers and the local communities economic future. With out even an attempt at a just transition by a foriegn company against American families.

Communication from Public

Name: Martha Simmonds

Date Submitted: 06/27/2019 06:40 PM

Council File No: 19-0688

Comments for Public Posting: Dear honorable members of Los Angeles City Council. I implore you to consider all aspects and the long term ramifications of your decision to allow more automation at the LA ports. I am sure you are well aware of the devastation to a community when a majority of it's constitutions are unemployed. A partial list includes foreclosure of homes, businesses leaving, increased crime, homelessness, loss of tax revenue, schools without proper funding. We are well aware votes can be bought. I think this is the moment you need to define yourselves, prove you integrity, and do what is right for San Pedro, Long Beach, and the greater Los Angeles.

Communication from Public

Name: Alton Vera

Date Submitted: 06/27/2019 06:44 PM

Council File No: 19-0688

Comments for Public Posting: My name is, Alton Vera, and I have lived in Wilmington for 41 years. I am currently employed as a longshore worker, and will be affected by the harbor commission's decision on the appeal of the level 1 coastal development permit 18-25. Therefore I am writing to express my support for city council vetoing the Port of Los Angeles Harbor Commission's decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/ Maersk and automation of pier 400. The automation of any industry should never be taken lightly. Our city officials should always take the time to thoroughly weigh pros and cons using all data at their disposal before approving any permits that will eliminate jobs, and thereby protect the interests of communities and the taxpayers that they serve. It is my belief that the port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project, which APM/ MAERSK knows will have adverse affects on the surrounding communities. Companies should be able to do everything they can to remain competitive, however, not at the expense of working class families and not by causing extensive socio-economic and environmental damage to surrounding communities through the elimination of good paying jobs, and the introduction of technologies for which we have yet to fully identify the long term health effects. There is now a multitude of proven safe technologies readily available that can meet or exceed the standards set forth in the CAAP, with zero or near-zero emissions, proving that labor, productivity, and the environment do not need to be sacrificed in order to save a dollar, and still allowing the ports of Los Angeles and Long Beach to remain competitive. The loss of jobs will be felt throughout, but not limited to, surrounding communities and counties. Many small businesses which rely on their longshore clientele's patronage will suffer a loss of revenue, and not to mention the cities and state's loss of tax revenue. Our communities are already plagued with unemployment and homelessness, and allowing the Harbor Commission's decision to stand will only add to it. The nation's population is constantly growing, but how can we sustain a healthy economy if we lose all labor jobs to automation? How will the average American afford to buy a home, or the very goods that come in through our ports? A high quality of life should not

be limited to those who have the means to become engineers, attorneys, or doctors, therefore a thriving and stable society must maintain a healthy blend of skilled and unskilled workers in every profession. This is why the original level 1 Coastal development permit APM/Maersk should have been denied, and APM/Maersk should have been required to submit extensive socio-economic and environmental impact reports along with filling for a level 2 coastal development permit and fully disclosing their intentions for choosing to automate over finding a solution that befits labor, the company, and the local communities. We, your constituents urge you to veto this appeal less we suffer the same fate of Detroit.

Communication from Public

Name: Kathleen Gabel

Date Submitted: 06/27/2019 07:12 PM

Council File No: 19-0688

Comments for Public Posting: Comment: State of California vs. APM/ ILWU Comment: There are no Federal Regulations in place for automation; U.S lags behind other countries. Comment: How are foreign companies allowed to come to the U.S. and RENT Port land and renovate, ie; (automate) without permission from the Owner - The people of California own Port land. Comment: Based on the above, the 2002 contract between ILWU and APM was illegal, in that there was no letter of Approval or permission from the People of California to renovate/automate) on its land. The two parties involved APM/ILWU were or are not the true owners of this land in order to enter into a contractual agreement. The contract was illegally signed and should be thrown out. Of note: Who rents property from an owner and is able to make changes to the owners property without the permission of its owner(s). No-One! Comment: POLA Harbor Commission Board should consist of a panel of people who are or were born and raised in this Port Community; People who know its rich history. People who made this port town. I do not believe the Board was unbiased, I believe they were bribed in order to sway the vote. Comment: The People of California should have the right to a fair vote being that the land belongs to the people. Permission was not granted by the State of California to renovate/automate!! Comment: 5G is a health risk on humanity.

Communication from Public

Name: Aaron V Hernandez
Date Submitted: 06/27/2019 07:28 PM
Council File No: 19-0688

Comments for Public Posting: Dear City Council Members, Thank You for the opportunity to address you. I believe that automation of the workplace is mainly fueled by corporate greed and the desire of Millionaires to become Billionaires. I believe our society is in a mad rush to the bottom by allowing companies all over the world, not just in our Port, to constantly replace working Men and Women with machines and robots. We have a serious Homeless Problem in our Country, State and City! If we continue to allow machines and robots to replace workers, How much worse do you think Homelessness will become? If we are no longer working how do we pay our bills, shop, go to movies or Do anything? How do we pay the Taxes that allow for your very own Salaries? How do we keep our own Human Dignity? The Leaders of Our Great City of Los Angeles have stood by their Citizens and Workers in the past and I'm asking this Council today to Stand with the working Men and Women of the ILWU to Protect and help Preserve some of the best blue collar jobs in the entire World, right here in our own Port. APM Terminals can meet Environmental goals and standards by using Human operated Environmentally friendly machines. No matter how they try and spin there reasoning, their goal is to eliminate the work force, so that they can keep their Millions and not have to share it with the Community in which they do Business. So, today I ask the L.A. City Council to Help set a Precedent against Automation in the workplace, and Stand with Workers and say, "Enough is Enough" to automation and the destructive consequences it has on our Society! Please send Coastal Development Permit #18-25 Board of Harbor Commissioners/Denial of Appeal, Back to the Port of Los Angeles and let the Board of Commissioners know they made a mistake and have Failed the communities they serve. Thank You Council Members and Thank You Councilman Buscaino!

Communication from Public

Name: Michael Gearin
Date Submitted: 06/27/2019 05:49 PM
Council File No: 19-0688
Comments for Public Posting: Veto the harbor commissions decision to approve the Mearsk automation plan. Human longshoremen do a great job. Support the local economy by investing in human workers, not robots and corporations! Teacher Harry Bridges Span School Wilmington, CA

Communication from Public

Name:

Date Submitted: 06/27/2019 06:16 PM

Council File No: 19-0688

Comments for Public Posting: Hello, please be aware that no matter the corporate jargon that is in APM's proposals, the bottom line is that they want to cut out the labor force. As a member of the port community my livelihood as well as the livelihood of many of my friends and family members is at stake. We started this union to provide a future for our children and their children and for it to continue on. APM pretends this is about the environment even though no environmental studies have shown long term effects of 5g. If they are asking for grants it should be denied. The sole purpose of what they are doing is to cut us out. Please consider that the communities surrounding the ports depend on the port as a work place as a steady income to provide for our families and to give back to our communities. Please help us continue to work, do not let the robots take over!

Communication from Public

Name: Sara Gasperov

Date Submitted: 06/27/2019 06:16 PM

Council File No: 19-0688

Comments for Public Posting: My entire family relies on work from the ports of LA and LB to survive. Myself, my father, my aunts, uncles, and cousins are all longshoremen. And my family is not unique. Many families that live in the harbor communities have multiple family members that work at the Port. The loss of jobs from automation has already started to affect us. If more terminals are allowed to automate, this will be devastating to not just my family, but many families in this area. If we don't have work, we can't pay mortgages. We can't frequent restaurants or shop in local businesses. The economic fallout will be catastrophic. AMP is a foreign company operating on US public land. Why are foreign profits being valued higher than American jobs? This makes no sense to me or anybody else in this community. My fiance is a Realtor. His business will also be affected by port automation. Many of his clients are longshoremen. Who will be around to buy houses when the last well-paying job in this area is eradicated? We already have a tremendous amount of homelessness in this area. When our jobs disappear, it will only get worse. Please think about the real people in this city that will be affected by port automation before allowing this foreign company to dictate our future. I understand that profits are important, but people are more important. Besides, the McKinney report actually shows that productivity actually goes down with the automated equipment versus human power. Please consider your constituents when addressing this issue. Thank you.

Communication from Public

Name: Pat. R

Date Submitted: 06/27/2019 02:22 PM

Council File No: 19-0688

Comments for Public Posting: As a mother of 2 longshoremen I concerned at this power grab. Automation is an attack on not just the ILWU family, but the whole community. You have a responsibility to your community as well as our country. This is foreign greed. Humans are not affecting the bottom line. We out complete automation by a considerable margin. We produce more at a minimal cost. 5g is untested on the wildlife. Please side with the people who take our time to vote at all elections. Don't turn a blind eye. Help us please! Thank you for you time.

Communication from Public

Name: Trina Mendoza

Date Submitted: 06/27/2019 02:32 PM

Council File No: 19-0688

Comments for Public Posting: I own and operate two businesses in the San Pedro Community. The First is a restaurant I own with my 25 year old daughter. We are what is considered “ a mom and daughter shop” the loss of jobs in our community would effect my daughters future in continuing the legacy of an aspiring young restaurant entrepreneur. It is important that our young entrepreneurs have a chance to fulfill their dreams. Without a working class community it would be more discouraging for our youth to believe they can start off small and work hard to build up to bigger investments. This would mean they would have to just start off big. It is important for our youth to believe “they can” The second business is a Preschool. I am a San Pedro native. I’ve been raising the community children for 25 years. I have already experienced a time when the house market crashed and I almost had to close my business. Parents were losing jobs and unenrolled their children from the preschool. In return they had grandparents, friends, cousins, aunts free child care to care for their children. It was a domino effect of the loving family or friends watching the children jeopardizing their job, life and schedules to accommodate watching the kids. The grandparents were old and tired having to take care of infants. The parents were stressed. The children were bouncing home to home. The children are our future taking away jobs in the community will give them less hope to dream big. No to automation on the Port.

Communication from Public

Name: Nora Torres

Date Submitted: 06/27/2019 02:37 PM

Council File No: 19-0688

Comments for Public Posting: Automating ports will only take away jobs, causing people to lose their jobs their homes and community can be harmed. We do not need any more homeless people. We need to create jobs not taken them away! Also 5G Technology is not good for the environment and the people.

Communication from Public

Name: Pamela B.

Date Submitted: 06/27/2019 02:45 PM

Council File No: 19-0688

Comments for Public Posting: My family relies on these jobs to survive. Corporate bottom lines don't matter to SoCal. We will all be affected by this automation. Please side with the whole community against this attack.

Communication from Public

Name: Rafael Chavez Jr

Date Submitted: 06/27/2019 02:51 PM

Council File No: 19-0688

Comments for Public Posting: Dear Los Angeles City Council, My name is Rafael Chavez Jr. I am a resident of the Port of Los Angeles (PORT), San Pedro, a native Los Angelino. As a young man I had on opportunity to work at Todd's Shipyard and Star-Kist. Those industries are gone now. However, longshoring is inherit to the PORT based in its geographical location along the supply chain and built infrastructure. I vote that you transition to a policy that is more responsive rather than reactive with regards to the emergence of automation within our PORT and beyond. Automation, in conjunction with artificial intelligence, will harm our protected natural habitats and challenge the existence of good wages, the blue-collar workforce and the middle class. These good wages provide a good tax base, enable home-ownership, ensure family medical coverage, allow local businesses to thrive and secure PORT parents with the financial means to fund a college education for their children. These wage factors all foster a better community for our PORT. We can start by implementing guidelines, then by drafting local legislation and forming eventual law, that require a comprehensive study that examines the social/economic, environmental and higher education impacts of proposed automation and artificial intelligence for any permit at the PORT or city level. I am confident based on the information I have read, that human less automation will have a vast and devastating negative affect on our local PORT environment and economy. In conclusion, again I ask that you be responsive rather and reactive with regards to human less automation. These human less corporate endeavors will come from all sectors of the workforce. This is just the tip of the iceberg. When it comes to this endeavor by APM Maersk on State owned land The People of the State of California say "NO!" Regards, Rafael Chavez Jr. June 27, 2019

Dear Los Angeles City Council,

My name is Rafael Chavez Jr. I am a resident of the Port of Los Angeles (PORT), San Pedro, a native Los Angelino. As a young man I had an opportunity to work at Todd's Shipyard and Star-Kist. Those industries are gone now. However, longshoring is inherent to the PORT based in its geographical location along the supply chain and built infrastructure.

I vote that you transition to a policy that is more responsive rather than reactive with regards to the emergence of automation within our PORT and beyond. Automation, in conjunction with artificial intelligence, will harm our protected natural habitats and challenge the existence of good wages, the blue-collar workforce and the middle class. These good wages provide a good tax base, enable home-ownership, ensure family medical coverage, allow local businesses to thrive and secure PORT parents with the financial means to fund a college education for their children. These wage factors all foster a better community for our PORT.

We can start by implementing guidelines, then by drafting local legislation and forming eventual law, that require a comprehensive study that examines the social/economic, environmental and higher education impacts of proposed automation and artificial intelligence for any permit at the PORT or city level. I am confident based on the information I have read, that human less automation will have a vast and devastating negative affect on our local PORT environment and economy.

In conclusion, again I ask that you be responsive rather than reactive with regards to human less automation. These human less corporate endeavors will come from all sectors of the workforce. This is just the tip of the iceberg. When it comes to this endeavor by APM Maersk on State owned land The People of the State of California say "NO!"

Regards,

Rafael Chavez Jr.

June 27, 2019

Communication from Public

Name: Ben Hauck

Date Submitted: 06/27/2019 03:17 PM

Council File No: 19-0688

Comments for Public Posting: The International Longshore and Warehouse Union is at risk of losing thousands jobs over the next ten years if the terminal operators in the Ports of Los Angeles and Long Beach continue with their plans to replace workers with automated cargo moving equipment. Not only will this move towards automation eliminate thousands of union jobs directly, it will indirectly have a negative impact on local jobs and hurt the local economy. With minimal productivity gains from automation, and any benefits outweighed by the costs to workers and the local economy, I urge City Council to stand with workers and local communities against automation of our ports. Thank you for your consideration.

Communication from Public

Name: Ed Trybula

Date Submitted: 06/27/2019 03:42 PM

Council File No: 19-0688

Comments for Public Posting: This not only hurts LA but itll also hurt OC and surrounding areas. It's a big economy loss and if this passes more ports will do the same and then the damage of Southern California is on y'all hands. It will affect your family as well. So consider what is at stake here.

Communication from Public

Name: ABrown

Date Submitted: 06/27/2019 03:46 PM

Council File No: 19-0688

Comments for Public Posting: I'm a fourth generation longshoremen, a fourteen year casual hoping to become full time. Automation will destroy not only my future with having a happy successful life with my kids but it will also destroy my kids future and everything I'm trying to build for them. It's already heard enough now getting maybe one day a week and unemployment only goes so far. Taking our jobs away will mean more people will struggle and more people will become homeless. I have two beautiful boys that I raise on my own. Being the best mother and role model for my boys is all I can wish I could be for them. But when they see mom sad because this can change our whole future hurts like no other. My kids shouldn't have to worry about if will have food on the table or a roof over our heads or clothes on our backs because mom is doing everything she can to have a job and fight for our future. ABrown D4556

Communication from Public

Name: Susan L. McKenna

Date Submitted: 06/27/2019 03:49 PM

Council File No: 19-0688

Comments for Public Posting: I, Susan L McKenna, A resident of Wilmington for over 40years am writing in support of the ILWU. I ask you to Think about Our Communities, Local Businesses, Our Schools, Families, and Our Future. Automation of Kind to any terminal Will Hurt our economy and cause a ripple effect throughout our Surrounding Communities. Many of our small businesses depend greatly on the workers of the ILWU who patronize them. Support The Working Middle Class, We Pay Taxes ! We Buy Real Estate ! We Vote! Robots DONT!

Communication from Public

Name: Albert Saucedo

Date Submitted: 06/27/2019 03:58 PM

Council File No: 19-0688

Comments for Public Posting: Many of the goods that come thru the ports are also bought from the workers that work there when they go shopping with family. if there is no income for the workers because of automation. then how are we supposed to buy goods on our days off when we have family time to shop. it will be a very bad choice to cut jobs.

Communication from Public

Name: George and Vivian Malauulu

Date Submitted: 06/27/2019 04:04 PM

Council File No: 19-0688

Comments for Public Posting: Dear Mayor and Council Members: We are both registered members of ILWU Local 13 who not only work, but also live, and raise our four children in the Harbor Area of Los Angeles. We are home owners, tax payers, and law-abiding citizens who care deeply about our family, our community, and our jobs. For the viability of the future of this city and especially for the welfare of our children's futures, we beseech you to please veto this decision then remand it back to the Board of Harbor Commissioners for further consideration and hopefully, a denial. It is imperative that you also direct the Port of LA's leadership to think long and hard about how their current Master Plan allows for foreign companies to use automation to displace workers like us. By enabling foreign companies to replace us with artificial intelligence (robots) which will likely be operated from out of state and possibly even out of the country, Los Angeles and California will lose millions of dollars in income taxes that would otherwise benefit our schools, our fire and police departments, and other public and social services. Every single day that we work on the docks equals income tax dollars that are deposited into YOUR salaries and YOUR districts. Where will that money come from if we lose our jobs? How will city councils like this one function and how will cities like LA operate without the thousands of jobs that will be lost EACH DAY if yet another port terminal is allowed to automate? In addition to moving cargo safely and efficiently as proven by decades of port data, longshore workers also serve as the port's eyes and ears on the docks. Together with our fellow sisters and brothers, we consistently work on vessels, trains, and in yards where randomly visiting shipmates, outside truck drivers, and vendors have access around the clock. We have the experience to notice when something is not right and we know how to take appropriate action to alert those within the coast's chain of command. No robot has the awareness, intuition, or judgement that a "longie" has while working on any maritime operation on any waterfront terminal to make the type of quick decision that could possibly save lives, and perhaps even our economy. Further...please consider a city-wide initiative that will discourage retailers from utilizing automated operations that undermine our basic need for human interaction and a company's corporate responsibility to provide actual customer service. We

have children who are being cyber conditioned to push buttons rather than engage in dialogue. There is no eye contact being made with automated tellers and no conversations being had with attendants...both critical components to becoming socially conscious adults with ethical and moral regard for people, not profit. Thank you for considering our first-hand, frontline, in-the-trenches opinion as workers, residents, and parents. Respectfully Submitted, George and Vivian Malauulu (562) 572-7313 Attached is a photo of our two sons (ages 14 and 10) with a "robot" on the fateful day of the HC's vote.



Communication from Public

Name: Bill J McKenna

Date Submitted: 06/27/2019 04:17 PM

Council File No: 19-0688

Comments for Public Posting: I, Bill J McKenna, A resident of Wilmington for over 70 years A Retired Boss from US Borax Local # 20 am writing in support of the My Brothers and Sisters of ILWU. I ask you to Think about Our Communities, Local Businesses, Our Schools, Families, and Our Future. Automation of any Kind to any terminal Will Hurt our economy and cause a ripple effect throughout our Surrounding Communities. Many of our small businesses depend greatly on the workers of the ILWU who patronize them. Support The Working Middle Class, We Pay Taxes ! We Buy Real Estate ! We Vote! Robots DONT!

Communication from Public

Name: George and Vivian Malauulu
Date Submitted: 06/27/2019 04:27 PM
Council File No: 19-0688
Comments for Public Posting: Please refer to the attached letter. Thank you.

**E-SUBMITTED AS A PUBLIC COMMENT FOR THE FRIDAY, JUNE 28, 2019
LA CITY COUNCIL MEETING FOR AGENDA ITEM #52 – COUNCIL FILE: 19-0688**

Dear Mayor and Council Members:

We are both registered members of ILWU Local 13 who not only work, but also live, and raise our four children in the Harbor Area of Los Angeles. We are home owners, tax payers, and law-abiding citizens who care deeply about our family, our community, and our jobs.

For the viability of the future of this city and especially for the welfare of our children's futures, we beseech you to please veto this decision then remand it back to the Board of Harbor Commissioners for further consideration and hopefully, a denial.

It is imperative that you also direct the Port of LA's leadership to think long and hard about how their current Master Plan allows for foreign companies to use automation to displace workers like us. By enabling foreign companies to replace us with artificial intelligence (robots) which will likely be operated from out of state and possibly even out of the country, Los Angeles and California will lose millions of dollars in income taxes that would otherwise benefit our schools, our fire and police departments, and other public and social services.

Every single day that we work on the docks equals income tax dollars that are deposited into YOUR salaries and YOUR districts. Where will that money come from if we lose our jobs? How will city councils like this one function and how will cities like LA operate without the thousands of jobs that will be lost EACH DAY if yet another port terminal is allowed to automate?

In addition to moving cargo safely and efficiently as proven by decades of port data, longshore workers also serve as the port's eyes and ears on the docks. Together with our fellow sisters and brothers, we consistently work on vessels, trains, and in yards where randomly visiting shipmates, outside truck drivers, and vendors have access around the clock. We have the experience to notice when something is not right and we know how to take appropriate action to alert those within the coast's chain of command. No robot has the awareness, intuition, or judgement that a "longie" has while working on any maritime operation on any waterfront terminal to make the type of quick decision that could possibly save lives, and perhaps even our economy.

Further...please consider a city-wide initiative that will discourage retailers from utilizing automated operations that undermine our basic need for human interaction and a company's corporate responsibility to provide actual customer service. We have children who are being cyber conditioned to push buttons rather than engage in dialogue. There is no eye contact being made with automated tellers and no conversations being had with attendants...both critical components to becoming socially conscious adults with ethical and moral regard for people, not profit.

Thank you for considering our first-hand, frontline, in-the-trenches opinion as workers, residents, and parents.

Respectfully Submitted,

George and Vivian Malauulu
(562) 572-7313

Attached is a photo of our two sons (ages 14 and 10) with a "robot" on the fateful day of the HC's vote.



my name is "APM400"

don't Eat nor Sleep
don't have Family nor Friends
don't need Communities
don't need money to live Life
I don't need Medical Insurance
I don't pay TAXES

I may be slower than human's but who cares
right

#CommunitiesMatter
#NOAUTOMATION #ILWUSTRONG



**ILWU
STRONG**

SOLIDARITY WILL PREVAIL

WE support
the
ILWU
& they support
US

Communication from Public

Name: Luis Elliot

Date Submitted: 06/27/2019 05:23 PM

Council File No: 19-0688

Comments for Public Posting: Automation will destroy this community as it did in Detroit and Flint Michigan. Property values plummet, crime will increase, homelessness will increase, businesses will close, hardworking people will be people will be out of work. Automation is just bad for America.

Communication from Public

Name: Jose Garcia Jr

Date Submitted: 06/27/2019 05:39 PM

Council File No: 19-0688

Comments for Public Posting: Going forward with this issue will be detrimental to or communities. First handed effect is a lose of thousands of jobs and devastating health concerns. Second handed repercussions would have the opportunity to turn Los Angeles into a dying City which is happening around our nation. Don't let this happen to our city Thank you for your time

Communication from Public

Name: Richard S
Date Submitted: 06/27/2019 09:57 PM
Council File No: 19-0688

Comments for Public Posting: Another concern that has been grossly overlooked many citizens have over the implementation of these newer technologies and the internet of things is the Cyber security vulnerability aspect. In my opinion another crucial part of the conversation and dialogue should bring up defending from Cyber attacks and terrorists whoes aim is to stifle, shutdown, and otherwise try to damage the American economy where Cyber terrorists would target automated technologies. Just 2 years ago Maersk in particular was the target of a crippling random ware attack that shut down operations world wide across many ports. Just 2 years ago almost to the day 2017, June 27th, . According to an article from the LA times, . <https://www.latimes.com/business/la-fi-maersk-cyberattack-20170817-story.html> "A June cyberattack that snarled shipping terminal operations worldwide — and briefly shut down the Port of Los Angeles' largest cargo terminal — has cost the Danish shipping giant A.P. Moller-Maersk \$200 million to \$300 million, the company said this week. The unprecedented attack forced workers to improvise with Twitter, WhatsApp and Post-It notes as they struggled to get goods moving from ships to shore again, the company said." I think it was people, not the machines and computers that were hacked , but people that made sure the operations continue and had persevered. The article goes on to say "NotPetya exploited a vulnerability in unpatched Microsoft Windows operating systems and relied on a break-in technique that may have been stolen from the U.S. National Security Agency." . . . "Cyberattack cost Maersk as much as \$300 million and disrupted operations for 2 weeks? " Furthermore to refresh everyone's memory " At the Port of Los Angeles, Maersk's APM Terminal at Pier 400 was closed June 27 to July 1, leaving at least one anchored ship waiting in the harbor. Cargo operations ramped back up in subsequent days." Why would someone want to get rid of Dockworkers who are as Councilmember Joe Buscaino and LA County Supervisor Janice Hahn have previously stated, Docker workers are also extra eyes and ears in spotting suspicious cargo and reporting it to the authorities. Why have one less set of the human element to see something say something that could help prevent criminal activity and and be in the best interest of national security keeping the ports safer.? Furthermore according to OLLI PENTTILÄ CYBER THREATS IN MARITIME CONTAINER TERMINAL AUTOMATION SYSTEMS Master of Science Thesis 2016 Tampere University of Technology The implicationsfrom threat actor terrorists can cause disruptions to the economy and operations by via Cyber attacks " Motivation for interruption of container handling process can vary from random attacks coming from the Internet to cyber terrorism. Even hostile nations could be involved, which means that attacks can be highly sophisticated and persistent. Interrupting the process can be seen as a Denial-of-Service attack and indeed most attack vectors make use of typical DoS attack methods. Terminal automation systems are fairly susceptible to DoS attacks, because they typically rely on availability of all the components of the system. In most DoS cases a well-chosen target component can bring the entire system to a halt. In this regard EIS is critical: being the dedicated component to communicate with TOS, preventing the communication would stop CHEs from getting new job orders, thus leav- ing them idle. Consequences of a DoS attack would be mostly financial, but physical damage due to collisions is possible as well. CHEs have advanced safety features to prevent any collisions, but cyber attackers may be able to disable them or cause unusual situations that haven't been taken into account when designing these features." (2016.). https://trepo.tuni.fi/bitstream/handle/123456789/23737/Penttila.pdf%3Fsequence%3D3&sa=U&ved=2ahUKEwj_zsj024bjAhWIXM0KHd9FDQQFjAFegQIBxAB&usg=AOvVaw1tbF3pL17XUOaA0acAU7Xm Man power in this context has been proven to work, their system has already been proven to fail

Communication from Public

Name: Jenn Furman

Date Submitted: 06/27/2019 10:00 PM

Council File No: 19-0688

Comments for Public Posting: We need a booming economy, not an economy that goes boom. Having a foreign conglomerate disintegrate American jobs on American soil will do just that. Robots don't pay taxes, therefore civil servants, the state, or the feds don't get paid either. The middle class is almost obsolete. They won't replace the jobs they take away. Surrounding cities will become wastelands. I ask you to please take into consideration all of the people that will be affected by the 5G death assault and support your constituents.

Communication from Public

Name: Malena Garcia

Date Submitted: 06/27/2019 10:04 PM

Council File No: 19-0688

Comments for Public Posting: Dear Council Members, As a daughter of a Longshoreman, I understand and feel for those who fear of losing their job. The I.L.W.U. has provided many employment opportunities to men and women in the surrounding area. Replacing people with automation is social injustice. You are taking away an opportunity for these workers to be self-sufficient. You can expect to see a downfall in the economy. You need to make money in order to spend money. There are other ways for Americans to solve our pollution issue. Before moving forward, reflect how many will no longer have a steady income and health insurance. How is this moral practice?

Communication from Public

Name: Angie Medina

Date Submitted: 06/27/2019 10:14 PM

Council File No: 19-0688

Comments for Public Posting: My name is, Angie Medina and I have lived in San perdo for 38 years. I am currently employed as a ILWU/Casual and LMT for a local Chiropractic office and will be affected by the harbor commission's decision on the appeal of the level 1 coastal development permit 18-25. Therefore I am writing to express my support for city council vetoing the Port of Los Angeles Harbor Commission's decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/ Maersk and automation of pier 400. The automation of any industry should never be taken lightly. Our city officials should always take the time to thoroughly weigh pros and cons using all data at their disposal before approving any permits that will eliminate jobs, and thereby protect the interests of communities and the taxpayers that they serve. It is my belief that the port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project, which APM/ MAERSK knows will have adverse affects on the surrounding communities. Companies should be able to do everything they can to remain competitive, however, not at the expense of working class families and not by causing extensive socio-economic and environmental damage to surrounding communities through the elimination of good paying jobs, and the introduction of technologies for which we have yet to fully identify the long term health effects. There is now a multitude of proven safe technologies readily available that can meet or exceed the standards set forth in the CAAP, with zero or near-zero emissions, proving that labor, productivity, and the environment do not need to be sacrificed in order to save a dollar, and still allowing the ports of Los Angeles and Long Beach to remain competitive. The loss of jobs will be felt throughout, but not limited to, surrounding communities and counties. Many small businesses which rely on their longshore clientele's patronage will suffer a loss of revenue, and not to mention the cities and state's loss of tax revenue. Our communities are already plagued with unemployment and homelessness, and allowing the Harbor Commission's decision to stand will only add to it. The nation's population is constantly growing, but how can we sustain a healthy economy if we lose all labor jobs to automation? How will the average American afford to buy a home, or the very goods

that come in through our ports? A high quality of life should not be limited to those who have the means to become engineers, attorneys, or doctors, therefore a thriving and stable society must maintain a healthy blend of skilled and unskilled workers in every profession. This is why the original level 1 Coastal development permit APM/Maersk should have been denied, and APM/Maersk should have been required to submit extensive socio-economic and environmental impact reports along with filling for a level 2 coastal development permit and fully disclosing their intentions for choosing to automate over finding a solution that befits labor, the company, and the local communities. We, your constituents urge you to veto this appeal lest we suffer the same fate as Detroit.

Communication from Public

Name: Johnny Crenshaw
Date Submitted: 06/27/2019 10:17 PM
Council File No: 19-0688

Comments for Public Posting: My name is, Johnny Crenshaw and I have lived in the harbor area for 53 years, my entire life. I am currently employed as a longshoreman and will be affected by the harbor commission's decision on the appeal of the level 1 coastal development permit 18-25. Therefore I am writing to express my support for city council vetoing the Port of Los Angeles Harbor Commission's decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/ Maersk and automation of pier 400. The automation of any industry should never be taken lightly. Our city officials should always take the time to thoroughly weigh pros and cons using all data at their disposal before approving any permits that will eliminate jobs, and thereby protect the interests of communities and the taxpayers that they serve. It is my belief that the port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project, which APM/ MAERSK knows will have adverse affects on the surrounding communities. Companies should be able to do everything they can to remain competitive, however, not at the expense of working class families and not by causing extensive socio-economic and environmental damage to surrounding communities through the elimination of good paying jobs, and the introduction of technologies for which we have yet to fully identify the long term health effects. There is now a multitude of proven safe technologies readily available that can meet or exceed the standards set forth in the CAAP, with zero or near-zero emissions, proving that labor, productivity, and the environment do not need to be sacrificed in order to save a dollar, and still allowing the ports of Los Angeles and Long Beach to remain competitive. The loss of jobs will be felt throughout, but not limited to, surrounding communities and counties. Many small businesses which rely on their longshore clientele's patronage will suffer a loss of revenue, and not to mention the cities and state's loss of tax revenue. Our communities are already plagued with unemployment and homelessness, and allowing the Harbor Commission's decision to stand will only add to it. The nation's population is constantly growing, but how can we sustain a healthy economy if we lose all labor jobs to automation? How will the average American afford to buy a home, or the very goods that come in through our ports? A high quality of life should not

be limited to those who have the means to become engineers, attorneys, or doctors, therefore a thriving and stable society must maintain a healthy blend of skilled and unskilled workers in every profession. This is why the original level 1 Coastal development permit APM/Maersk should have been denied, and APM/Maersk should have been required to submit extensive socio-economic and environmental impact reports along with filling for a level 2 coastal development permit and fully disclosing their intentions for choosing to automate over finding a solution that befits labor, the company, and the local communities. We, your constituents urge you to veto this appeal lest we suffer the same fate as Detroit.

Communication from Public

Name: Valerie Contreras
Date Submitted: 06/27/2019 10:17 PM
Council File No: 19-0688
Comments for Public Posting: Please see the attached letter opposing the Port Automation for APM Terminals pier 400 Permit CF 19-0688

Council File: 19-0688

Coastal Development Permit No. 18-25/Board of Harbor Commissioners/denial of Appeal/Charter

District 15 Joe Buscaino

Name: Valerie Contreras

Date submitted: 6/23/19

Council File No: 19-0688

Comments for Public Posting:

Dear Honorable Chairman Wesson, Los Angeles City Council members,

On February 27, 2019 The Wilmington Neighborhood Council filed a Resolution on behalf of stakeholders and Labor. It was submitted to the Board of Harbor Commissioners through the council file system. The Resolution urges the Harbor Commissioners to table the Level 1 Coastal Development Permit 18-25 **until an agreement has been secured between the Terminal Operator and the (ILWU) International Longshoreman and Warehouseman's Union. (Dock work Labor force)**

On Tuesday, April 16, 2019 the Board of Harbor Commissioners held an Appeal Hearing on the Level 1 Coastal Development Permit No. 18-25. In attendance were over 1500 ILWU members, local politicians, community leaders, residents and business owners. All in support of Labor.

The Mayor sent a letter which supported Labor and asked the Board of Harbor Commissioners to hold off on granting the permit to APM Terminals until they talk to the Union about securing the jobs.

LA Supervisor Janice Hann, Council member Joe Buscaino, State Assemble member Mike Gibson, Congresswoman Nanette Barragan, Senator Bradford and many other upstanding leaders strongly supported Labor in the oldest industry of Trade.

This Permit is not about allowing the Terminals to bring in Automation. Although it's NOT preferred, we know it's coming. We are simply asking that they hold off on granting the permit to automate **until they come to an agreement with the Union workers** who helped build this great Port of Los Angeles.

A large majority of the dock workers live her where the Port started its humble beginnings. With the help of Phineas Banning, Los Angeles and the Port were connected. **The Port was to give back to the community by securing good jobs to local residents.** The Union and the Terminal Operators have always worked together for the good of the U.S. Economy and Global Trade. The foreign owned Operator is NOT upholding the long- standing practice. This will have a huge effect on the continued growth of the Port. It is the experience of this Labor force and Terminal Operators who have together grown this World Class Port. What happens here in the largest man made Port in the world, will affect all other Ports of the World as they watch. All goods and services will be affected.

The very people who gave their lives building the Port are now being driven out of jobs by GREED! We already have enough homeless due to job loss etc. All we ask for is that they come to an agreement to secure jobs. **These Terminal Operators generate billions of dollars and the wages we make are just a penny in the bucket.**

Please support the hard- working class citizens of Los Angeles and please throw out this unfair ruling and Veto it or do anything you can to help us!

Best Regards, Valerie Contreras, Live, Work, Own, Community interest, Angelino

Communication from Public

Name: Paul Simmonds

Date Submitted: 06/27/2019 10:18 PM

Council File No: 19-0688

Comments for Public Posting: Dear honorable members, You have a tremendous responsibility to take care of the citizens & businesses small and large. I am in my 15th year as a dock worker. A casual dock worker. I do not live in the San Pedro or Long Beach areas. I live 65 miles away. While this may not seem important, I guarantee that if automation takes hold in the coming years, displacing workers, my spending dollars while on the job will go elsewhere as I will no longer have a reason to be there. I purchase food, gas, and do shopping in these cities everyday I work. If the current course of automation proceeds, I can only imagine the devastating effect it will have on these communities. You have a great responsibility, and to create a positive legacy that your children and community will be proud of. Do not turn your backs upon the people that put you in this position to represent them. Do not turn these communities into another Detroit. It is never wrong to do the right thing. It is also never right to do the wrong thing. Do the right thing, stand up to big business. They won't re-elect you, only the people can do that. CHARACTER COUNTS.

Communication from Public

Name: Vincent

Date Submitted: 06/27/2019 10:19 PM

Council File No: 19-0688

Comments for Public Posting: So here's something I wrote that can be submitted to My name is, Vincent Contreras, and I have lived in San Pedro for 20 years and Wilmington for 16 years. I am currently employed as a Longshoreman and will be affected by the harbor commission's decision on the appeal of the level 1 coastal development permit 18-25. Therefore I am writing to express my support for city council vetoing the Port of Los Angeles Harbor Commission's decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/ Maersk and automation of pier 400. The automation of any industry should never be taken lightly. Our city officials should always take the time to thoroughly weigh pros and cons using all data at their disposal before approving any permits that will eliminate jobs, and thereby protect the interests of communities and the taxpayers that they serve. It is my belief that the port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project, which APM/ MAERSK knows will have adverse affects on the surrounding communities. Companies should be able to do everything they can to remain competitive, however, not at the expense of working class families and not by causing extensive socio-economic and environmental damage to surrounding communities through the elimination of good paying jobs, and the introduction of technologies for which we have yet to fully identify the long term health effects. There is now a multitude of proven safe technologies readily available that can meet or exceed the standards set forth in the CAAP, with zero or near-zero emissions, proving that labor, productivity, and the environment do not need to be sacrificed in order to save a dollar, and still allowing the ports of Los Angeles and Long Beach to remain competitive. The loss of jobs will be felt throughout, but not limited to, surrounding communities and counties. Many small businesses which rely on their longshore clientele's patronage will suffer a loss of revenue, and not to mention the cities and state's loss of tax revenue. Our communities are already plagued with unemployment and homelessness, and allowing the Harbor Commission's decision to stand will only add to it. The nation's population is constantly growing, but how can we sustain a healthy economy if we lose all labor jobs to automation? How will the average American afford to buy a home, or the very goods

that come in through our ports? A high quality of life should not be limited to those who have the means to become engineers, attorneys, or doctors, therefore a thriving and stable society must maintain a healthy blend of skilled and unskilled workers in every profession. This is why the original level 1 Coastal development permit APM/Maersk should have been denied, and APM/Maersk should have been required to submit extensive socio-economic and environmental impact reports along with filling for a level 2 coastal development permit and fully disclosing their intentions for choosing to automate over finding a solution that befits labor, the company, and the local communities. We, your constituents urge you to veto this appeal lest we suffer the same fate as Detroit.

Communication from Public

Name:

Date Submitted: 06/27/2019 10:23 PM

Council File No: 19-0688

Comments for Public Posting: The I.L.W.U has so many opportunities for working class americans who don't have much. Families that were started early and with only a high school diploma this job gave the opportunity to put a roof over their heads, to put clothes on their backs, and to put food on the table. We will definitely see a decline in our economy. Many people think that numbers on a billboard in wall street are what help run this country; but what helps run this country is the working class citizens. It is those citizens that need new clothes, new shoes, new tools, a freakin haircut. You take those jobs away and those businesses around the surrounding areas would also see a decline in sales. It is the working class citizens who help run our economy. We make money to spend money. What do you council members think is going to happen when the automations happen? Just how many americans would be affected by this?

Communication from Public

Name: Carina Ruiz

Date Submitted: 06/27/2019 10:36 PM

Council File No: 19-0688

Comments for Public Posting: My name is, Carina Ruiz, and I have lived in San Pedro my entire life. I am currently employed as a Casual for ILWU and will be affected by the harbor commission's decision on the appeal of the level 1 coastal development permit 18-25. Therefore I am writing to express my support for city council vetoing the Port of Los Angeles Harbor Commission's decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/ Maersk and automation of pier 400. The automation of any industry should never be taken lightly. Our city officials should always take the time to thoroughly weigh pros and cons using all data at their disposal before approving any permits that will eliminate jobs, and thereby protect the interests of communities and the taxpayers that they serve. It is my belief that the port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project, which APM/ MAERSK knows will have adverse affects on the surrounding communities. Companies should be able to do everything they can to remain competitive, however, not at the expense of working class families and not by causing extensive socio-economic and environmental damage to surrounding communities through the elimination of good paying jobs, and the introduction of technologies for which we have yet to fully identify the long term health effects. There is now a multitude of proven safe technologies readily available that can meet or exceed the standards set forth in the CAAP, with zero or near-zero emissions, proving that labor, productivity, and the environment do not need to be sacrificed in order to save a dollar, and still allowing the ports of Los Angeles and Long Beach to remain competitive. The loss of jobs will be felt throughout, but not limited to, surrounding communities and counties. Many small businesses which rely on their longshore clientele's patronage will suffer a loss of revenue, and not to mention the cities and state's loss of tax revenue. Our communities are already plagued with unemployment and homelessness, and allowing the Harbor Commission's decision to stand will only add to it. The nation's population is constantly growing, but how can we sustain a healthy economy if we lose all labor jobs to automation? How will the average American afford to buy a home, or the very goods that come in through our ports? A high quality of life should not

be limited to those who have the means to become engineers, attorneys, or doctors, therefore a thriving and stable society must maintain a healthy blend of skilled and unskilled workers in every profession. This is why the original level 1 Coastal development permit APM/Maersk should have been denied, and APM/Maersk should have been required to submit extensive socio-economic and environmental impact reports along with filling for a level 2 coastal development permit and fully disclosing their intentions for choosing to automate over finding a solution that befits labor, the company, and the local communities. We, your constituents urge you to veto this appeal lest we suffer the same fate as Detroit.

Communication from Public

Name: Jacqueline Rivera
Date Submitted: 06/27/2019 11:15 PM
Council File No: 19-0688

Comments for Public Posting: I am NOT a union member who pays union dues. I am a concerned resident of Wilmington, Ca. In my city, there is already a homeless problem and lack of good paying jobs for the community. I feel that if the ports went automated, it would have a terrible affect on the community. My fear is that history is going to repeat it's self. Let's try to learn a lesson from Detroit, MI (formally known as "Motor City") and what automation gave them. Increase in crime, massive unemployment, and Real Estate Value for as little as \$760 for a house per Zillow.com. Currently, 1/4 of the city is considered a ghost town. If the ports did go automated, I would highly consider selling my property within the next 5-10 years as to try to avoid loss of property value and move out of LA county... possibly out of state. Please do not let Los Angeles, Ca. become another Detroit, MI.

Communication from Public

Name: Sara Holland

Date Submitted: 06/27/2019 11:17 PM

Council File No: 19-0688

Comments for Public Posting: There's so much more to all of this than just abiding by a contract and allowing a company to automate. It's just the beginning if you keep allowing large corporations to take away from the people, their profit margin is remarkable as it is, this is nothing but greed and at the cost of who? The citizens of the surrounding areas. There's a very simple right vs wrong situation here and in no means could it benefit a community, only several individuals. The impact will be a domino effect, one to the next all doing the same thing. At what point do you protect the people and the community and their livelihoods? Now. Before it's too late.

Communication from Public

Name: Shelly Lipanovich

Date Submitted: 06/27/2019 11:33 PM

Council File No: 19-0688

Comments for Public Posting: Council Members, I urge you to think about the detrimental impacts this would have on our local communities. It will also impact you as our leaders. The money received in donations from local businesses and organizations can be greatly diminished. Our neighborhood councils receive public funds of approx. \$37K each year to support their activities. With job losses they will no longer be able to receive such funds. Many local business owners are Port workers. They contribute to our surrounding communities hiring people, paying taxes, buying Real Estate, buying cars, and getting involved in local events. This will also be greatly diminished. Do you want another Detroit? Homelessness and violent crime is already through the roof. Our local police department has just received more funds to operate and protect our communities. Can you imagine where these funds would be coming from if the people were not contributing into our society? Commissioner Ed Renwick said he was following the law to approve the permit. Which law exactly is he following? Is he following the permit to secure his own debts? He is in business to get rich and that was a quote by Ed himself. A Level 1 permit is MINOR in nature and does NOT require a public hearing. Our public hearings brought out more than 2k people and beyond full capacity was reached. We are voicing our concerns about our community. Maersk lied about it being a level 1 permit. They did not fill out the form correctly and fully. A level 1 permit requires no adverse environmental impacts. What research studies has Maersk done to prove their point? I can't imagine how the elimination of our Port jobs would not have any adverse impacts on our environment. Destroying communities, eliminating jobs for foreign greed, destroying families and local businesses patronized by port workers is not impactful? This has been nothing but minor and we've had several public hearings about this issue. Where have our ethics gone? Quote from Commissioner Lucia Linares, "you can't leave behind those people who depend on the port for their livelihoods." "It's a delicate balance and there is no simple answer for that." She threw her community under the bus when she voted against us. Where are her ethics as well? How much did she get paid to turn back on her word? John Ochs said Maersk does not intend to use 5G technology. Kalmar smart solutions will be run off 5G. EM fields do not depend on external power density

but rather depends on dielectric field inside the body. When the body is exposed to high frequency waves, the waves are transferred to the body's molecules resulting in accelerating ions that collide with other ions altering the cell membrane. Scientists have found long term cell phone usage has led to a rise in Alzheimer, migraines, infertility, cancer, eye defects, anxiety, insomnia and depression. Our current cell phone usage is 4G. With cancer already on the rise why are we putting the people at further risk. For profits that's why. We need to put the PEOPLE of the United States first before the pocketbooks. We need to protect the middle class who contribute most to our economy. Supporting the top 1% and ignoring the rest is not the answer. Please consider all options and further investigation is needed before moving forward.

Communication from Public

Name: Russell Cole

Date Submitted: 06/27/2019 11:40 PM

Council File No: 19-0688

Comments for Public Posting: My name is, David Torres, and I have lived in wilmington for 3 years. I am currently employed as a Longershireman and will be affected by the harbor commission's decision on the appeal of the level 1 coastal development permit 18-25. Therefore I am writing to express my support for city council vetoing the Port of Los Angeles Harbor Commission's decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/ Maersk and automation of pier 400. The automation of any industry should never be taken lightly. Our city officials should always take the time to thoroughly weigh pros and cons using all data at their disposal before approving any permits that will eliminate jobs, and thereby protect the interests of communities and the taxpayers that they serve. It is my belief that the port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project, which APM/ MAERSK knows will have adverse affects on the surrounding communities. Companies should be able to do everything they can to remain competitive, however, not at the expense of working class families and not by causing extensive socio-economic and environmental damage to surrounding communities through the elimination of good paying jobs, and the introduction of technologies for which we have yet to fully identify the long term health effects. There is now a multitude of proven safe technologies readily available that can meet or exceed the standards set forth in the CAAP, with zero or near-zero emissions, proving that labor, productivity, and the environment do not need to be sacrificed in order to save a dollar, and still allowing the ports of Los Angeles and Long Beach to remain competitive. The loss of jobs will be felt throughout, but not limited to, surrounding communities and counties. Many small businesses which rely on their longshore clientele's patronage will suffer a loss of revenue, and not to mention the cities and state's loss of tax revenue. Our communities are already plagued with unemployment and homelessness, and allowing the Harbor Commission's decision to stand will only add to it. The nation's population is constantly growing, but how can we sustain a healthy economy if we lose all labor jobs to automation? How will the average American afford to buy a home, or the very goods that come in through our ports? A high quality of life should not

be limited to those who have the means to become engineers, attorneys, or doctors, therefore a thriving and stable society must maintain a healthy blend of skilled and unskilled workers in every profession. APM/Maersk already enjoys the lowest Container terminal rent in the harbor, a huge competitive advantage, but even that discounted rent will fall when production drops. Currently Container piles are 6 tall and 6 wide (36 total), the new equipment can only go 3 tall and 3 wide (9 total) that is a 75% drop in pile sizes. The McKensy automated terminal report mentions that the Hammerhead (Quay) cranes will also be half as productive. Overall production will drop significantly. This is why the original level 1 Coastal development permit APM/Maersk should have been denied, and APM/Maersk should have been required to submit extensive socio-economic and environmental impact reports along with filling for a level 2 coastal development permit and fully disclosing their intentions for choosing to automate over finding a solution that befits labor, the company, and the local communities. I do think the City Counsel should have a moratorium on using inefficient drivelers machines until a realistic economic impact report is completed and reviewed. We, your constituents urge you to veto this appeal lest we suffer the same fate as Detroit.

Communication from Public

Name: Sean Montoya

Date Submitted: 06/28/2019 12:08 AM

Council File No: 19-0688

Comments for Public Posting: I am a resident of the Harbor Area region of Los Angeles. I am deeply disturbed by the biggest shipping company in the world automating tax payer lands and putting hundreds out of work. It will start with hundreds of jobs being lost and will grow to the thousands once other companies do the same. Maersk is a foreign company that leases the land at pier 400, and last year they were hacked and it cost them millions. It was man power and labor that kept them moving. Allowing the biggest shipping company in Los Angeles to automate is a big mistake to our economy. If they were hacked once, why can't it happen again? California depends too much on our ports to let it be ran by machines. There are currently 10,000 workers who depend on the port to make a living, if they suddenly become jobless, the Harbor Area region will turn into a Detroit. Machines don't vote or pay taxes, machines don't shop at stores or eat at restaurants. The port of Los Angeles is a very valuable resource to our economy to gamble with in regards to new technology. I.e '5G networks' Ap Moller & Maersk have not provided enough details on how they will use a new technology while keeping the port lucrative. As it is, the barriers and structures they want to build will eliminate space. Less space means less containers which ultimately means less revenue for our city. Also, the Port of Los Angeles continues to break records in moving cargo. By allowing this terminal to automate is a step backwards to our thriving economy. Thank you, Sean Montoya

Communication from Public

Name: David Galuppo

Date Submitted: 06/28/2019 12:08 AM

Council File No: 19-0688

Comments for Public Posting: I have been a resident of San Pedro for 42 years. My family migrated to San Pedro in the early sixties from Italy like many others because of the great fishing industry San Pedro once had. During that time there was so many options of employment for people in this busy port town between the many shipyards, canneries, hundreds of fishing boats, and longshoring. Throughout the years of my childhood I've seen all of those great jobs that made San Pedro the town that it is now dwindle away to nothing except for longshoring. When the shipyards and canneries closed and went over seas because of cheaper labor a lot of people turned to longshoring for their next career. I grew up working with my dad on a fishing boat and loved being on the ocean and would have made fishing my career, but as I got older I realized that fishing was a dying industry and I could never make a living to support a family being a fisherman. Lucky for me I was able to get my casual card and after years of being on call as a temporary I became a full time longshoreman and have been working for the last 22 years. I've seen the port change drastically in those 22 years some good and some bad. It has been great with all the new container terminals being built and it has created a lot of work, but little by little ours jobs have been taken away by computers and automation. If we keep allowing foreign companies automate our terminals and get rid of these great paying jobs history will repeat itself and another industry will be lost due to foreign interests. Unlike the people before me who had another option of employment in this town when they lost their job this generation won't be so lucky. We will have to move out of San Pedro to find work. I ask the City Council to please understand that there is thousands of people that will be affected by this decision families will be torn apart, businesses will be lost in the communities, and ripple affect will be felt throughout nation. Thank you.

Communication from Public

Name: Pedro Magana

Date Submitted: 06/28/2019 12:13 AM

Council File No: 19-0688

Comments for Public Posting: Automation is a race to the bottom!!! Once corporations get what they want then who will buy their goods? When people have no jobs, who will pay their rent? Who will pay taxes? Who will pay for family health care? Automation isn't only cutting cost it is also CUTTING the family structure at home, family financial security and placing them in danger of homelessness! Automation will cost 10 times more in the long run, the day the damage is done will be the day the government will see what a social disaster automation really is. Automation is replacing the human factor, replacing us the machines will do the work because they will be permanently installed at job sites, but us the people will be permanently left in the streets! There's no way around it robots should not replace humans, the government needs to set limits on automation and guidelines that consider the negative effects on the surrounding communities. Communities are what drive the economy, we the people are the community...

Communication from Public

Name: Valerie Contreras

Date Submitted: 06/28/2019 12:15 AM

Council File No: 19-0688

Comments for Public Posting: Council File: 19-0688 Coastal Development Permit No. 18-25/Board of Harbor Commissioners/denial of Appeal/Charter District 15 Joe Buscaino Name: Valerie Contreras Date submitted: 6/23/19 Council File No: 19-0688 Comments for Public Posting: Reference: City Council action requested to assert jurisdiction over the Board of Harbor Commissioners June 19th action to deny an appeal on the Coastal Development permit No 18-25 and refer it back to the Port Commission. Dear Honorable Chairman Wesson and the Los Angeles City Council members, On February 27, 2019 The Wilmington Neighborhood Council filed a Resolution on behalf of stakeholders and Labor. It was submitted to the Board of Harbor Commissioners through the council file system. The Resolution urges the Harbor Commissioners to table the Level 1 Coastal Development Permit 18-25 until an agreement has been secured between the Terminal Operator and the (ILWU) International Longshoreman and Warehouseman's Union. (Dock work Labor force) On Tuesday, April 16, 2019 the Board of Harbor Commissioners held an Appeal Hearing on the Level 1 Coastal Development Permit No. 18-25. In attendance were over 1500 ILWU members, local politicians, community leaders, residents and business owners. All in support of Labor. The Mayor sent a letter which supported Labor and asked the Board of Harbor Commissioners to hold off on granting the permit to APM Terminals until they talk to the Union about securing their jobs. LA Supervisor Janice Hann, Council member Joe Buscaino, State Assemble member Mike Gibson, Congresswoman Nanette Barragan, Senator Bradford and many other upstanding leaders strongly supported Labor in the oldest industry of Trade. On June 19, 2019 the Board of Harbor Commissioners approved the permit 18-25 and the ILWU appealed the approval. This Permit is not about allowing the Terminals to bring in Automation. Although it's NOT preferred, we know it's coming. We are simply asking that they hold off on granting the permit to automate until they come to an agreement with the Union workers who helped build this great Port of Los Angeles. A large majority of the dock workers live her where the Port started its humble beginnings. With the help of Phineas Banning, Los Angeles and the Port were connected. The Port was to give back to the community by securing good jobs to local

residents. The Union and the Terminal Operators have always worked together for the good of the U.S. Economy and Global Trade. The foreign owned Operator is NOT upholding the long-standing practice. This will have a huge effect on the continued growth of the Port. It is the experience of this Labor force and Terminal Operators who have together grown this World Class Port. What happens here in the largest man made Port in the world, will affect all other Ports of the World as they watch. All goods and services will be affected. The very people who gave their lives building the Port are now being driven out of jobs by GREED! We already have enough homeless due to job loss etc. All we ask for is that they come to an agreement to secure jobs. These Terminal Operators generate billions of dollars and it's only fair that they give back to the people of Los Angeles. Please support the hard- working class of Los Angeles and please assert jurisdiction over the Board of Harbor Commissioners June 19th action to deny an appeal on the Coastal Development permit No 18-25 and refer it back to the Port Commission. Best Regards, Valerie Contreras, I Live, Work, Own, serve my community, Angelino, ILWU member

Council File: 19-0688

Coastal Development Permit No. 18-25/Board of Harbor Commissioners/denial of Appeal/Charter

District 15 Joe Buscaino

Name: Valerie Contreras

Date submitted: 6/23/19

Council File No: 19-0688

Comments for Public Posting:

Reference: City Council action requested to assert jurisdiction over the Board of Harbor Commissioners June 19th action **to deny an appeal on the Coastal Development permit No 18-25** and refer it back to the Port Commission.

Dear Honorable Chairman Wesson and the Los Angeles City Council members,

On February 27, 2019 The Wilmington Neighborhood Council filed a Resolution on behalf of stakeholders and Labor. It was submitted to the Board of Harbor Commissioners through the council file system. The Resolution urges the Harbor Commissioners to table the Level 1 Coastal Development Permit 18-25 **until an agreement has been secured between the Terminal Operator and the (ILWU) International Longshoreman and Warehouseman's Union. (Dock work Labor force)**

On Tuesday, April 16, 2019 the Board of Harbor Commissioners held an Appeal Hearing on the Level 1 Coastal Development Permit No. 18-25. In attendance were over 1500 ILWU members, local politicians, community leaders, residents and business owners. All in support of Labor.

The Mayor sent a letter which supported Labor and asked the Board of Harbor Commissioners to hold off on granting the permit to APM Terminals until they talk to the Union about securing their jobs.

LA Supervisor Janice Hann, Council member Joe Buscaino, State Assemble member Mike Gibson, Congresswoman Nanette Barragan, Senator Bradford and many other upstanding leaders strongly supported Labor in the oldest industry of Trade.

On June 19, 2019 the Board of Harbor Commissioners approved the permit 18-25 and the ILWU appealed the approval.

This Permit is not about allowing the Terminals to bring in Automation. Although it's NOT preferred, we know it's coming. We are simply asking that they hold off on granting the permit to automate **until they come to an agreement with the Union workers** who helped build this great Port of Los Angeles.

A large majority of the dock workers live her where the Port started its humble beginnings. With the help of Phineas Banning, Los Angeles and the Port were connected. **The Port was to give back to the community by securing good jobs to local residents.** The Union and the Terminal Operators have always worked together for the good of the U.S. Economy and Global Trade. The foreign owned Operator is NOT upholding the long- standing practice. This will have a huge effect on the continued growth of the Port. It is the experience of this Labor force and Terminal Operators who have together grown this World Class Port. What happens here in the largest man made Port in the world, will affect all other Ports of the World as they watch. All goods and services will be affected.

The very people who ***gave their lives*** building the Port are now being driven out of jobs by GREED! We already have enough homeless due to job loss etc. All we ask for is that they come to an agreement to secure jobs. **These Terminal Operators generate billions of dollars it's only fair that they give back to the people of Los Angeles.**

Please support the hard- working class of Los Angeles and please assert jurisdiction over the Board of Harbor Commissioners June 19th action to deny an appeal on the Coastal Development permit No 18-25 and refer it back to the Port Commission.

Best Regards, Valerie Contreras, I Live, Work, Own, serve my community, Angelino, ILWU member

Communication from Public

Name: Daniel Ho-Ching

Date Submitted: 06/28/2019 12:33 AM

Council File No: 19-0688

Comments for Public Posting: It's beyond my understanding as to why we are having to go through such lengths to fight and petition for something that seems so common sensical. Keep the jobs in the hands of humans. Automation will bring so much destruction and disruption in the surrounding communities and send a ripple affect throughout Southern California. Robots don't run communities, humans do! With automation comes desolation. How then can we run communities, keeping them alive if we as individuals that make up these communities don't have jobs? Do the right thing. Keep the ports "human-full" and "robot-less".

Communication from Public

Name:

Date Submitted: 06/28/2019 06:30 AM

Council File No: 19-0688

Comments for Public Posting: Please stop port of LA from automating I live in the city of Wilmington and know a lot of people with businesses that are running because of the longshoreman that go there daily for lunch. It will cause severe impact to the surrounding communities and people will lose their homes. I am a homeowner and feel that my property value will decline if people lose their jobs and have to be forced to moved to different states to look for work at other ports and leave the surrounding communities like ghost towns.

Communication from Public

Name:

Date Submitted: 06/28/2019 06:42 AM

Council File No: 19-0688

Comments for Public Posting: If automation moves forward with pier 400 it will eliminate so many jobs and all the local businesses that are supporting us in these trying times , we will not be able to afford to return the the favor , robots do not spend money in the community , robots do not pay taxes , robots do not pay union dues!

Communication from Public

Name:

Date Submitted: 06/28/2019 06:52 AM

Council File No: 19-0688

Comments for Public Posting: Please attach the following letter to CF#19-0688

As a stakeholder and lifetime resident of Wilmington I ask that the City Council assert jurisdiction over the Board of Harbor Commissioners June 19th action to deny an appeal on Coastal Development Permit No 18-25 and refer it back to the Port Commission. I also ask that a formal request be made by our local officials to have Homeland Security, NSA and EPA weigh in on the security and environmental issues outlined below.

History

It is well documented that Los Angeles is suffering from widespread homelessness. One in nine jobs in the five-county Southern California region is now connected to the San Pedro Bay Port Complex, which includes the Port of Los Angeles and its neighboring Port of Long Beach. The San Pedro Bay Port Complex wields tremendous economic impact, generating employment for nearly 3 million Americans nationwide.¹ Should this permit be allowed to proceed in its current state it will devastate the economy even further adding to an already overly burdened social system potentially adding more to the growing numbers of those who can not afford to live in Los Angeles.

In January 2019, a Level I Coastal Development Permit (CDP 18-25) allowing APM to install charging stations for battery-electric powered equipment, scaffolding to create a vertical racking system for the refrigerated containers, traffic barriers and fencing for drayage hauler safety, small antennas for WiFi, and related infrastructure.

The Executive Director found that the proposed development conforms to the certified Port of Los Angeles Master Plan, as amended, and the California Coastal Act of 1976, as amended. He further found that the proposed development is consistent with the project description listed on the amended Application for Port Permit No. 181108-176. The proposed development complies with the requirements of the California Environmental Quality Act. This decision is flawed as it does not address major security concerns, nor does it address economic, health and environmental concerns with 5G technology which are also part of the Port Master Plan and CEQA

The Failure to address Security Concerns and How the Cloud, IoT, Big Data, Data Centers and automation work hand and hand.

It is the intention of APM to fully Automate Pier 400. This would entail a Mesh Wireless Network utilizing 5G technology. Multiple 5G antennas would need to be installed to ensure that 5G technology would work properly. This wireless technology has many security, safety and health issues that have not been properly addressed.

Security Issues

Will APM utilize IoT technology in a cloud environment? If so, who will be the cloud provider and are their Data Centers located in the US? If not in the US then where are they located and who has or will be contracted to maintain these Data Centers? What type of sensors and/or actuators will be used? What data is being stored and kept on a long-term basis? Who will have access to this data? If storing info in cloud, is data being stored in multiple locations around the globe? As a Port that is vital to the economic stability to this nation and under protection of Homeland Security what security measures are in place

¹ <https://www.portoflosangeles.org/about>

and has the NSA and Homeland Security been consulted for such a large project? Although within the Port of Los Angeles there is one terminal Trapac that has implemented some forms of automation they are not to the degree or magnitude of APM. Furthermore, Trapac is local and headquartered within the United States and subject to its laws and jurisdiction. This is not the case with Pier 400. Trapac Terminal is approximately 173 acres whereas APM Pier 400 is slightly over 500 acres. Trapac is headquartered in Wilmington, CA. APM is headquartered in Denmark. Trapac is not utilizing an untested 5G technology that will be emitting large quantities of radiation RMF/RFR. This is not to say that new technologies and partnerships should not be fostered. They should! It does mean however that it is prudent to take all precautions necessary to protect our harbors and ports. There has been absolutely no discussion on how containers and potential threats will be assessed in a fully automated environment. Nor has there been any discussions in a wireless 5G how secure it is to have blueprints of our harbor available to foreign nationals. Without proper security blueprints of our port could very well be available to any rogue hacker or foreign player with a desire to cripple our economy, weaken our defenses or steal our intellectual properties. As recent as last year, APM suffered a security breach and were shut down for approximately 2 weeks so it is already proven that there are security vulnerabilities to be exploited. These sorts of vulnerabilities have never taken place with a live workforce. Tensions with other countries are very high at this time due to current trade environment and this also needs to be considered.

There has been absolutely no discussion on how containers and potential threats will be assessed in this experimental new automated environment. Such large-scale automation eliminates current checks and balances in. It is understandable and always positive to develop relationships with partners around the globe however, giving control of the of one of largest port terminals to a foreign based company that services other foreign based companies compromises the security of the entire nation and puts the wellbeing.

On any given day just south of Pier 400 sit many crude oil tankers filled with voluminous amounts of crude oil and approximately 3 miles away is 600 metric tons of crude oil stored in the community of Wilmington. All it takes is one rogue hacker or hostile foreign actor to detonate an explosive device on one of these "super" ships and the entire Port of Los Angeles would cease to exist as would all residents in San Pedro, Wilmington and Harbor City. It is not in anyone's best interest to relinquish the people's sovereignty of their ports and navigational waters to a foreign player. The National Institute of Justice; the research, development and evaluation agency of the U.S. Department of Justice, has stated that technology is not a replacement for well-trained humans. All it takes is for one rogue hacker or hostile foreign player to detonate an explosive device

Health Issues

5G technology will emit a large quantity of Electromagnetic Radiation/Radiofrequency Radiation. The damage and health risks of EMF/RFR are well documented. Some of the more prevalent issues as a result of this radiation are DNA damage, Cellular Damage, Immune Stem Imbalance and the sticking and stacking of blood cells. Many studies have been conducted utilizing radiation from 4G LTE which document these issues. Since 5G requires multiple cell sites in close proximity to each other and given the fact that 5G is a newer technology the long-term effects on the environment and health are simply

not known. EMF/RFR radiation is amplified when in the presence of conductive metals. 5G radiation by itself is dangerous enough. It should further be considered that all these containers are made with metal there has been no research whatsoever on how or if these metal containers will amplify this radiation. In a community that is already plagued with pollution by refineries, trains, shipping and trucking adding radiation in unknown amounts is reckless

Port Master Plan

Although the Port Master plan may allow for this type of permit there is also language within the PMP that is completely being overlooked. The Port's economic development initiatives, strategies, and programs aim to be consistent with the City of Los Angeles' overall program for creating employment opportunities within the international trade and goods movement sectors of the economy, both City-wide and in the local harbor community. The Plan is designed to better promote and safely accommodate foreign and domestic waterborne commerce, navigation and fisheries in the national, state and local public interest.

Section 1.2 of the PMP states, "The Coastal Act is administered by the California Coastal Commission (Coastal Commission), whose mission is to protect, conserve, restore, and enhance the environment of the California coastline." It further states in Section 1.3 that one of the goals is to integrate economic, engineering, environmental and safety considerations into the Port development process for measuring the long-term impact of varying development options on the Port's natural and economic environment. It is the safety and economic ramifications that are completely being overlooked and just because something is allowed and can be done does not mean it **should** be done.

It is also not in the national, state or local interest to allow this permit to proceed. In allowing this permit to proceed the port is left unprotected and without knowing long term effects of 5G technology it cannot be said that it enhances the environment nor has health and security issues been addressed. It gives preference to the economic development of a foreign actor over those who have national state and local rights to commerce and navigation and over those it is supposed to protect

Conflicts

The Port Commission in its decision relied primarily on the PMP. It completely overlooked the Homeland Security Act and ignored its own mission statement as outlined in the 2018-2020 Strategic Plan wherein it states, "**We are America's Port® - the nation's #1 container port and the global model for security, sustainability, and social responsibility.**" This plan ignored its responsibility to security and social responsibility. APM is also failing in its social responsibility to the stakeholders of Los Angeles. In their application they state they will be using electric powered devices and equipment. This week they were quoted in the Los Angeles times as saying they will use diesel powered equipment. Furthermore, no permit should have been issued until the CAAP 2019 implementation second quarter progress report had been generated to fully assess the direct impact on job loss.

Conclusion

A request is being made to have Homeland Security and the National Security Agency and EPA weigh in on this issue to ensure that the safety and economic wellbeing of our stakeholders is being considered. If the movement of cargo is what is important than a live workforce is statistically better. If eco friendly equipment is a priority than the current workforce could very easily utilize electric powered equipment.

This permit should be tabled until APM and ILWU can come to a written understanding as they should be working together to implement an agreement that is mutually beneficial to all.

Communication from Public

Name: Purcell

Date Submitted: 06/28/2019 06:56 AM

Council File No: 19-0688

Comments for Public Posting: I strongly urge the Council to consider the severe negative impact automation will have on the workers of the ILWU and the surrounding community. Please support the union and our community by stopping the advancement of automation into the port.

Communication from Public

Name: Deloria hooks

Date Submitted: 06/28/2019 07:37 AM

Council File No: 19-0688

Comments for Public Posting: Here's what I wrote: My name is, Deloria Hooks, and I have lived in Long Beach for 20 years . I am currently employed as a longshoreman and will be affected by the harbor commission's decision on the appeal of the level 1 coastal development permit 18-25. Therefore I am writing to express my support for city council vetoing the Port of Los Angeles Harbor Commission's decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/ Maersk and automation of pier 400. The automation of any industry should never be taken lightly. Our city officials should always take the time to thoroughly weigh pros and cons using all data at their disposal before approving any permits that will eliminate jobs, and thereby protect the interests of communities and the taxpayers that they serve. It is my belief that the port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project, which APM/ MAERSK knows will have adverse affects on the surrounding communities. Companies should be able to do everything they can to remain competitive, however, not at the expense of working class families and not by causing extensive socio-economic and environmental damage to surrounding communities through the elimination of good paying jobs, and the introduction of technologies for which we have yet to fully identify the long term health effects. There is now a multitude of proven safe technologies readily available that can meet or exceed the standards set forth in the CAAP, with zero or near-zero emissions, proving that labor, productivity, and the environment do not need to be sacrificed in order to save a dollar, and still allowing the ports of Los Angeles and Long Beach to remain competitive. The loss of jobs will be felt throughout, but not limited to, surrounding communities and counties. Many small businesses which rely on their longshore clientele's patronage will suffer a loss of revenue, and not to mention the cities and state's loss of tax revenue. Our communities are already plagued with unemployment and homelessness, and allowing the Harbor Commission's decision to stand will only add to it. The nation's population is constantly growing, but how can we sustain a healthy economy if we lose all labor jobs to automation? How will the average American afford to buy a home, or the very goods that come in through our ports? A high quality of life should not

be limited to those who have the means to become engineers, attorneys, or doctors, therefore a thriving and stable society must maintain a healthy blend of skilled and unskilled workers in every profession. This is why the original level 1 Coastal development permit APM/Maersk should have been denied, and APM/Maersk should have been required to submit extensive socio-economic and environmental impact reports along with filing for a level 2 coastal development permit and fully disclosing their intentions for choosing to automate over finding a solution that benefits labor, the company, and the local communities. We, your constituents urge you to veto this appeal lest we suffer the same fate as Detroit. I'm a single parent and this job is beneficial too my child's well being ,future education fund ,and ,health benefits.

Communication from Public

Name: Raul Franco

Date Submitted: 06/28/2019 07:43 AM

Council File No: 19-0688

Comments for Public Posting: I am a resident of the Harbor Area region of Los Angeles. I am deeply disturbed by the biggest shipping company in the world automating tax payer lands and putting hundreds out of work. It will start with hundreds of jobs being lost and will grow to the thousands once other companies do the same. Maersk is a foreign company that leases the land at pier 400, and last year they were hacked and it cost them millions. It was man power and labor that kept them moving. Allowing the biggest shipping company in Los Angeles to automate is a big mistake to our economy. If they were hacked once, why can't it happen again? California depends too much on our ports to let it be ran by machines. There are currently 10,000 workers who depend on the port to make a living, if they suddenly become jobless, the Harbor Area region will turn into a Detroit. Machines don't vote or pay taxes, machines don't shop at stores or eat at restaurants. The port of Los Angeles is a very valuable resource to our economy to gamble with in regards to new technology. I.e '5G networks' Ap Moller & Maersk have not provided enough details on how they will use a new technology while keeping the port lucrative. As it is, the barriers and structures they want to build will eliminate space. Less space means less containers which ultimately means less revenue for our city. Also, the Port of Los Angeles continues to break records in moving cargo. By allowing this terminal to automate is a step backwards to our thriving economy. Thank you,

Communication from Public

Name: Traci

Date Submitted: 06/28/2019 02:01 AM

Council File No: 19-0688

Comments for Public Posting: My name is, Traci Brindamour, and I have lived in San Pedro for 33 years. I am currently employed as a Casual Longshoreman and will be affected by the harbor commission's decision on the appeal of the level 1 coastal development permit 18-25. Therefore I am writing to express my support for city council vetoing the Port of Los Angeles Harbor Commission's decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/ Maersk and automation of pier 400. The automation of any industry should never be taken lightly. Our city officials should always take the time to thoroughly weigh pros and cons using all data at their disposal before approving any permits that will eliminate jobs, and thereby protect the interests of communities and the taxpayers that they serve. It is my belief that the port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project, which APM/ MAERSK knows will have adverse affects on the surrounding communities. Companies should be able to do everything they can to remain competitive, however, not at the expense of working class families and not by causing extensive socio-economic and environmental damage to surrounding communities through the elimination of good paying jobs, and the introduction of technologies for which we have yet to fully identify the long term health effects. There is now a multitude of proven safe technologies readily available that can meet or exceed the standards set forth in the CAAP, with zero or near-zero emissions, proving that labor, productivity, and the environment do not need to be sacrificed in order to save a dollar, and still allowing the ports of Los Angeles and Long Beach to remain competitive. The loss of jobs will be felt throughout, but not limited to, surrounding communities and counties. Many small businesses which rely on their longshore clientele's patronage will suffer a loss of revenue, and not to mention the cities and state's loss of tax revenue. Our communities are already plagued with unemployment and homelessness, and allowing the Harbor Commission's decision to stand will only add to it. The nation's population is constantly growing, but how can we sustain a healthy economy if we lose all labor jobs to automation? How will the average American afford to buy a home, or the very goods that come in through our ports? A high quality of life should not

be limited to those who have the means to become engineers, attorneys, or doctors, therefore a thriving and stable society must maintain a healthy blend of skilled and unskilled workers in every profession. This is why the original level 1 Coastal development permit APM/Maersk should have been denied, and APM/Maersk should have been required to submit extensive socio-economic and environmental impact reports along with filing for a level 2 coastal development permit and fully disclosing their intentions for choosing to automate over finding a solution that benefits labor, the company, and the local communities. We, your constituents urge you to veto this appeal lest we suffer the same fate as Detroit.

Communication from Public

Name: Andre Williams jr
Date Submitted: 06/28/2019 03:01 AM
Council File No: 19-0688
Comments for Public Posting: I stand against automation. We will lose jobs and hurt the community.

Communication from Public

Name: Creva Siqueiros

Date Submitted: 06/27/2019 07:51 PM

Council File No: 19-0688

Comments for Public Posting: Automation would have a devastating effect on the families that work at the ports of LA/LB and it will effect the economy of the surrounding communities as well as big and small business owners that need the support and patronage of the ports. The Council needs to consider all of these things before making a descion

Communication from Public

Name: Jason Olaes

Date Submitted: 06/27/2019 08:15 PM

Council File No: 19-0688

Comments for Public Posting: My name is, Jason Olaes, and I have lived in San Pedro for 38 years. I am currently employed as a Stevedore/Longshoremen at the Port of LA and will be affected by the harbor commission's decision on the appeal of the level 1 coastal development permit 18-25. Therefore I am writing to express my support for city council vetoing the Port of Los Angeles Harbor Commission's decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/ Maersk and automation of pier 400. The automation of any industry should never be taken lightly. Our city officials should always take the time to thoroughly weigh pros and cons using all data at their disposal before approving any permits that will eliminate jobs, and thereby protect the interests of communities and the taxpayers that they serve. It is my belief that the port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project, which APM/ MAERSK knows will have adverse affects on the surrounding communities. Companies should be able to do everything they can to remain competitive, however, not at the expense of working class families and not by causing extensive socio-economic and environmental damage to surrounding communities through the elimination of good paying jobs, and the introduction of technologies for which we have yet to fully identify the long term health effects. There is now a multitude of proven safe technologies readily available that can meet or exceed the standards set forth in the CAAP, with zero or near-zero emissions, proving that labor, productivity, and the environment do not need to be sacrificed in order to save a dollar, and still allowing the ports of Los Angeles and Long Beach to remain competitive. The loss of jobs will be felt throughout, but not limited to, surrounding communities and counties. Many small businesses which rely on their longshore clientele's patronage will suffer a loss of revenue, and not to mention the cities and state's loss of tax revenue. Our communities are already plagued with unemployment and homelessness, and allowing the Harbor Commission's decision to stand will only add to it. The nation's population is constantly growing, but how can we sustain a healthy economy if we lose all labor jobs to automation? How will the average American afford to buy a home, or the very goods that come in through our ports? A high quality of life should not

be limited to those who have the means to become engineers, attorneys, or doctors, therefore a thriving and stable society must maintain a healthy blend of skilled and unskilled workers in every profession. This is why the original level 1 Coastal development permit APM/Maersk should have been denied, and APM/Maersk should have been required to submit extensive socio-economic and environmental impact reports along with filling for a level 2 coastal development permit and fully disclosing their intentions for choosing to automate over finding a solution that befits labor, the company, and the local communities. We, your constituents urge you to veto this appeal less we suffer the same fate as Detroit.

Communication from Public

Name:

Date Submitted: 06/27/2019 08:34 PM

Council File No: 19-0688

Comments for Public Posting: Please help save the future generations of all jobs against A.I.

Communication from Public

Name: Daniel M

Date Submitted: 06/27/2019 08:38 PM

Council File No: 19-0688

Comments for Public Posting: To whom it may concern: I am writing this comment as a concerned citizen of Southern California at the attention of the city council. We are facing a real threat in automation, not only the threat of eliminating the good paying jobs of the biggest port in the Western Hemisphere but what may come of the surrounding communities once these jobs are lost... the working class people in the port are homeowners, tax payers, heads of households and members in this county who vote... without these jobs people will lose their homes, the American dream, and most likely add to the ever growing number of homelessness in our county. We can not support a foreign company coming to OUR port and continue to eliminate middle class AMERICAN jobs for the greed and selfishness of their company. American Labor is the backbone of this country. I also want to mention the risks the technology APM is going to set into place. The 5G technology has not yet been fully vetted in its capacities and is very controversial. Scientists and environmentalists warn of the dangers this high radiation can cause. There are many alternatives to attain a cleaner port than just eliminating labor... APM is unclear as to the ramifications of 5G technology and is unclear on the number on job loss and also have been very vague on the number of new jobs created from their automation. We need transparency more than ever. Please consider other alternatives to achieving a cleaner port as many shipping companies would jump at the chance to take over the lease of OUR port on Navy Way... We must stop this automation and keep the good paying jobs of the American people

Communication from Public

Name: Lee Williams

Date Submitted: 06/27/2019 08:45 PM

Council File No: 19-0688

Comments for Public Posting: The Port of LA is owned by the people of LA. Because of this you, as the people's representatives have a responsibility to the people and our community to protect this asset in a way that benefits we the people. Allowing foreign agencies to use what the men and the women of the Harbor area have built with blood sweat and tears to be exploited in this way is a multi-generational tragedy that we will hold you responsible for at the ballot box. This decision will have far reaching effects to homeowners, small business and restaurant owners and all of the people who call the Harbor area home. You need to protect jobs or start looking for new ones.

Communication from Public

Name: Eva Barber

Date Submitted: 06/23/2019 01:47 PM

Council File No: 19-0688

Comments for Public Posting: As a life long San Pedro resident and mother of two members of ILWU, I urge the city council to deny the permit for automation as it would decimate our communities. It would eventually turn us into another Detroit or Pittsburg as was the case when massive jobs were lost, cities ruined.

Communication from Public

Name: Sean Collins Sr

Date Submitted: 06/24/2019 07:07 AM

Council File No: 19-0688

Comments for Public Posting: A correct and complete environmental impact report was not done at Pier 400 pertaining to 5G technology and its effects on the proje and environment around the port. Also, false reasoning was given for use of automated technology at pier 400, specifically the use of clean air auromated equipment to comply with clean air laws enforced. Manned clean air equipment could be used for those jobs so automation is not an excuse for clean air laws. Do the right thing and vote down the file.

Communication from Public

Name: Jennifer Caudle

Date Submitted: 06/24/2019 01:53 PM

Council File No: 19-0688

Comments for Public Posting: As a longshoreman, a community member, and wife of a business owner, I ask the counsel to make this permit be denied for a few reasons. As a longshoreman, I have had my health impacted already by automation. I am currently disabled with ptsd, from cranes malfunctioning that have automation installed but weren't designed for. I have whiplash after 4 incidents within 2 months. I believe there has not been sufficient study on adding additional systems the cranes weren't built to handle. I believe we already have a much higher environmental hazard as we continue to push through our physical pain, breathe in the toxins, and do what we do best...keep pumping. I've been diagnosed with 4 major autoimmune diseases starting 5 years after I began longshoring. We have lost too many to cancers that the population around us just dont get. Now APM wants to expose us to harmful radiation and LIES about it. 5g technology is a huge concern for me, as well as anyone who has read about the dangers. Communities all over the world are saying no to this tech. I believe that you, as representatives of your communities, have a responsibility to make sure it's safe before you okay this. And if not, or if you have read about it and would not want a 5g tower in your office, it has to die here. I also believe our community cannot sustain itself with more job losses to automation. We have no hope when our jobs are given freely to machines that work half the speed, but is validated by foreign corporations making money. Los Angeles as a whole is already under so much stress and burden as you are well aware. My husband pays his business taxes. Gladly. All the permits and fees. He has a small business that really only sustains itself and his employees. I pay taxes. His employees all pay taxes. Robots do not. This permit is a backdoor way to get rid of union jobs in the longrun. This is nothing to do with land use and everything to do with less labor on the waterfront. If it was truly about the environment alone, APM would employ the use of hybridized equipment that could be manned by the same workforce that has made the Port of Los Angeles the productive and competitive port it is today. Equipment that has been available for some time but have they implemented it? It's not about the environment. Thank you for your time. Do the right thing not for foreign interests or fat pockets, but for the communities you represent! We say "An Injury to one is an injury

to all", but I see now that it is not only applicable to our UNION but to the community as a whole. It's ironic that at the end of this comment I have to prove I'm not a robot.

Communication from Public

Name: Mario Parra

Date Submitted: 06/24/2019 04:09 PM

Council File No: 19-0688

Comments for Public Posting: I, Veronica Parra, am writing in support of the ILWU. We believe full automation of any terminal is detrimental to many hardworking families, local real estate, our communities and our economy. It will cause a ripple effect throughout our communities that are already plagued by unemployment and homelessness. Our many small businesses depend greatly on the workers of the ILWU. We want to urge that the company use HUMAN OPERATING EQUIPMENT.

Communication from Public

Name:

Date Submitted: 06/24/2019 04:10 PM

Council File No: 19-0688

Comments for Public Posting: I, Mario, am writing in support of the ILWU. We believe full automation of any terminal is detrimental to many hardworking families, local real estate, our communities and our economy. It will cause a ripple effect throughout our communities that are already plagued by unemployment and homelessness. Our many small businesses depend greatly on the workers of the ILWU. We want to urge that the company use HUMAN OPERATING EQUIPMENT.

Communication from Public

Name: Mario Parra

Date Submitted: 06/24/2019 04:05 PM

Council File No: 19-0688

Comments for Public Posting: I, name, am writing in support of the ILWU. We believe full automation of any terminal is detrimental to many hardworking families, local real estate, our communities and our economy. It will cause a ripple effect throughout our communities that are already plagued by unemployment and homelessness. Our many small businesses depend greatly on the workers of the ILWU. We want to urge that the company use HUMAN OPERATING EQUIPMENT.

Communication from Public

Name: SANDRA Franco

Date Submitted: 06/24/2019 03:52 PM

Council File No: 19-0688

Comments for Public Posting: To whom it may concern, For those who are in the power position to VETO this ruling, we the people hope you agree to do so. As a consumer, it is alarming to think of how devastating the ripple effect will be. As a citizen of this great nation, I wonder how the council allows a foreign company to impose automation on a working class. Automation replaces jobs and set forth, technology should not cripple the working class but enhance and make for a more effective and efficient labor. Once again, to those who are in the power position to reverse this ruling, consider the snowball effect it will have within the community and everyone in and around it.

Communication from Public

Name: Sonia

Date Submitted: 06/24/2019 11:24 PM

Council File No: 19-0688

Comments for Public Posting: I am not able to attend the meeting on Friday regarding the port automation permit. I would like to express my concern. Robot's do not pay taxes, they do not go out into the community and buy things to keep the economy going. They do not pay property taxes. They do not go to work to support their family. California is already hurting. Homelessness is at a all time high. Greed has took over in ways that hurt the economy. Be a part of saving the economy Be apart of securing hard workers supporting not just themselves but the economy Thank you

Communication from Public

Name: Robert Trimmer
Date Submitted: 06/24/2019 11:30 PM
Council File No: 19-0688
Comments for Public Posting: Automation should assist workers and the community....not replace them. The impact to the local community could be devastating. An impact study should be made.

Communication from Public

Name: David Campbell

Date Submitted: 06/24/2019 10:50 PM

Council File No: 19-0688

Comments for Public Posting: To whom this may concern When as a people did we start trading the future of our communities to big businesses. I think our founders would have wanted us to provide for our future generations , not sell our communities for extra Monetary conditions and situations . Haven't we seen enough Corporate greed Only to see our nation and communities steam rolled into nothingness . What type of legacy will we be willing to leave behind for our children . In a court of law you're judged by your peers but who are our peers , the nameless faceless corporations that would only decimate us and our communities for a few extra dollars . But you as our elected officials are supposed to protect us from this type of tyranny . There must be a better way .Thank you very much sincerely signed David Campbell .

Communication from Public

Name: Natasha

Date Submitted: 06/24/2019 09:30 PM

Council File No: 19-0688

Comments for Public Posting: I have put over 14 years of time at the port. I have missed out on family events and made sacrifices to work hard for my daughter. I am a single mom of one and she is depending on me to provide. I cannot for the life of me understand why anyone would want to support anything that would take good jobs away from good people! We put the money we make back into our own communities by buying houses, cars, eating at restaurants and much more. There are over 3 generations of people who have put their blood sweat and tears down there. Please do the right thing for thousands of people and do not let any more automation take any more of our jobs!

Communication from Public

Name: Diana Chavez-Feipel

Date Submitted: 06/24/2019 10:14 PM

Council File No: 19-0688

Comments for Public Posting: I hope this tentatively scheduled meeting is not a political move to get support from the ILWU and surrounding community. I hope that the City counsel is in this fight for the right reasons which are our children, grandchildren and the future of our communities. My understanding is there is already a deal which will be announced after a meeting on Wed. My wish would be that the Mayor stay out of our ILWU business and that Joe 245ing this issue and is doing this to protect his communities. I have no concept why anyone would not fight the fight of a foreign company coming in and taking American Jobs. Robots are in no way positive for the future of America!

Communication from Public

Name: Jim Geddes

Date Submitted: 06/24/2019 04:39 PM

Council File No: 19-0688

Comments for Public Posting: I believe American Jobs are more important then foreign owned company profits. Also, automation is slow and unproductive and won't benefit the port of Los Angeles. From what I hear tra pac and LBCT are losing money and 5G technology needs to be researched on the negative health and environmental issues that it can cause. Please vote to veto the permit decision, I believe it is everyone's best interests. Thank you.

Communication from Public

Name: Maria Cosentino

Date Submitted: 06/24/2019 04:42 PM

Council File No: 19-0688

Comments for Public Posting: I was born and raised here in San Pedro, Me and my husband are both longshoreman. My sister, brother and brother in laws are too. We all own houses. We work hard for what we have. We all pay taxes. Lots of taxes!!! But we are NOT important are we? Do we really have a voice in what is going on??? Is anyone listening to us and the rest of the community affected by this disturbing plan? I don't think so because as the last meeting took place, I was at work at APM Terminals and as your meeting was being conducted the fenced off area that this automation process is supposed to begin had plenty activity of workers. What were they doing?? Were they starting without having the go ahead?? Or did they already know they had the go ahead? Or maybe they know they are unstoppable, because we all know money is power. We can't compete can we!! These foreign companies and their big \$\$\$\$. Are they more important than us? Really?? Hopefully our Council is reading our comments. I did. Lots of repetitive concerns. We, the community all concerned about our jobs, our future, our communities. THIS IS DEFINATELY A TRICKLING AFFECT!! "5G" WHO IS DOING THE HOMEWORK ON THIS??? Council, please don't rush into something we don't know about. Please consider the working force, their families and the future of our communities and ESPECIALLY OUR HEALTH with "5G".

Communication from Public

Name: Andrew Garcia

Date Submitted: 06/24/2019 06:10 PM

Council File No: 19-0688

Comments for Public Posting: Dear council members, Please stop the automation of the port of Los Angeles. I am a life long resident of the South Bay. The impact it will have on my community will be dire to say The least. The loss of jobs will turn the surrounding area into another Detroit. Not to mention we have no idea how this 5g technology will effect the people in this area. Thank you, Andrew Garcia

Communication from Public

Name: Jennifer Radovic

Date Submitted: 06/24/2019 06:10 PM

Council File No: 19-0688

Comments for Public Posting: I Stand with ILWU and I stand for my community!

Communication from Public

Name: David perez

Date Submitted: 06/24/2019 05:04 PM

Council File No: 19-0688

Comments for Public Posting: Lost of jobs in this community is hitting harder than ever people are homeless all over Wilmington and San Pedro and in Long Beach all three are port city's automation is taking jobs from people and from supermarkets to clothing stores and ports with no jobs crime will jump up also just look at downtown Los Angeles and now a major out break to diseases . I hope and pray our council and our government sees that companies are pushing their weight around By buying robots for labor McDonald's all those places also need to be checked before we lose labor all together by robots. I seen a police robot last week in Orange County at a park there one police job gone

Communication from Public

Name: Jeffrey Thomas

Date Submitted: 06/24/2019 07:53 PM

Council File No: 19-0688

Comments for Public Posting: Thank you for allowing this post. I am a Community member concerned about mechanizing labor-saving devices to artificial intelligence, at the loss human labor. This has been proposed by APM Pier 400 at the last Harbor Board of Commissioners meeting. This has been passed 3 to 2 in favor of AUTOMATION. Humans are more efficient than robotics and less dangerous to the citizens. I don't have to tell you that eliminating human labor increases economic uncertainty, increases environmental concerns, decreases tax money for the community and puts economic stress on your voters. You reflect the voters collective voice. so we as voters are losing local control when it comes to matters between these billion-dollar foreign entities dictating or negotiating with a Port Union, on issues that should be decided by the body of Representatives we voted into office. This is our communities port and is up to us to defend it from foreign corporate greed. Why would the ILWU Representatives agree to automation which will eliminate over 500 jobs a day? Why would'nt the 3 out of 5 Harbor Board of Directors realize that the CDP Port master plan 18-25 are just guidelines and not law. Mr. Edward Renwick especially needs to understand this point. Diane Middleton and Anthony Perozi fully understand the entire ramifications of losing these union jobs 2 automation. If the Port Master Plan chooses to go green, we can choose to be green Electric run by humans and not by robots. Automation is proven to be less efficient than humans buy less than 1/2 in compasity of product and moving cargo. APM's application to the Master plan 18-25 should not be considered a level 1, APM has not done an environmental impact report or economic feasibility study. According to APM's application, APM said that this process of automation will not add any more jobs. Another issue is about 5g and this Automated equipment. The dangers that pose to us humans and the surrounding environment have severe consequences. It is possible insurance companies may not cover people who work in the 5G environment because of the dangers. Mr Oaks of APM said that he didn't know if this equipment would run on our terminals infrastructure. The automated equipment that runs overseas are run on 5g. The same Kalmar Strad equipment that was purchased for Pier 400 so this is going to require 5G here. Please do not let us all be bullied by this outside agency that

wants to take over our docks for their gain and our demise. Please consider sending back the CDP 18-25 back to the Board of Harbor Commissioners to further re-examination. Unfortunately much of the public is ignorant about such things as 5G being harmful to the community and job eliminating devices. Thank you for reading this and I am in prayer for you to please give us more time to educate our citizens. From Jeff Thomas
golfguru16@gmail.com

Communication from Public

Name: Phil Terrones

Date Submitted: 06/24/2019 07:53 PM

Council File No: 19-0688

Comments for Public Posting: POLA has an obligation to the citizens of LA to not permit automation on publicly owned lands. Automation directly eliminates good jobs for tax paying Americans. It will weaken the local economy and will only strengthen the pocket books of multi national owned companies. As a tax paying citizen of Los Angeles I strongly object any permit granting APM the use of automation at pier 400

Communication from Public

Name: Jesse

Date Submitted: 06/24/2019 06:17 PM

Council File No: 19-0688

Comments for Public Posting: As an LA voter and current worker at the port, i can easily say that i would not be able to afford to live here if it wasn't for my job at the docks of Los Angeles. So do we want to become another Detroit? If we automate, my job will be lost. Not only will i lose my job but many thousands of people will too. Directly or indirectly wd are all affected. Please help me keep my job and most importantly, help me provide for my family. Thank you.
Jesse

Communication from Public

Name: Tony

Date Submitted: 06/24/2019 06:34 PM

Council File No: 19-0688

Comments for Public Posting: I am writing as a very concerned citizen of this nation. I'm worried about what could happen in 20 or 30 years when most of OUR work is automated. Where do we go? I strongly believe we will become a 3rd world country. As if the gap between rich and poor isn't already a problem. We are seeing this happen everywhere. When labor finally started gaining equality during and after the labor movement. What did they do? They attacked the middle class with out sourcing. Then little by little they've done what the rich n powerful has always done and that's try to keep everything for themselves and middle class has been buried. Their has only been a few unions who have made it through. The ILWU is one of them. Now were in the age of the machine. (Welcome to the machine) as if it wasn't already there, now it becomes literal. Unfortunately regular working people are in the cross fire again. When will the assault on the working class stop. We are asking and begging for your help. Please consider our plea to stop corporate terrorism. At the end of the day we all have to look at ourselves in the mirror and hope we did the right thing, especially for our kids future. Thank you, A concerned citizen

Communication from Public

Name: Anthony Armijo

Date Submitted: 06/24/2019 06:55 PM

Council File No: 19-0688

Comments for Public Posting: Please help my community and it's local Longshoremen workers by denying Apm Maersk from continuing with 5G towers and automation strads Implementation it will put a lot of hard working people out of work in our surrounding community's! Don't let a foreign company come to our country and ruin our economy just like they did in Europe. Apm Maersk has not been forthcoming on who many jobs will be lost or gained and what the impact would be on our community and wildlife with 5 G . Ty from a concern citizen

Communication from Public

Name: Susana

Date Submitted: 06/24/2019 06:56 PM

Council File No: 19-0688

Comments for Public Posting: Approving this permit and allowing APM terminals to eliminate thousands of jobs will impact the local communities very much. Not to mention the overall impact to other consumers when thousands will not be able to buy or provide a fair living for their families. The technology that wants to be used is harmful to our environment as well. If being a more eco friendly environment is what will help our environment then why can't APM terminals go 100% electric and update their facilities instead of eliminated jobs trying to accomplish this. This will be the worst thing to do to our surrounding communities. I ask you to please explore other options rather than just eliminate thousands of jobs so that the big corporations just have more money for themselves. They are not thinking about the hard working men and women that will loose everything when their jobs are gone.

Communication from Public

Name: Olivia Vazquez

Date Submitted: 06/24/2019 07:29 PM

Council File No: 19-0688

Comments for Public Posting: I am a woman single 53 years old mother of four I am the rock of my family it has cost me lots of efforts to archive everything I have I am very worried about this automation please don't allow this to take effect in our loading docks this will cause a lot of hardship for the community of San Pedro the government of the United States of America should not allow a foreign greedy corporation to eliminate humans labor jobs with out this good jobs the younger generation will have no future here in this community please make a good decision an stop automation thank so much lots of blessings and love sincerely Olivia Vazquez

Communication from Public

Name: Cynthia A Melgoza

Date Submitted: 06/22/2019 06:54 PM

Council File No: 19-0688

Comments for Public Posting: I am asking the City Council to reverse the decision and deny the APM permit. I am a wife, mother and concerned citizen of this community. I work, vote, own my home, pay taxes, spend my income and raise my children in this community. This decision will affect my health and welfare and that of my family. It is not okay for any company much less a foreign owned company to rid our country of America jobs machines are intended to help people do their job making us more productive not replace us. We need to bring jobs to this community not take them away. There is no reason for automation to come to our ports they have proven to be less affective then man power therefore loosing potential revenue for our city. APM plans to bring 5g into our environment which will not only be toxic for me and my family but everyone in the community including the neighboring federally protected bird sanctuary. I ask you to reverse the decision of the port commission and deny APM their permit. Robots will not spend money in our community helping our economy or vote but I do!

Communication from Public

Name: Peter camez

Date Submitted: 06/22/2019 08:16 PM

Council File No: 19-0688

Comments for Public Posting: Dear elected officials. I am commenting as a concerned citizen of Wilmington CA. The issue of automation has been brought to city council and I urge you along with everyone I know to please stop automation in its tracks. Many families not just longshoreman will be affected by this. Longshoreman frequent gas stations stores restaurants fast food retail and many more places. Longshoreman make a decent paycheck therefore paying high income taxes. Without a doubt this is a loss in revenue to the state and federal government and a loss of jobs and a loss of income for thousand of families. Automation is a loss all the way around. I urge you to slow the progress and try and find a better way forward. One that can benefit all and has a more balanced approach. Thank you for your time. Sincerely Peter Camez

Communication from Public

Name:

Date Submitted: 06/22/2019 08:46 PM

Council File No: 19-0688

Comments for Public Posting: Answer to a post on facebook and my comment - I think thats a crime sitting on the Port Of Los Angeles Board voting about our Port in our Community and they have no clue of our rich history and why shoudnt they vote no (the three musketeers) they do not care The Port land belongs to the people of California and is especially dear to our community Its provided jobs for our city and surrounding cities and beyond ... We the people have a voice and that is that we do not want automation taking place on our land we are the land owners - We need to evict It does not matter about the ILWU contract or the p Port Plan - neither one has more rights than " We the People" Our right to Life liberty and the pursuit of happiness - Constitutional right ... Fourteenth Amendment - Protect our property from Foreign invaders !!! This is the United Staes of America - These are our constitutional rights and we as a community are being raped in our own land What kind a atrocity is this ? The fight will prevail!!

Communication from Public

Name: Mario

Date Submitted: 06/22/2019 05:21 PM

Council File No: 19-0688

Comments for Public Posting: As a 21 year resident and community member of San Pedro and the Harbor Area I will be attending the City Council meeting Friday June 28th.. I urge all COMMUNITY MEMBERS TO JOIN .. The Community has a Voice!

Communication from Public

Name: Maria Arellano

Date Submitted: 06/22/2019 03:36 PM

Council File No: 19-0688

Comments for Public Posting: Please throw out this ruling! It's unfair for those who support families! And for those who are able to VETO please due so this is costing families their job's!! And for those who are for it, allow me to ask you why would you do that? :(

Communication from Public

Name: Maricela

Date Submitted: 06/22/2019 02:28 PM

Council File No: 19-0688

Comments for Public Posting: Hi my name is Maricela and I'm a 40 year resident of Wilmington. I still reside here as we speak and I hold a position as a casual Longshoreman and have held that position since June 2005, I have hope to be registered soon enough but now that our jobs are on the line and possibly to be replaced by robots is very disappointing. This has always been my dream. I love my job and take pride in what I do. I am a 2nd generation longshoreman and now my oldest is a 3rd generation that just got hired a few months ago. I would hope that our jobs would still be here as we all work hard for our money to provide for our families. I am a single mother to 5 kids and I want to be able to provide for them like I have been and not rely on any public assistance because I am a hardworking mom that lives for her kids and loves where she works. This job will affect many families. Imagine to lose your job just to be replaced by a robot. Humans pay taxes robots don't. Think about every family this will affect. Think about if this was your family. How would you feel? I really hope and trust the right decision will be made. Thank you and God Bless.

Communication from Public

Name: Paula Samora

Date Submitted: 06/23/2019 02:47 AM

Council File No: 19-0688

Comments for Public Posting: Please, please, please consider the Southern California communities that would be affected with job loss if you allow this foreign company the permits for their automation plan. There will be a huge trickle effect. Job loss for many hard working families, local businesses will have to close down as well. Is it really worth it? Is it worth allowing a foreign company the rights and privileges of making more money for their own pockets and putting your own United States citizens out of jobs???? How are we allowing a foreign company to come into our country, putting our citizens out of jobs, and they benefit? Not only the job loss portion....they need 5g to operate the equipment, which in turn means medical and health issues for our communities down the line as well!!!! It is not a good move!!! It is not worth it!!!! Do not allow this foreign corporation to walk all over us!!!! Please!!!!!!

Name: Rev Wm R Billy Orton
Date Submitted: 06/23/2019 03:31 AM
Council File No: 19-0688
Comments for Public Posting: To the Members of Council: I wish to praise Councilman Joe Bascaino for his ongoing engagement with constituents in San Pedro and Wilmington, as pertains to the effort by the world's largest commercial fleet to make fundamental structural functionality, in which automation is potentially pushed and more predictable. Macrsk may be the largest commercial shipping fleet on earth, but the corporation's strategic purposes for automation will certainly take into account the arrival of a new ocean, and with the Northwest Passage and the Arctic Bridge Route, the entire West Coast will see corporati Dick Floyd, and was the aide for Select Committee on California Ports for Sally Havice, when she chaired. I had the pleasure of staffing Senator Roderick D. Wright during his six years, and immediately prior served as communications consultant for the ILWU. The ILWU and PMA each are followi questions are beyond the massive environmental factors and sweeping economic changes. The seizure of the high seas by Russia puts it further than Czar Nikolus II attempted to encircle the 11 time zones of Russia. Now, Mr. Putin's grabbing the Black Sea and domination of the Baltic means that Rus has a lot of eyes looking closely at this new ocean.
https://www.facebook.com/pg/partyofgrace/photos/?tab=album&album_id=473404713432162&__xts__%5B0%5D=68.ARCnMSQvEd5VDcPg61BS_IQORvRKcHwB4HAzBY3Ptzb5ZlehkCOR3KuKgeRQ-sbVcm1HTaUlcx0Ifjb-6Az8uqzZrbgR4eAdYgOrKGo_J2R0DYVYLNdEeDX2asy50l8j-1

Communication from Public

through in the largest terminal in the world with a 3-to-2 vote. Still, I offer by this my consent offered endorsement of File 19-0688, and ask that Council take a close look at the specifics of the Maersk request, certainly. But I would also hope that the entire West Coast is at profound risk, to lose virtually all cargo movement now conducted on the ships serving away particularly. It would do more harm than good, to instead work to let the New York City port put forward a claim, that both sides may have sought links, but together have things common. The 1960 Alameda Agreement is precisely the deal that maritime and cargo movement need. Just as it was the case with the Panama Canal, the United States has been successful in getting the shipping industry to agree to a deal that works for everyone. The 1960 Alameda Agreement is precisely the deal that maritime and cargo movement need. Just as it was the case with the Panama Canal, the United States has been successful in getting the shipping industry to agree to a deal that works for everyone.

closely the emergence of the Arctic as a game changer for goods. If Maersk is running automation and China wants a rapid change of routes, it could be the action reflected by a 3-to-2 commission action could have been a bird in the coal mine. I support the position Councilman Buscaino moves for adoption of 19-0688. Sincerely
I will control or influence half the world, Denmark included. It is in the interest of the City of Los Angeles to give the question of WHETHER POLA MAY EVAPORATE due to the Arctic, and consider the question as a strategic matter. Limiting the rise of cargo over the Arctic, in simplest way to see how the West Coast risk

Q8sg-AKz7y5qGy VGLB-dLpkjg2TF4r-wojkZD2ckafJ7/DMDmZvBgpp6-CU/ZRRmgxbzsd7NWx-mvdaILpC7Tj0oDXFD0kgQB5cu4swNuaZ2tG6g6...wY2yVzpP8ybYbkVf3imURTyG9opZdJCf4HqpsRw3Z2toSYBn-Vbjx)...Wobk DBblyMCzbWngY_OE3akFeEBVAHlImnJ(GQPu)2v0qphR_E6_1Reco

er the Pacific, China is bargaining with Russia to run Danish ships through The Arctic. Maersk ran the first ship ever to cross the Northeast Route last August. Thus, China will route goods due north to a "new ocean" for routes that are shorter, cheaper, safer, and less views forward, having been the Committee Consultant for Assemblywoman Betty Kamelette, when she formed the Select Committee on California Ports, and led the push to support the Alameda Corridor. I also covered the Harbor Area for Assemblyman Billy Orton 701 Pine Ave #280 Long Beach CA 90813 ATTACHED LINKS: "The Arctic: A Wait-and-See Approach to Defending the Homeland," by William Hegedusich, 2017, US Naval Postgraduate School, in a summary which suggests that the Arctic is massive job losses. https://www.youtube.com/watch?time_continue=10&v=ZcDwtO4RWmoe&fbclid=IwAR3kW5AKMZEWhObLdw5yXEQaNU28GiG4XmRYaHTMqaiwO9oIvPNBR5KPCg 150 images and maps to show in rapid view that The Arctic

7HqCw6gf_dNn3duE7l0dBYUBikj-KJlgnlI3O740Za7Zcj7vFOyJNsojb7HwuercQp5e44ZpeJ2lMAcyVn77bs2wbHPA1zdR0j7cXALs-xCIG0pyae8RZ6CVrRqR1DHYbmG-y3KD4vJmpulP0QbbOpSDsG1ONy8N2Vso2AVIM72Hqj1c03JQ&__tn__=UC-R



NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**THE ARCTIC: A WAIT AND SEE APPROACH TO
DEFENDING THE HOMELAND**

by

William Hegedusich

December 2017

Thesis Advisor:
Second Reader:

Nicholas Dew
Erik Jansen

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REPORT DOCUMENTATION PAGE			<i>Form Approved OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE December 2017		3. REPORT TYPE AND DATES COVERED Master's thesis
4. TITLE AND SUBTITLE THE ARCTIC: A WAIT AND SEE APPROACH TO DEFENDING THE HOMELAND			5. FUNDING NUMBERS	
6. AUTHOR(S) William Hegedusich				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government. IRB number ____N/A____.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release. Distribution is unlimited.			12b. DISTRIBUTION CODE	
13. ABSTRACT (maximum 200 words) <p>When it comes to the Arctic, there is no lack of planning, debating, studying, or shortage of opinions as to what the U.S. should or should not do in this region of extremes. Should the United States spend billions on icebreakers that when completed may not have ice to break, ignore the region and hope the rest of the world follows suit, or worse, militarize the region for an unknown future threat?</p> <p>Given the budget-constrained environment and lack of threat to the U.S. national security from the Arctic, is there another option or method to allow policy makers to envision a different future for the Arctic, one requiring them to wait and do nothing, knowing with some certainty that taking no action is the right decision at this moment in time?</p> <p>Using scenario planning, this thesis examines four future scenarios for the Arctic and evaluates the strategic patience and persistence strategy introduced in the 2015 National Security Strategy to understand better the costs, risks, and benefits of doing little or nothing in the Arctic. Given the uncertainties in the Arctic and faced with greater threats to the homeland, the strategic patience and persistence strategy is a viable approach to pursue in the Arctic, which allows the U.S. to achieve its national Arctic goals.</p>				
14. SUBJECT TERMS Arctic, scenario planning, strategic patience, persistence, strategy absence			15. NUMBER OF PAGES 131	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UU	

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18

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**THE ARCTIC: A WAIT AND SEE APPROACH TO DEFENDING THE
HOMELAND**

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B.S., University of Maryland, 1984
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Submitted in partial fulfillment of the
requirements for the degree of

**MASTER OF ARTS IN SECURITY STUDIES
(HOMELAND SECURITY AND DEFENSE)**

from the

**NAVAL POSTGRADUATE SCHOOL
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ABSTRACT

When it comes to the Arctic, there is no lack of planning, debating, studying, or shortage of opinions as to what the U.S. should or should not do in this region of extremes. Should the United States spend billions on icebreakers that when completed may not have ice to break, ignore the region and hope the rest of the world follows suit, or worse, militarize the region for an unknown future threat?

Given the budget-constrained environment and lack of threat to the U.S. national security from the Arctic, is there another option or method to allow policy makers to envision a different future for the Arctic, one requiring them to wait and do nothing, knowing with some certainty that taking no action is the right decision at this moment in time?

Using scenario planning, this thesis examines four future scenarios for the Arctic and evaluates the strategic patience and persistence strategy introduced in the 2015 *National Security Strategy* to understand better the costs, risks, and benefits of doing little or nothing in the Arctic. Given the uncertainties in the Arctic and faced with greater threats to the homeland, the strategic patience and persistence strategy is a viable approach to pursue in the Arctic, which allows the U.S. to achieve its national Arctic goals.

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LIST OF ACRONYMS AND ABBREVIATIONS

9/11	September 11, 2001
AESC	Arctic Executive Steering Committee
AMAP	Arctic Monitoring and Assessment Programme
CIA	Central Intelligence Agency
CIA	Cross-Impact Analysis
COA	Course of Action
DOD	Department of Defense
E&P	Exploration and Production
EEZ	Exclusive Economic Zone
EU	European Union
GAO	General Accounting Office
HSPD	Homeland Security Presidential Directive
ICJ	International Court of Justice
IMO	International Maritime Organization
LOE	Line of Effort
LOEs	Lines of Effort
M&S	Modeling and Simulation
NATO	North Atlantic Treaty Organization
NORAD	North American Aerospace Defense Command
NSC	National Security Council
NSPD	National Security Presidential Directive
NSR	Northern Sea Route
NWP	Northwest Passage
OPEC	Organization of the Petroleum Exporting Countries
PDD	Presidential Decision Directive
PMT	Probabilistic Modified Trends
RADM	Rear Admiral
SWOT	Strengths, Weaknesses, Opportunities and Threats
TIA	Trend-Impact Analysis
TSR	Transpolar Sea Route

UNCLOS	United Nations Convention on the Law of the Sea
USC	United States Code
USCG	United States Coast Guard
USS	United States Ship
USGS	United States Geological Survey
USNORTHCOM	U.S. Northern Command

EXECUTIVE SUMMARY

In 1859, Russia offered to sell Alaska to the United States, hoping it would balance the power in the Pacific between them and Great Britain, and strengthen their relationship with the United States and bring about a “desirous of strengthening, if possible, the good understanding which exists between” the United States and Russia.¹ However, the Civil War prevented the United States from purchasing Alaska. The end of the Civil War brought a renewed interest in Alaska by then–Secretary of State William Seward. He negotiated the purchase and the United States took possession of Alaska in October 1867, and in 1959, Alaska became the 49th state. From 1867 until today, Alaska and more broadly the Arctic has been in and out of the news. Today, the Arctic is back in the news, but not for geopolitical reasons or the discovery of gold, oil, or other natural resources. Rather, the melting of the polar ice cap combined with an increased rate of melting drives what is taking place in the Arctic today.²

When it comes to the Arctic, there is no lack of planning, debating, studying, or shortage of opinions as to what the U.S. should or should not do. The Arctic is increasingly becoming a homeland security issue because previously inaccessible areas are now accessible for exploration of natural resources, tourism, quicker shipping routes,

¹ Digital History, “Alaska Treaty,” accessed November 13, 2017, http://www.digitalhistory.uh.edu/disp_textbook.cfm?smtID=3&psid=4019.

² 2017 *Snow, Water, Ice and Permafrost in the Arctic (SWIPA): Summary for Policy-makers*, Arctic Monitoring and Assessment Programme (AMAP), Oslo, Norway; Fourth National Climate Assessment, Volume I [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)], U.S. Global Change Research Program, Washington, DC, 303, doi: 10.7930/J00863GK.

and to non-blue water navies.³ The Arctic today “could become the source of cooperation that Seward foresaw.”⁴

What strategy should the United States pursue in the Arctic? This thesis sets out to answer this by assessing the costs, risks, and benefits of applying the strategic patience and persistence strategy for the Arctic. The 2015 *National Security Strategy* introduced this as an alternative to spending billions to upgrade communication systems, improve infrastructure and domain awareness, train and equip forces, and build Arctic-specific capabilities (e.g., polar-capable icebreaker).⁵

From a policy perspective, the Arctic is guided by several national policies: 2009 *National Security Presidential Directive 66/Homeland Security Presidential Directive 25* (NSPD 66/HSPD 25), 2015 *National Security Strategy*, 2013 *National Strategy for the Arctic Region* and the 2016 *Implementation Framework for the National Strategy for the Arctic Region*. Collectively, these policies, described as a “wish list,” lack direction, funding, or authority.⁶ I distilled from these three national strategic goals for the Arctic to assess the effectiveness of the strategic patience and persistence strategy. The three national strategic goals for the Arctic are 1) protect national security interests, 2) protect the homeland, and 3) ensure freedom of the seas.

The thesis uses a modified “double uncertainty” matrix, also known as the “2x2 matrix approach,” using scenarios representing four possible futures that I will use to

³ United States Geological Survey, Energy Resource Program, Circum-Arctic Resource Appraisal, <http://energy.usgs.gov/RegionalStudies/Arctic.aspx>; Crystal Cruises, Northwest Passage, http://www.crystalcruises.com/voyage-finder/cruise-type/Region/northwest_passage; Scott Borgerson, “Arctic Meltdown: The Economic and Security Implications of Global Warming,” *Foreign Affairs*, March/April 2008, <https://www.foreignaffairs.com/articles/arctic-antarctic/2008-03-02/arctic-meltdown>; Andrea Charron, “Canada, the Arctic, and NORAD: Status quo or new ball game?,” *International Journal*, Vol. 70(2), (2015), 215-231; Blue water navies are those maritime forces that can operate globally, e.g. China, France, Italy, India, Russia, United Kingdom and the United States

⁴ Scott G. Borgensen, “The Coming Arctic Boom: As the Ice Melts, the Region Heats Up,” *Foreign Affairs*, July/August 2013, accessed November 2, 2017, <https://www.foreignaffairs.com/articles/global-commons/2013-06-11/coming-arctic-boom>.

⁵ The White House, “National Security Strategy,” February 2015, Washington, DC.

⁶ William G. Dwyer, “The Evolving Arctic: Current State Of U.S. Arctic Policy,” (master’s thesis, Naval Postgraduate School, 2013), 17.

evaluate the strategic patience and persistence strategy.⁷ These scenarios incorporate the most important factor, Russia, with the most uncertain factor, the rate of melting ice in the Arctic. The titles for the four scenarios are New Spice Route, Arctic Renaissance, Sochi Agreement, and Arctic Russian Bear. The New Spice Route explores new trade routes through the Arctic. The Arctic Renaissance brings the Arctic out of the Ice Age into the 21st century. The Sochi Agreement is Russia's second attempt at unifying nations around its strategic goals as attempted under the Warsaw Pact. Finally, the Arctic Russian Bear involves Russia flexing its military might to control the Arctic. The scenarios present policymakers four alternative futures where Russia's actions either hold the Arctic region or world at risk (adversary role) or Russia aligns itself with other nations through various partnerships (partner role). At the same, I assess the impact the melting sea ice has on their and other nations' actions.

Strategies come in all shapes and sizes and across many disciplines. Military strategies include air superiority, blitzkrieg, flanking maneuvers and others. In business, typical strategies involve firms dominating their industry, monopolizing critical resources or out-innovating their competitors. According to Richard Rumelt in *Good Strategy Bad Strategy: The Difference and Why It Matters*, a good strategy recognizes the challenges, provides a way ahead, and typically has a "kernel" consisting of three elements: a diagnosis, guiding policy, and coherent action.⁸ Depending on whom you are, the strategic patience and persistence strategy may convey some or all of the following: a failure by leadership to define a hard and fast strategy; a willingness for flexibility and efficiency; acknowledgment of the unknown unknowns; or making a small investment now in hope of a greater return later. All of these have an eye toward keeping the nation's powder dry until needed.

With the scenarios and strategies in hand, I evaluate the costs, risks, and benefits of the United States pursuing the strategic patience and persistence strategy on its ability to protect its national security interests and the homeland and ensure freedom of the seas.

⁷ Muhammad Agar, Tugrul U. Daim and Anotnie Jetter, "A review of scenario planning," *Futures* 46(2013): 34, <https://doi.org/10.1016/j.futures.2012.10.003>.

⁸ Richard P. Rumelt, *Good Strategy Bad Strategy: the Difference and Why It Matters* (Crown Business, 2011), loc 188 and 241 of 5141, Kindle.

In three of four scenarios, this strategy has acceptable risks; the fourth scenario entails the greatest risk and requires some action by the U.S.

Today, the West views the melting Arctic sea ice with one eye on its risks and the other on its rewards. The risks entail impacts to the environment, indigenous people, and the climate. The rewards are quicker shipping routes, new areas for offshore oil, gas, and natural resource development, tourism, and more. Russia sees this as an opportunity to pivot away from Central Asia where it lost its foothold with the fall of the Iron Curtain and pursue a new course in the Arctic centered on four factors: foreign policy, military security, economic development, and transportation and maritime policy.⁹

Scientists with a very high level of confidence predict “an Arctic-wide ice loss is expected to continue through the 21st century, very likely (>90%) resulting in nearly sea ice-free late summers by the 2040s.”¹⁰ Meanwhile, others are calling on the United States Coast Guard to buy four heavy icebreakers, with an average cost of \$791 million and lifetime costs in excess of \$6.5 billion, in lieu of three heavy and three medium icebreakers in the midst of a constrained budget environment.¹¹

While the Arctic may remain an area of little conflict or of homeland security concern for policymakers, the methods used in this thesis could assist them in evaluating future policy decisions as scenarios take an outside-in look at the future. Scenarios explore the problem space versus trying to predict it, and more importantly, they embrace the uncertainty of the future rather than dismissing it. Given these and other uncertainties, the strategic patience and persistence strategy is a viable approach to pursue in the Arctic, which allows the U.S. to achieve its national Arctic goals.

⁹ Caitlyn L. Antrim, “The Russian Arctic in the Twenty-First Century,” in *Arctic Security in an Age of Climate Change*, ed. James Kraska, (Cambridge: Cambridge University Press, 2011), 120-124.

¹⁰ Taylor, P.C., W. Maslowski, J. Perlwitz, and D.J. Wuebbles, 2017: *Arctic Changes and their Effects on Alaska and the Rest of the United States*, 303; “Very high level of confidence” is defined as “Strong evidence (established theory, multiple sources, consistent results, well documented and accepted methods, etc.), high consensus.”

¹¹ Ben Werner, “Report: Coast Guard Should Focus on Buying Heavy Icebreakers,” *USNI News*, November 20, 2017, accessed November 25, 2017, <https://news.usni.org/2017/11/20/report-coast-guard-focus-heavy-icebreakers>; National Academy of Science, *Acquisition and Operation of Polar Icebreakers: Fulfilling the Nation’s Needs* (Washington, DC: The National Academy Press, 2017), DOI 10.17226/24834.

ACKNOWLEDGMENTS

I joked with folks that the reason the Air Force assigned me to Alaska in 1998 was because North Dakota was not cold enough for me. Beneath the northern lights and among the Arctic Foxes on Shemya, lies the barren beauty that is Alaska where folks go to work until the mercury drops to minus 50° F, and I was happy when a mail-order catalogue package arrived at my house in North Pole, Alaska.

To my parents—thank you for instilling in me a love of God, country and family. To my dad who passed away in the midst of writing this, I will always remember our salmon fishing trip to Talkeetna and the big smile on your face as you caught fish after fish, releasing those after you got your quota.

To my NORAD and USNORTHCOM colleagues—thanks for selecting me and allowing me to represent our two great commands at NPS and CHDS. This has been a wonderful experience made possible by my WO coworkers covering meetings, conferences and other events as I attended the numerous IRs.

To the CHDS faculty and staff—thank-you for preparing America's next generation of Homeland Security experts. Nick and Erik, your guidance and direction kept me focused on my topic, reminding me that nothing is obvious and leaving the rabbit holes for someone else to explore.

To my wife, Mary—thanks for your patience, understanding and love. More times than not, my school schedule and assignments conflicted with family outings, our date nights, and other events.

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I. INTRODUCTION

In 1859, Russia offered to sell Alaska to the United States hoping it would balance the power in the Pacific between Russia and Great Britain. However, the Civil War prevented the United States from purchasing Alaska. The end of the U.S. Civil War brought a renewed interest in Alaska by then Secretary of State William Seward who was “desirous of strengthening, if possible, the good understanding which exists between” the United States and Russia.¹ He negotiated the purchase and the United States took possession of Alaska in October 1867.

For the next thirty years the U.S. government all but ignored Alaska, so much so, the purchase was dubbed “Seward’s Folly,” until gold was discovered in 1896. Alaska’s strategic importance would again go into hibernation until World War II during the Battle of the Aleutians, and in 1959, Alaska became the 49th state.²

Alaska was put on the map in 1967 with the discovery of oil in Prudhoe Bay and with it came a construction boom building the Alaskan pipeline and infrastructure to support the oil industry.³ As happened before, interest in Alaska and more broadly the Arctic waned. It was not until 2010 when former President Obama included a sentence on “Arctic Interest” in the 2010 *National Security Strategy* making the Arctic part of the Nation’s strategic policy.⁴ Prior to this, the Arctic and Antarctica policies resided in one policy document.⁵

¹ Digital History, “Alaska Treaty,” accessed November 13, 2017, http://www.digitalhistory.uh.edu/disp_textbook.cfm?smtID=3&psid=4019.

² United States Department of State. Office of the Historian, “Milestones: 1866-1898, Purchase of Alaska, 1867,” November 17, 2016, <https://history.state.gov/milestones/1866-1898/alaska-purchase>.

³ Alaskan Oil Production 1959-2010, accessed October 31, 2007, <http://www.tax.alaska.gov/sourcesbook/AlaskaProduction.pdf>; Alaska Humanities Forum: Alaska History & Cultural Studies, “Modern Alaska – Oil Discovery and Development in Alaska,” November 17, 2016, <http://www.akhistorycourse.org/modern-alaska/oil-discovery-and-development-in-alaska>.

⁴ The White House, “National Security Strategy,” May 2010, Washington, DC, 50.

⁵ The White House, Presidential Decision Directive/NSC-26, “United States Policy on the Arctic and Antarctic,” June 9, 1994.

Today, the Arctic is back in the news, not for geopolitical reasons or the discovery of gold, oil, or other natural resource. Rather, the relatively recent melting of the polar ice cap, first identified in the 1970s and 1980s, and the increase rate of melting drives what is taking place in the Arctic today. From 2011 to 2017, forecasts for a “nearly sea ice-free late summer” went from occurring in 2050 to the 2040s to possibly the late 2030s.⁶ The Arctic is increasingly becoming a homeland security issue because previously inaccessible areas are now accessible for exploration of natural resources, tourism, quicker shipping routes, and to non-blue water navies.⁷ The Arctic today “could become the source of cooperation that Seward foresaw.”⁸

A. PROBLEM SPACE

1. Background

When it comes to the Arctic, there is “no failure to plan,” especially for Washington which equates evaluating, studying, and debating the Arctic’s strategic role, year after year, “as equivalent to taking decisions on a future course of action.”⁹ The

⁶ Arctic Monitoring and Assessment Program (AMAP), *2011 Snow, Water, Ice and Permafrost in the Arctic (SWIPA): Climate Change and the Cryosphere*, Arctic Monitoring and Assessment Programme (AMAP), Oslo, Norway, viii; Taylor, P.C., W. Maslowski, J. Perlwitz, and D.J. Wuebbles, 2017: *Arctic Changes and their Effects on Alaska and the Rest of the United States*, In: Climate Science Special Report: Fourth National Climate Assessment, Volume I [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)], U.S. Global Change Research Program, Washington, DC, 303, doi: 10.7930/J00863GK; Arctic Monitoring and Assessment Program (AMAP), *2017 Snow, Water, Ice and Permafrost in the Arctic (SWIPA): Summary for Policy-makers*, Arctic Monitoring and Assessment Programme (AMAP), Oslo, Norway, 5; National Snow and Ice Data Center, “Climate Change in the Arctic,” https://nsidc.org/cryosphere/arctic-meteorology/climate_change.html

⁷ United States Geological Survey, Energy Resource Program, Circum-Arctic Resource Appraisal, <http://energy.usgs.gov/RegionalStudies/Arctic.aspx>; Crystal Cruises, Northwest Passage, http://www.crystalcruises.com/voyage-finder/cruise-type/Region/northwest_passage; Scott Borgerson, “Arctic Meltdown: The Economic and Security Implications of Global Warming,” *Foreign Affairs*, March/April 2008, <https://www.foreignaffairs.com/articles/arctic-antarctic/2008-03-02/arctic-meltdown>; Andrea Charron, “Canada, the Arctic, and NORAD: Status quo or new ball game?,” *International Journal*, Vol. 70(2), (2015), 215-231; Blue water navies are those maritime forces that can operate globally, e.g. China, France, Italy, India, Russia, United Kingdom and the United States.

⁸ Scott G. Borgensen, “The Coming Arctic Boom: As the Ice Melts, the Region Heats Up,” *Foreign Affairs*, July/August 2013, accessed November 2, 2017, <https://www.foreignaffairs.com/articles/global-commons/2013-06-11/coming-arctic-boom>.

⁹ Opening comments by Representative John Garamendi (CA-3) at the July 12, 2016 Committee on Transportation and Infrastructure, accessed January 14, 2017, 16:08, https://youtu.be/WjJz_rZErSE; Heather Conley, *A New Security Architecture for the Arctic, An American Perspective*, (Washington, D.C.: Center for Strategic and International Studies, 2012), 18.

Nation's policies and implementation plans start from the White House and include a dozen Federal Departments and Agencies, numerous Federal interagency committees and state level agencies.¹⁰ Critics of the latest Arctic strategies, 2015 *National Security Strategy* and 2013 *National Strategy for the Arctic Region*, call it a list of challenges with no priorities, no "future capability needs," and no budgetary plan.¹¹

What defines the Arctic region depends on whom you ask. Generally, scientists and aviators define the Arctic as the area north of the Arctic Circle (66° 34' N). Ecologists define it as the area north of the tree line with frozen ground and sparse vegetation. Climatologists use the 10° Isotherm line, where the average summer temperature does not go above 10° C (50° F). Anthropologists define it by the societies that have adapted to the Arctic.¹² The Arctic Monitoring and Assessment Programme (AMAP), one of the six working groups of the Arctic Council, has a broader definition: "the terrestrial and marine areas north of the Arctic Circle (66°32' N), and north of 62° N in Asia and 60° N in North America, modified to include the marine areas north of the Aleutian chain, Hudson Bay, and parts of the North Atlantic Ocean including the Labrador Sea."¹³ Lastly, the U. S. government defines the Arctic in 15 USC § 4111 as:

All United States and foreign territory north of the Arctic Circle and all United States territory north and west of the boundary formed by the Porcupine, Yukon, and Kuskokwim Rivers; all contiguous seas, including the Arctic Ocean and the Beaufort, Bering, and Chukchi Seas; and the Aleutian chain.¹⁴

¹⁰ "DOD Expects to Play a Supporting Role to Other Federal Agencies and Has Efforts Under Way to Address Capability Needs and Update Plans" (GAO-15-566) (Washington, D.C.: United States Government Accountability Office, 2015), 12 <http://www.gao.gov/products/GAO-15-566>.

¹¹ Robert D. Blackwell and Janine A. Davidson, "Media Call: The 2015 National Security Strategy," *Council on Foreign Relations*, February 10, 2015, <http://www.cfr.org/grand-strategy/media-call-2015-national-security-strategy/p36117>; Michaela David, "U.S. National Strategy for the Arctic Region: Strong Foothold or Thin Ice," *The Arctic Institute*, May 13, 2013, accessed November 6, 2017, <https://www.thearcticinstitute.org/us-national-strategy-for-arctic-region/>.

¹² National Snow and Ice Data Center, "What is the Arctic," accessed July 14, 2017, <https://nsidc.org/cryosphere/arctic-meteorology/arctic.html>.

¹³ Janine L. Murray, Louwrens Hacquebord, Dennis J. Gregor, and Harald Loeng, "Physical/Geographical Characteristics of the Arctic," in *AMAP Assessment Report: Arctic Pollution*, ed. Janine L. Murray (Oslo, 1998), 10.

¹⁴ 15 USC § 4111.

This thesis will use the 15 USC § 4111 when talking about the Arctic. Figures 1–3 depict the various Arctic definitions.

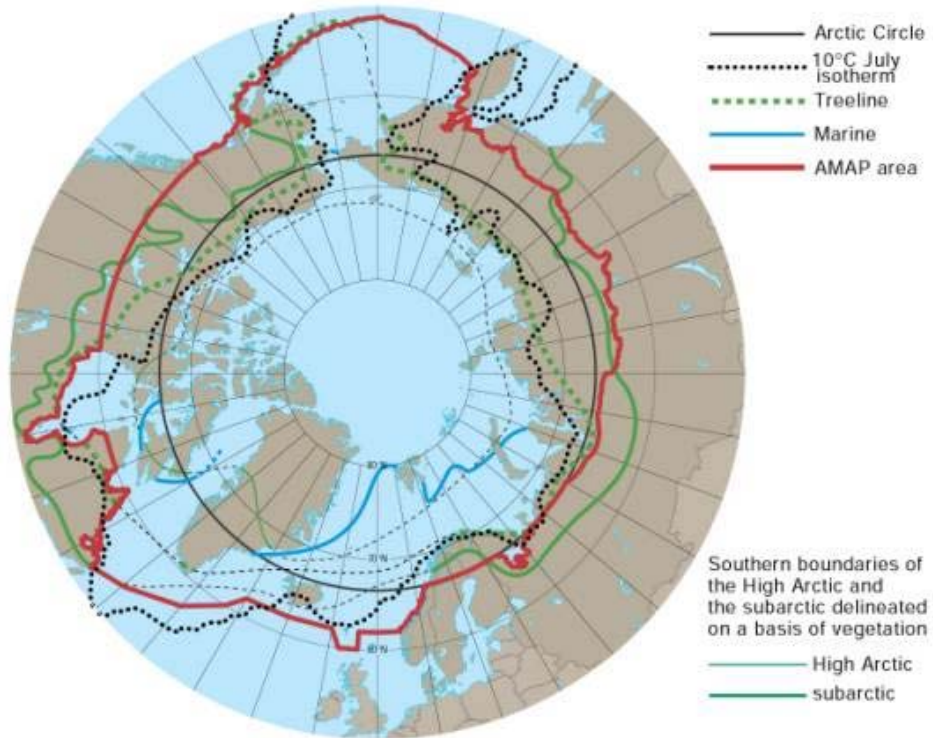


Figure 1. Map of the Arctic depicting some of the Arctic definitions.¹⁵

¹⁵ Arctic Studies Program, Arctic Monitoring and Assessment Program (AMAP), accessed July 14, 2017, <http://arcticstudies.pbworks.com/w/page/13623280/AMAP>.



Figure 2. Arctic indigenous people¹⁶



Figure 3. Arctic as defined by 15 USC § 4111

¹⁶ Encyclopedia Britannica, “Aleut,” accessed July 19, 2017, <https://www.britannica.com/topic/Aleut>.

The Arctic is an area of extremes—continuous daylight during the summer months and darkness during winter; temperatures at Barrow exceeding 60° Fahrenheit in the summer to minus 40° Fahrenheit in the winter; and periods when the sea ice makes travel nearly impossible. It encompasses 24 time zones, 4 million people from eight different nations, and 40 different ethnic groups. Unlike Antarctica, the Arctic is an ocean, albeit frozen at various places and times, surrounded by three continents.¹⁷ These extremes have not dissuaded exploration or research in the Arctic, which dates back to the time of the Vikings with modern explorations by Willem Barents (1594-1597), Henry Hudson (1607-1610), James Cook (1776-1779), and William Parry (1820s) to the first nuclear submarine, USS Prago (1993-1998) and others.¹⁸

Limited infrastructure and vast distances add to the Arctic's extremes. Barrow (pop 4,429), the largest U.S. city on the north slope of Alaska is accessible only by air and sea.¹⁹ By comparison, the largest Russian city, Murmansk (pop 305,000), is on the verge of completing its Murmansk Transportation Hub consisting of roads, railways, ports, and other facilities and serves as the western hub of the Northern Sea Route (NSR).²⁰ Dutch Harbor is the only deep-water port in Alaska, which requires deep draft vessels to anchor offshore when supplying cities north of the Bering Strait.²¹ Due to its higher latitude, there is limited/degraded communication (radio, satellite, and cellular networks) in the Arctic.²² Despite these extremes, the United States Geological Survey

¹⁷ Arctic Council, "Arctic People," accessed January 15, 2017, <http://www.arctic-council.org/index.php/en/our-work/arctic-peoples>, and Arctic Centre, University of Lapland, "Arctic Indigenous Peoples," accessed October 29, 2017, <http://www.arcticcentre.org/EN/communications/arcticregion/Arctic-Indigenous-Peoples>.

¹⁸ Woods Hole Oceanographic Institution, Polar Discovery, "The Arctic: Exploration Timeline,," accessed January 14, 2017, <http://polardiscovery.whoi.edu/arctic/1993.html>.

¹⁹ The City of Barrow, accessed January 14, 2017, <http://www.cityofbarrow.org/index.php/about-barrow>.

²⁰ Welcome to Russia, Murmansk city, Russia, accessed January 15, 2017, <http://russiatrek.org/murmansk-city>; "Huge Implications of Russia's Northern Sea Route. An Alternative to the Suez Canal?," *Hellenic Shipping News*, November 27, 2017, accessed November 27, 2017, <http://www.hellenicshippingnews.com/huge-implications-of-russias-northern-sea-route-an-alternative-to-the-suez-canal/>.

²¹ United States Coast Guard, *Arctic Strategy*, Washington, DC (May 2013), 14.

²² "European Space Agency," Arctic Poses Communications Challenges, http://www.esa.int/Our_Activities/Preparing_for_the_Future/Space_for_Earth/Arctic/Arctic_poses_communications_challenges.

(USGS) reports the Arctic may contain the world's largest unexplored areas of petroleum and another 44 billion barrels of undiscovered natural gas reserves.²³

As there is no lack of planning, debating, or studying the Arctic, there is also no shortage of opinions as to what the U.S. should or should not do:

- Retired Rear Admiral Akimoto speculated as more of the Arctic polar ice melts, it would free up the Arctic Ocean to increase naval presence and power projections. This would then ignite a new cold war and overturn previous conventional wisdom, assumption, and strategy that the Arctic is an impenetrable sea route.²⁴
- Others concur with Admiral Akimoto and urge the United States to set aside its neglect of the Arctic and if nothing else, “establish a greater maritime presence.”²⁵
- The United States should seek to demilitarize the Arctic through diplomatic means, by either leveraging existing relationships with North Atlantic Treaty Organization (NATO), or collaborating with the public and private sectors.²⁶
- The Arctic presents the world a once in a lifetime opportunity to learn from previous mishaps and “to rewrite the rules of the game for developing a frontier economy,” which if done properly is a win for the environment, the global economy, and indigenous people who call the Arctic home.²⁷
- Finally, a Task Force sponsored by the Council on Foreign Relations studied the Arctic from four broad areas: U.S. Policy, National Security, Economic, Energy and Environmental Interests, and Alaska and Alaskan Natives and concluded the Arctic is at a major turning point requiring the

²³ USGS Undiscovered oil resources in the Federal portion of the 1002 Area of the Arctic National Wildlife Refuge: an economic update, accessed January 14, 2017, <https://pubs.usgs.gov/of/2005/1217/pdf/2005-1217.pdf>; additional studies found at <https://energy.usgs.gov/RegionalStudies/Arctic.aspx>.

²⁴ RADM (Retired) Kazumine Akimoto, “Power Games in the Arctic Ocean,” October 20, 2009, accessed January 15, 2017, <http://www.institutenorth.org/assets/images/uploads/files/Power.pdf>.

²⁵ Packard C. Trent, “An evaluation of the Arctic—will it become an area of cooperation or conflict?,” (master’s thesis, Naval Postgraduate School, 2011), 92.

²⁶ Brandon J. Daigle and Brian W. James, “Assessing the Strategic Utility of the High North: The Colder War,” (master’s thesis, Naval Postgraduate School, 2016), 59-64.

²⁷ Borgensen, “The Coming Arctic Boom: As the Ice Melts, the Region Heats Up.”

United States to embark on new investments to ensure our national interests and security.²⁸

From a Homeland Security perspective, given the other threats the United States faces—terrorism, violent extremism, proliferation of weapons of mass destruction, transnational organized crime, and cyberattacks—the Arctic is a stable region despite ongoing disputes depicted in Figure 4. However, as we will see next, the national strategies, policies, and goals for the Arctic are a series of disjointed publications, which adds to the problem space.

²⁸ Thad W. Allen and Christine Todd Whitman, *Independent task force report: Vol. 75. Arctic Imperatives: Reinforcing U.S. Strategy on America's Fourth Coast*, New York, NY: Council on Foreign Relations.

[be] working among coast guards, looking at rising sea levels, northern migrations of fish stocks?³⁰

The above quote by Admiral Zukunft may lead the reader to believe the United States has either no national strategy for the Arctic or one not suited for today's Arctic environment. Commander William Dwyer's Naval Postgraduate School thesis, describes the Nation's Arctic policy, as a "wish list" that lacks direction, funding, or authority.³¹ The following explores the development of the major national strategy, policies, and goals for the Arctic; Appendix A contains a complete list of the U.S. national Arctic policies.

Implemented in 1994, *Presidential Decision Directive/NSC-26–United States Policy on the Arctic and Antarctic Regions (PDD-26)* recognized the need for leadership and international cooperation in the Arctic and Antarctica, while at the same time it acknowledged the differences between the two regions. *PDD-26* established six objectives for the Arctic and four for Antarctica. Written at the end of the Cold War, *PDD-26* recognized new opportunities for cooperation with Russia, allowing the United States to shift its emphasis in the Arctic from traditional threats to environmental, biological and natural resource issues, while maintaining "peace and stability in the region."³²

Fifteen year later, the 2009 *National Security Presidential Directive 66/Homeland Security Presidential Directive 25 (NSPD 66/HSPD 25)–Arctic Region Policy* replaced *PDD-26* and was the country's first Arctic specific national policy; *PDD-26* remains the Nation's policy for Antarctic. Although *NSPD 66/HSPD 25*'s policies are similar to those in *PDD-26* (see Appendix A), it did establish three policy elements with a defense/homeland security nexus: "National Security and Homeland Interests in the Arctic," "Maritime Transportation in the Arctic," and "Environmental Protection and

³⁰ Comment made by Admiral Paul Zukunft, Commandant of the United States Coast Guard, The Wilson Center – Arctic Circle Forum, Key Quotes from Keynote Speakers, accessed October 6, 2017, <https://www.wilsoncenter.org/event/day-1-the-wilson-center-arctic-circle-forum>.

³¹ William G. Dwyer, "The Evolving Arctic: Current State Of U.S. Arctic Policy," (master's thesis, Naval Postgraduate School, 2013), 17.

³² The White House, Presidential Decision Directive/NSC – PDD 26, "United States Policy on the Arctic and Antarctic Regions, June 9, 1994, 2-5.

Conservation of Natural Resources.”³³ Each policy element is co-chaired by multiple Departments and Agencies. Implementation plans include broad statements—project sea power, exercise sovereignty, establish a risk-based capability to address hazards due to increased presence of people, and a risk-based approach based on the best available information as the means to protect the environment and natural resources.³⁴ Despite their similarities, the creation of a separate national strategy for the Arctic separate from Antarctica recognizes the uniqueness, challenges, and opportunities of both regions.

In 2010 and again in 2015, then President Barack Obama released the *National Security Strategy*. The 2010 *National Security Strategy* mentions the Arctic in one sentence prior to the conclusion.

The United States is an Arctic Nation with broad and fundamental interests in the Arctic region, where we seek to meet our national security needs, protect the environment, responsibly manage resources, account for indigenous communities, support scientific research, and strengthen international cooperation on a wide range of issues.³⁵

In the 2015 *National Security Strategy*, the Arctic appears in three sections: “Climate Change,” “Air and Maritime Security,” and “Advance our Energy Security.”³⁶ Given the threats and challenges facing the U.S. at this time, the Arctic is a footnote to defeating al-Qa’ida and its affiliates, improving our relationship with China, India, and Russia, reducing the spread of nuclear weapons and preventing cybersecurity threats.³⁷

Calling the Arctic “one of our planet’s last great frontiers,” the 2013 *National Strategy for the Arctic Region* identified “three lines of effort: Advance United States Security Interest, Pursue Responsible Arctic Region Stewardship and Strengthen International Cooperation.”³⁸ These three lines of effort (LOEs) follow four guiding principles: “Safeguard Peace and Stability, Make Decisions Using the Best Available

³³ White House, National Security Presidential Directive 66/Homeland Security Presidential Directive 25 (NSPD-66/HSPD-25), “Arctic Region,” January 9, 2009, 1-14.

³⁴ Ibid., 12-13.

³⁵ “National Security Strategy,” May 2010, 50.

³⁶ The White House, “National Security Strategy,” February 2015, Washington, DC., 12, 13, and 16.

³⁷ Ibid., 1, 3, and 27.

³⁸ White House, National Strategy for the Arctic Region, Washington, D.C. (May 10, 2013), i and 2.

Information, Pursue Innovative Arrangements, and Consult and Coordinate with Alaska Natives.”³⁹ Unlike other strategic documents, which fall short on details, that is not the case for the 2013 *National Strategy for the Arctic Region*. In 2014, the Arctic Executive Steering Committee (AESC) released the *Implementation Framework for the National Strategy for the Arctic Region (Framework)*; the AESC updated the *Framework* in 2016. Beginning with the 2014 *Framework* and continuing with the 2016 version, the *Framework* identifies “specific actions supported by programs overseen by Federal entities” for the three LOEs. LOE 1, “Advance U.S. Security Interests,” and three actionable programs from LOE 3, “Strengthen International Cooperation,” apply to this thesis.⁴⁰ LOE 1 states the highest priority for the Federal Government is “protecting the American people, our sovereign territory and rights, and the natural resources and other interests of the United States.”⁴¹ The National Security Council (NSC) coordinates efforts for LOE 1, which has eight actionable programs. The Department of State coordinates LOE 3 and as experts debate the usefulness of the Arctic Council’s governance; at the heart of LOE 3 is cooperation and not conflict.⁴² Going it alone in the Arctic may display the Arctic’s pioneering spirit, but this is often fraught with unforeseen challenges and pitfalls. In the Arctic there are few, if any, issues affecting a single country. See Appendix B for details on LOEs 1 and 3.

There are a couple other documents of note. The 1959 Antarctic Treaty along with the 1980 Convention on the Conservation of Antarctic Marine Living Resources and the 1991 Environmental Protection Protocol established an international framework ensuring Antarctica remains a “zone of peace and international cooperation”⁴³ No similar treaty or international conventions/protocols exists for the Arctic. Finally, the United Nations Convention on the Law of the Sea (UNCLOS) replaced four 1958 treaties and went into

³⁹ Ibid., 2-3.

⁴⁰ Arctic Executive Steering Committee, “Implementation Framework for the National Strategy for the Arctic Region,” Washington, D.C. (March 2016), 3.

⁴¹ Ibid., 5.

⁴² Douglas C. Nord, “The Challenge of Arctic Governance,” *Wilson Quarterly*, Summer 2017, accessed October 8, 2017, <https://www.wilsonquarterly.com/quarterly/into-the-arctic/the-challenge-of-arctic-governance/>.

⁴³ Ibid., 5 and PDD-26, 5.

effect in 1994. Although the United States ratified the four 1958 treaties that formed the basis for UNCLOS, the United States has yet to ratify UNCLOS, but follows it as a matter of customary international law.⁴⁴ UNCLOS provides a legal framework for commercial and military shipping and use of natural resources within the world's oceans. Support for UNCLOS includes both sides of the aisle in Congress, Secretaries of State from both parties and the military service chiefs.⁴⁵ However, those for and against ratifying UNCLOS have valid points as to why the United States should or should not ratify it. I believe the U.S. should ratify UNCLOS, however, as U.S. policy makers debate the pros and cons of UNCLOS, other Arctic and non-Arctic nations have asserted their rights in the Arctic, with the United States increasingly finding itself at a considerable disadvantage in the Arctic regarding legal rights and limitations for energy exploration, telecommunication cables, and national security issues.⁴⁶ By contrast, all the other Arctic Council nations ratified UNCLOS, along with some 150 other countries.⁴⁷ UNCLOS serves as the foundation for their Arctic Policy, which in turn provides a common framework for other issues in the Arctic. As more and more of the polar ice cap melts, the Arctic is becoming the 21st century's space race; some speculate that unless the United States takes a greater leadership role, other countries will begin to dictate the rules for this new race.⁴⁸

3. Summary

NSPD 66/HSPD 25, the 2015 *National Security Strategy* and the 2013 *National Strategy for the Arctic Region* along with its *Implementation Plan* form the basis of the

⁴⁴ William Gallo, "Why hasn't the US Signed the Law of Sea Treaty," Voice of America, June 6, 2016, <http://www.voanews.com/a/united-states-sign-law-sea-treaty/3364342.html>

⁴⁵ Stewart Patrick, "(Almost) Everyone Agrees: The U.S. Should Ratify the Law of the Sea Treaty," The Atlantic, June 10, 2012, <http://www.theatlantic.com/international/archive/2012/06/-almost-everyone-agrees-the-us-should-ratify-the-law-of-the-sea-treaty/258301/>.

⁴⁶ Allen and Whitman, "Arctic Imperatives – Reinforcing U.S. Strategy on the America's Fourth Coast."

⁴⁷ United Nations Convention on the Law of the Sea, Annex II, Commission on the limits of the Continental Shelf, 1982, Article 76, http://www.un.org/Depts/los/convention_agreements/texts/unclos/annex2.htm.

⁴⁸ Josh Rogin, "Who is in Charge of Arctic Policy?" *Foreign Policy*, May 7, 2010. http://thecable.foreignpolicy.com/posts/2010/05/07/who_s_in_charge_of_arctic_policy.

national Arctic policies for the United States today. From these foundational documents, specific Federal Executive Departments and Agencies, and others developed their Arctic policies.

Based on the above foundational documents, I will use the following strategic national Arctic goals to assess the effectiveness of the strategic patience and persistence strategy with respect to the four scenarios presented in Chapter V:

- Protect national security interests—these include unilateral or coalition operations across the spectrum of operations (see Figure 5) in order to deter war, terrorist attacks, and criminal acts using all means of national power (diplomacy, information, military and economics).⁴⁹
- Protect the homeland—ensure safety and security of the American people through secure borders and enforcement of laws; protect the environment by “balancing environmental concerns with economic and national security priorities.”⁵⁰
- Ensure freedom of the sea—the Arctic is primarily a maritime domain currently with three shipping routes: the Northwest Passage (NWP), the NSR, and the Arctic Bridge Route and one future route Transpolar Sea Route (TSR), depicted in Figure 6. Freedom of the seas allows the U.S. to project sea power, ensures movement of people and commerce and provides the ability to respond to emergencies and incidents.⁵¹

⁴⁹ Frank Hoffman, Ph.D., “The Contemporary Spectrum of Conflict: Protracted, Gray Zone, Ambiguous, and Hybrid Modes of War,” The Heritage Foundation, accessed October 9, 2017, <http://index.heritage.org/military/2016/essays/contemporary-spectrum-of-conflict/> and Spectrum of Conflict, accessed October 9, 2017, <http://ndupress.ndu.edu/Portals/68/Images/jfq/jfq-75/torruella-figure1.jpg>.

⁵⁰ Borgensen, “The Coming Arctic Boom: As the Ice Melts, the Region Heats Up.”

⁵¹ NSPD-66/HSPD-25, 3-4, 9, 12-13.

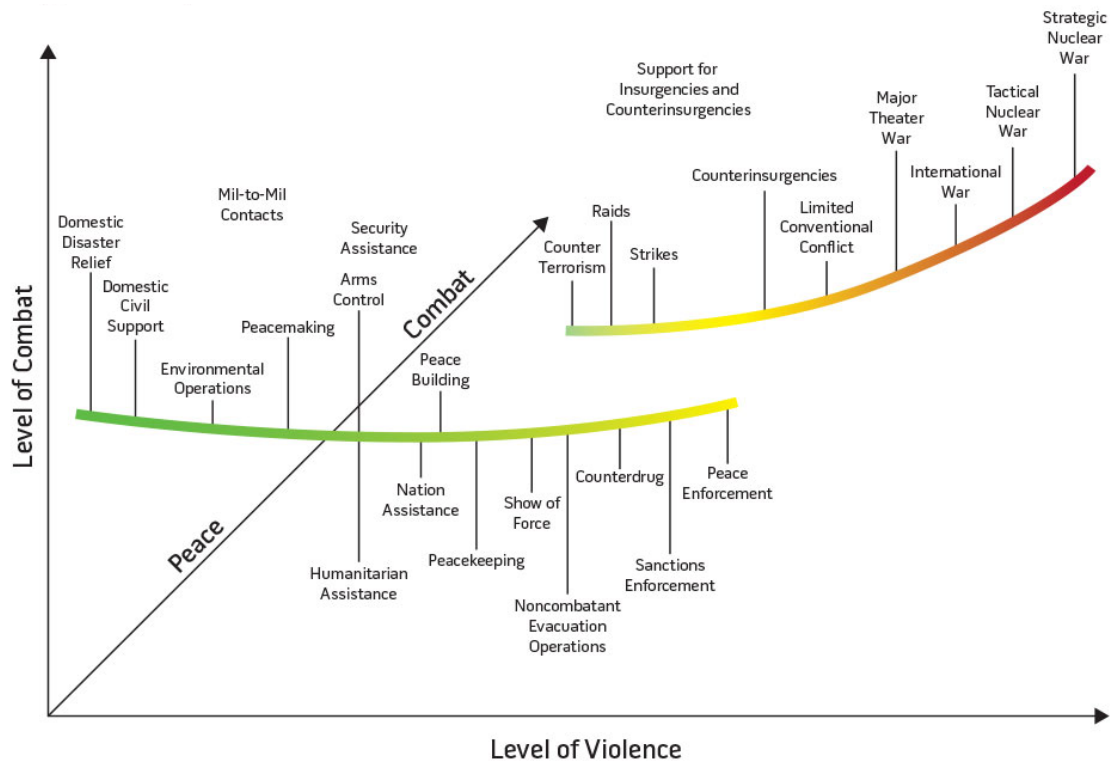


Figure 5. Spectrum of operations – Disaster relief to nuclear war⁵²

⁵² Source: <http://ndupress.ndu.edu/Portals/68/Images/jfq/jfq-75/torruella-figure1.jpg>.

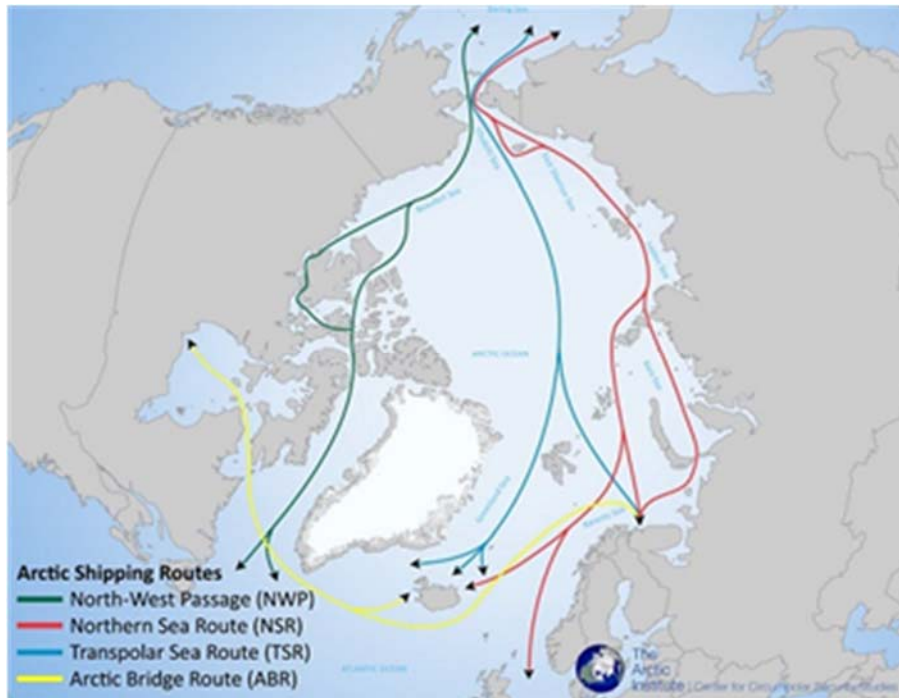


Figure 6. Arctic shipping routes⁵³

B. RESEARCH QUESTION

What strategy should the United States pursue in the Arctic? The Arctic is currently a region posing little threat to U.S. national security yet policy makers continue to evaluate, study, and debate the Arctic's strategic role in lieu of making a decision in a budget-constrained environment.⁵⁴ This thesis assesses the costs, risks, and benefits of applying the strategic patience and persistence as a strategy for the Arctic. The 2015 *National Security Strategy* introduced this as an alternative to spending billions to upgrade communication systems, improve infrastructure and domain awareness, train and equip forces, and build Arctic specific capabilities (e.g., polar capable icebreaker).⁵⁵ I will explore this strategy in general and specifics in Chapter IV.

⁵³ Source: <http://www.maritime-executive.com/article/Arctic-Shipping-is-Not-Chinas-New-Silk-Road-2014-02-14>.

⁵⁴ Heather Conley, *A New Security Architecture for the Arctic, An American Perspective*, (Washington, D.C.: Center for Strategic and International Studies, 2012), 18.

⁵⁵ "National Security Strategy," February 2015, ii.

C. THESIS OUTLINE

Chapter II is a survey of the literature concerning the Arctic using five broad categories: climate change; air and maritime safety; energy security; diplomacy; and homeland security. The first three categories are from 2015 *National Security Strategy* while the last two cover overarching Arctic issues.

This thesis develops and assesses four different scenarios as its method. Chapter III, provides an overview of the scenario method, namely how it differs from models, simulations and games. Scenarios view the future not as a continuum of the present day but one with unlimited possibilities not constrained by our experiences, emotions, and expectations. I used an 8-step process to develop the four scenarios.

Chapter IV provides an overview of the strategic patience and persistence strategy by examining other wait-and-see strategies as well as critiques of this strategy.

Chapter V begins by examining key nations, issues, and factors affecting the future of the Arctic. Next, I develop four plausible future scenarios for the Arctic and determine if the U.S. can achieve the three national Arctic strategy goals using the strategic patience and persistence strategy.

Chapter VI analyzes each of the scenarios for their qualitative effectiveness to achieve the U.S. national security interests in the Arctic using three categories: costs, risks, and benefits.

Chapter VII concludes the thesis with a wrap-up, recommendations for policy makers and areas for future study.

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II. LITERATURE REVIEW

A. OVERVIEW

The literature reviewed is from a wide range of sources—U.S. and foreign government websites, professional journals, intergovernmental agencies, think tanks and media reports. It examines the current homeland security policies affecting the Arctic and uses as its framework the 2015 *National Security Strategy*, which identifies three broad areas of interest for the Arctic: Climate Change, Air and Maritime Security and Energy Security.⁵⁶ Additionally, the review looks at diplomatic and homeland security policies and issues affecting the Arctic.

The United States is an Arctic nation because of Alaska. Other Arctic nations have a greater Arctic presence—Canada has over 160,000 miles of coastline in the Arctic, by comparison, Alaska has 6,400 miles—and their policies are more comprehensive and unified when compared to the United States.⁵⁷ This split in policy is across all three areas—Climate Change, Air and Maritime Safety, and Energy Security. A common theme in the literature is the United States having a “domestic and foreign” Arctic policy.⁵⁸

Differing geographic terms within the literature add confusion when discussing the Arctic. The Arctic is a region when viewed through *NSPD 66/HSPD 25–Arctic Region Policy*. Within the National Ocean Policy Implementation Plan Council, the Arctic is a body of water lumped together with the Great Lakes. From Department of Defense (DOD) perspective, the Arctic is a multi-domain geographical area under the

⁵⁶ “National Security Strategy,” February 2015, The White House, Washington, D.C., 12, 13 and 16.

⁵⁷ Fly Alaska, Interesting Facts about Alaska, accessed November 15, 2018, <http://www.flyalaska.com/alaskafacts.html>.

⁵⁸ Philip E. Steinberg, “Maintaining hegemony at a distance: ambivalence in US Arctic policy,” in *Polar Geopolitics?: Knowledges, Resources and Legal Regimes*, ed: Richard C. Powell and Klaus Dodds (MA: Northampton: Edward Elgar, 2014), 113-130.

Command and Control of two Combatant Commanders (U.S. Northern Command and U.S. European Command).⁵⁹

B. DIPLOMATIC

When looking at policies affecting the Arctic, one might be tempted to restrict this to just U. S. policies, directives, laws and the like. However, the Arctic is not a nation-state, which the United States can negotiate treaties, trade agreements, security issues, etc. Rather it is a geographical area encompassing the territory of five countries Canada, Denmark, Norway, the Russian Federation, and the United States—commonly known as the Arctic Five, governed by the Arctic Council.⁶⁰

The Arctic Council is the “preeminent intergovernmental forum for addressing issues related to the Arctic” and consists of three groups. Member States are the sole decision makers for the Arctic Council whose Chairmanship rotates every two years between Member States; these include the Arctic Five plus Finland, Iceland, and Sweden. Permanent Participants have full consultation rights and come from six international organizations representing over 500,000 indigenous people. Finally, Observer status is open to non-Arctic countries and select organizations, currently thirteen countries are Observers to the Arctic Council.⁶¹ The Arctic Council is in a sense a mini-United Nations, with each Arctic nation advocating for its own national interest, which at times may conflict with the U.S.

There is almost universal agreement the United States’ national Arctic policies are woefully inadequate.⁶² This unpreparedness is not limited to the United States but also extends to the European Union (EU) and NATO and seems likely to remain this way with

⁵⁹ Marcus Weisgerber, “Congress Will Rethink Combatant Command Boundaries,” *Defense One*, February 25, 2016.

⁶⁰ Ibid., 15 U.S.C. 4111.; Eye on the Arctic, “Blog: The Return of the Arctic Five,” accessed November 12, 2016, <http://www.rcinet.ca/eye-on-the-arctic/2015/07/23/blog-the-return-of-the-arctic-five/>.

⁶¹ United States Department of State, Diplomacy in Action, Arctic Council, accessed November 18, 2016, “<http://www.state.gov/e/oes/ocns/opa/arc/ac/>.”

⁶² Dwyer, “The Evolving Arctic: Current State of U.S. Arctic Policy,” 2.

the new administration.⁶³ There are a variety of policies within the Executive Departments and Agencies, each approaching the Arctic through their own lens: DOD—defense and security; National Oceanic & Atmospheric Administration—stewardship and scientific data collection; United States Coast Guard (USCG) —maritime awareness, partnerships, modernization, and so forth—with little or no synchronization between the Departments and Agencies.⁶⁴ This approach provides redundancy and adaptiveness, but at an increase in costs as this is an uncoordinated effort.

C. CLIMATE CHANGE

The 2015 *National Security Strategy* identified climate change as “an urgent and growing threat to our national security.”⁶⁵ A large volume of the literature on the topic focused on politicians, scientists, and activists debating the science, or lack of it, around climate change. Former President Obama made climate change a cornerstone of his administration.⁶⁶ Scientists have little to no doubt about the climatic changes taking place in the Arctic today, but notwithstanding this, there is a political debate about this issue that might influence U.S. policy regarding the Arctic.⁶⁷ While United States policy makers debate the merits of the science behind global warming, other countries are

⁶³ European Union, External Action, *EU Arctic Policy*, June 15, 2016, accessed January 1, 2017, https://eeas.europa.eu/headquarters/headquarters-homepage/418/eu-arctic-policy_en; Coffey, Luke and Daniel Kochis, “NATO Summit 2016: Time for an Arctic Strategy 2016,” *The Heritage Foundation*, June 16, 2016, <http://www.heritage.org/research/reports/2016/06/nato-summit-2016-time-for-an-arctic-strategy>; Breum, Martin, “Trump, Thule and America’s uncertain Arctic Future,” *The Arctic Journal*, November 18, 2016, <http://arcticjournal.com/politics/2708/trump-thule-and-americas-uncertain-arctic-future>; Joël Plouffe, U.S. Arctic Foreign Policy in the Era of President Trump: A Preliminary Assessment, *Canadian Global Affairs Institute* (Calgary, CA), November 2017, 1.

⁶⁴ United States. National Oceanic and Atmospheric Administration. *NOAA’s Arctic Vision & Strategy* ([Silver Spring, Md.]: National Oceanic and Atmospheric Administration, 2010).; “United States Coast Guard Arctic Strategy,” United States Coast Guard Headquarters, Washington, D.C., (May 2013).

⁶⁵ “National Security Strategy,” February 2015, 12.

⁶⁶ Barack Obama, *Climate Change and President Obama’s Action Plan*, accessed December 29, 2016, <https://www.whitehouse.gov/president-obama-climate-action-plan>.

⁶⁷ Taylor, P.C., W. Maslowski, J. Perlwitz, and D.J. Wuebbles, 2017: *Arctic Changes and their Effects on Alaska and the Rest of the United States*, 303; Clare Foran, “Donald Trump and the Triumph of Climate-Change Denial,” *The Atlantic*, December 25, 2016, accessed December 29, 2016, <https://www.theatlantic.com/politics/archive/2016/12/donald-trump-climate-change-skeptic-denial/510359/>; *The Guardian*, Climate Change scepticism, accessed December 29, 2016, <https://www.theguardian.com/environment/climate-change-scepticism>.

moving forward with their policies and plans for the Arctic. The literature suggests this policy difference is due in part to geography and indigenous people.

The impact of climate change on indigenous people is seen by the effects of rising sea levels on where they can live, their livelihood (hunting and fishing), and health concerns and from an increase in tourism and other human activities. By contrast, the strategies for Canada, Norway, and the Kingdom of Denmark incorporate the connectedness of the indigenous people to the land.⁶⁸

D. AIR AND MARITIME SAFETY

As in the previous section, the use of terms within the literature blurs the distinctions between air and maritime safety versus air and maritime security. The International Maritime Organization (IMO) established the Polar Code, which governs shipbuilding and operations in the polar region.⁶⁹ From the IMO perspective, maritime safety means ships built to withstand the harsh arctic environment and warning systems to avoid hazards.

The DOD and the USCG both agree that maritime awareness in the Arctic exists today, but the ability to conduct other missions such as search and rescue, disaster response, and maritime security are extremely limited due to long distances, harsh environment, limited infrastructure, and resources.⁷⁰ A similar case exists for air safety—an aircraft can safely traverse the Arctic, but there are limited search and rescue assets,

⁶⁸ Government of Canada, Global Affairs Canada, *Canada and the Arctic*, <http://www.international.gc.ca/arctic-arctique/index.aspx?lang=eng>; Government of Canada. “Statement on Canada’s Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada’s Northern Strategy Abroad.” 6.; Norwegian Ministry of Foreign Affairs, *The Norwegian Government’s High North Strategy* (December 2006), <https://www.regjeringen.no/globalassets/upload/UD/Vedlegg/strategien.pdf>, 7.; Daniel Buikema Fjaertoft, “Norwegian Grand Strategy and the Arctic,” *Global Brief* (June 27, 2011), <http://globalbrief.ca/blog/2011/06/27/norwegian-grand-strategy-and-the-arctic/>; Kingdom of Denmark, “Denmark, Greenland, and the Faroe Islands: Kingdom of Denmark Strategy for the Arctic 2011–2020,” (Ministry of Foreign Affairs of Denmark, Greenland and the Faroe Islands, August 2011). http://www.uniset.ca/microstates/mss-denmark_en.pdf.

⁶⁹ International Maritime Organization, *Shipping in Polar Waters*, accessed December 15, 2016, <http://www.imo.org/en/MediaCentre/HotTopics/polar/Pages/default.aspx>.

⁷⁰ United States Department of Defense, *Report to Congress on Arctic Operations and the Northwest Passage*, May 2011, 14-15.

communication systems, and infrastructure (e.g., hospitals) to rescue and/or recover personnel from an aircraft accident or incident.

The consensus within the literature is that all nations want to enjoy freedom of navigation and overflight regardless of the where this takes place. Yet as more and more of the Arctic becomes navigable for shipping, there is a growing disparity between the Arctic and non-Arctic nations on shipping routes. China, Japan, and South Korea are the 2nd, 5th, and 6th largest exporting nations in the world, respectively, yet they are only Observers to the Arctic Council, with no power or ability to change policy or direction of the Arctic Council.⁷¹ Norway is an active member of the Arctic Council and “views the Arctic as a top foreign and domestic policy priority.” As such, it seeks to expand the influence of the Arctic Council, urging cooperation is better than conflict and as Espen Barth Eide, former Norwegian Minister of Defence said, “[w]e want people to join our club. That means they will not start another club.”⁷²

E. ENERGY SECURITY

Energy security within the Arctic occurs on a national level and involves more than just the Arctic Nations due in large part to opening of previously inaccessible areas for exploration of hydrocarbons. As in the previous sections, the United States has an Alaskan energy policy, drilling permitted in Prudhoe Bay, and another policy for the Arctic, as seen in former President Obama’s Executive Order banning drilling in the Arctic.⁷³ President Trump overturned the Executive Order, which now awaits a decision from the District Court for the District of Alaska.⁷⁴ While we are at odds with Russia

⁷¹ Central Intelligence Agency (CIA), CIA Factbook, Country Comparisons – Exports, accessed December 29, 2016, <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2078rank.html>.

⁷² Arctic Council, Norway and the Arctic Region, accessed, November 12, 2016, <http://www.arctic-council.org/index.php/en/about-us/member-states/Norway>; Morten Brugård, “Norway says yes to China in Arctic Council”, Barents Observer. (January 22, 2013), <http://barentsobserver.com/en/arctic/2013/01/norway-says-yes-china-arctic-council-22-01>.

⁷³ Exec. Order No. 13754, 3 C.F.R. 90669 (2016), <https://www.federalregister.gov/documents/2016/12/14/2016-30277/northern-bering-sea-climate-resilience>.

⁷⁴ Donald Trump, Executive Order 13795, “Implementing an American-First Offshore Energy Strategy,” *Code of Federal Regulations*, title 3 (2017 comp): 20815; EarthJustice, “LAWSUIT CHALLENGES TRUMP REVERSAL OF ARCTIC AND ATLANTIC DRILLING BAN,” May 3, 2107, accessed November 13, 2017, <https://earthjustice.org/news/press/2017/lawsuit-challenges-trump-reversal-of-arctic-and-atlantic-drilling-ban>.

over the hacking of the Democratic National Committee email system, Syria and other events, Norway and others acknowledge Russia is not the same Russia as during the Cold War, but a neighbor they must engage for their own security and to ensure sustainability of the natural resources they both share.

Within the literature is a three-way tension when it comes to energy security. On one side is the science, which claims the Arctic has the world's largest untapped gas and oil reserves in the world. Environmental groups challenge the amount and value of gas and oil in the Arctic, especially in light of nations, companies and individuals moving away from gas and oil to renewable energy. The current administration wants to open up the Arctic for exploration; however, this back-and-forth on Arctic policy creates confusion with our allies and uncertainty for companies looking to invest in the Arctic. The third group comprises those in the gas and oil industry who predict that it will be years before wind and solar replace gas and oil, and in the meantime the indigenous people and their communities depend upon the gas and oil industry for jobs. There is significant unpredictability about how quickly the energy system will change from oil and gas to renewable energy. A specific issue is the expense of drilling for oil and gas in the Arctic given prevailing oil prices, i.e., cheaper reserves within the Organization of the Petroleum Exporting Countries (OPEC) and other competing sources of oil and gas. Finally, oil prices are sensitive to supply/demand balance as seen in 2014 when a 2 million barrel oversupply caused oil prices to collapse from \$100/barrel to \$50.⁷⁵ Other research suggests oil prices will never go above \$50/barrel due to new techniques to extract oil from shale.⁷⁶

F. HOMELAND SECURITY

Finally, there are a variety of documents governing homeland security in the United States from the DOD, United States Navy, and USCG. Each highlights their

⁷⁵ Clifford Krauss, "Oil Prices: What to Make of the Volatility," *New York Times*, June 14, 2017, accessed November 13, 2017, <https://www.nytimes.com/interactive/2017/business/energy-environment/oil-prices.html>.

⁷⁶ Robert Looney, "Does OPEC have a Future?," August 25, 2107, accessed November 13, 2017, <http://web.nps.edu/Video/portal/Video.aspx?enc=yqTjB6mWdb9iHdUvQbdI%2fZrMnFNvdd5X>.

specific role and mission in the Arctic but given the fiscal environment and other security issues, the Arctic remains a low priority. By contrast, the other Arctic Nations have a more comprehensive and cohesive strategy and plan. Here are samples from Canada, Denmark, Norway, and from the Observer Nations on the Arctic Council.

Canada's Arctic strategy is rooted in their *Northern Strategy*. This strategy recognizes their connectedness to the Arctic—geographically, its native peoples, and the need for leadership as the Arctic opens up to new opportunities. Its “first and most important pillar” is sovereignty and its first priority is to resolve boundary issues with Denmark and the United States.⁷⁷ Canada's unambiguously states their commitment to the Arctic in the closing of their *Northern Strategy*:

Through our Arctic foreign policy, we are also sending a clear message: Canada is in control of its Arctic lands and waters and takes its stewardship role and responsibilities seriously. Canada continues to stand up for its interests in the Arctic. When positions or actions are taken by others that affect our national interests, undermine the cooperative relationships we have built, or demonstrate a lack of sensitivity to the interests or perspectives of Arctic peoples or states, we respond.⁷⁸

To date, Canada is the only ally of the United States moving ahead in the Arctic with respect to defense, law enforcement, and infrastructure development.⁷⁹

The Kingdom of Denmark includes Denmark, Greenland, and the Faroe Islands. Four pillars makeup Denmark's Arctic strategy: security, self-sustaining growth and development, protecting the environment, and international cooperation. Building on the *Danish Defence Agreement 2010–2014*, the *Danish Defence Agreement 2013–2017*, recognized the strategic importance of the Arctic and need for an increase military presence in the Arctic to respond to spills and accidents from increased shipping in the

⁷⁷ Government of Canada, *Canada's Northern Strategy*, April 13, 2015, 9-10.

⁷⁸ Ibid., 27.

⁷⁹ Mate Wesley Aerandir, *Breaking the Ice: Potential U.S.-Russian Maritime Conflict in the Arctic* (Monterey, California: Naval Postgraduate School, 2012), 106.

Arctic.⁸⁰ Like Canada, the Danish government's policies and implementation plans are well ahead of the U.S. government.

Norway's Arctic strategy "considers the High North to be Norway's most important strategic priority area in the years ahead," a plan in one estimation "a step or two ahead" of Russia, Canada, Denmark and the United States.⁸¹

Finally, of the thirteen Observers countries on the Arctic Council, the United Kingdom, Germany, the Netherlands, Poland, and Italy each have an Arctic Policy, with China, Japan, and South Korea nearing completion on their Arctic policy.⁸²

G. CONCLUSION

The Arctic by all indications is heating up—not only the weather but also the actions from numerous countries. Those nations not part of the Arctic Council see great potential in the Arctic—natural resources, decreased shipping times, etc. Except for Russia, the Arctic nations are democratic countries that seek peaceful relations with their neighbors, have reasonable laws and courts to settle disputes, and have stable economies which taken together should result in a peaceful Arctic for years to come.⁸³ Despite historic low oil prices and a harsh environment, Russia is pressing ahead with its ambitious oil exploration program, improvements to infrastructure in the Arctic, and building numerous military bases and airfields. While Arctic and non-Arctic nations have strategies and policies in place, the United States is still a checkerboard of strategies, policies, and plans, with no single Department or Agency synchronizing the nation's Arctic policy, activities, or infrastructure development.

⁸⁰ Danish Ministry of Defence, Danish Defence Agreement 2010–2014 (June 24, 2009); Danish Ministry of Defence, Danish Defence Agreement 2013–2017 (April 10, 2014).

⁸¹ Daniel Buikema Fjaertoft, "Norwegian Grand Strategy and the Arctic," *Global Brief*, June 27, 2011, accessed November 21, 2016, <http://globalbrief.ca/blog/2011/06/27/norwegian-grand-strategy-and-the-arctic/>.

⁸² United States Department of State, Final Report of International Security Advisory Board on Arctic Policy, September 21, 2016.; Nengye Liu, The Diplomat, *China's Emerging Arctic Policy*, December 14, 2016, accessed January 1, 2017, <http://thediplomat.com/tag/china-arctic-strategy/>; Aki Tonami and Stewart Watters, *Japan's Arctic Policy: The Sum of Many Parts*, Arctic Yearbook 2012, 93-103.; Martin Kossa, *South Korea's Positioning in the Arctic*, September 30, 2015, accessed January 1, 2017, <http://www.worldpolicy.org/blog/2015/09/30/south-korea%E2%80%99s-positioning-arctic>.

⁸³ Borgerson, "Arctic Meltdown: The Economic and Security Implications of Global Warming," 4.

III. METHOD

In this chapter, I begin by examining how decision makers fail to accept an alternate future and the limitations of models, simulations, and games to predict these. As an alternative to these three approaches, I introduce the concept of scenario planning and the process to develop scenarios as a framework to understand and incorporate uncertainty into one's decision-making process. The thesis will use a modified "double uncertainty" matrix also known as the "2x2 matrix approach" utilizing scenarios representing four possible futures to evaluate the strategic patience and persistence strategy. These scenarios incorporate the most important factor, Russia, with the most uncertain factor, the rate of melting ice in the Arctic.⁸⁴

A. SCENARIO PLANNING

1. Background

"All our knowledge is about the past, and all our decisions are about the future."⁸⁵ Likewise, at the end of an investment commercial or in the fine print of a mutual fund perspective, we hear or read; past performance is no guarantee of future results. These two statements may seem self-evident but consider the following real world events:

- Early last century, Brigadier General Billy Mitchell proposed using airplanes to sink battleships by dropping bombs on them. The U.S. Secretary of War Newton Baker remarked, "That idea is so damned nonsensical and impossible that I'm willing to stand on the bridge of a battleship while that nitwit tries to hit it from the air." Josephus Daniels, Secretary of the Navy, was also incredulous: "Good God! This man should be writing dime novels." Even the prestigious Scientific American proclaimed in 1910 "to affirm that the aeroplane is going to

⁸⁴ Muhammad Agar, Tugrul U. Daim and Anotnie Jetter, "A review of scenario planning," *Futures* 46(2013): 34, <https://doi.org/10.1016/j.futures.2012.10.003>.

⁸⁵ The quotation was taken from a presentation by Charles Yoe, "Scenario-Based Planning and Decision Making: Guidelines for Use in the U.S. Army Corps of Engineers Planning Studies and Literature Review," slide 4 of 37, accessed July 16, 2017, <https://www.slideshare.net/nrazn/scenario-based-planning-and-decisionmaking>.

‘revolutionize’ naval warfare of the future is to be guilty of the wildest exaggeration.”⁸⁶

- “During the war [World War II], the war with Japan had been re-enacted in the game rooms here by so many people and in so many different ways that nothing that happened during the war was a surprise—absolutely nothing except the kamikaze tactics towards the end of the war; we had not visualized those.”⁸⁷
- Writing with the “benefit and handicap of hindsight” the 9/11 Commission identified four kinds of failures: “imagination, policy, capabilities, and management.” The report continues with three failures of imagination: Historical, Understanding the Danger, and Institutional.⁸⁸ In April 2001, the North American Aerospace Defense Command along with other Defense agencies conducted exercise Positive Force 01. The exercise tested the Department of Defense’s ability to respond to multiple threats.⁸⁹ A proposed scenario of a terrorist group hijacking an airplane and flying it into the Pentagon was rejected as too unrealistic.⁹⁰

These events highlight how individuals and organizations remained focus on the here and now and assumed future events and outcomes would continue as they always had; no one envisioned a different future.⁹¹ After Action Reports, Lessons Learned, Congressional Hearings, Commission Reports (e.g. Warren, Tower, 9/11) and similar, chronicle what happened in order to prevent a repeat occurrence. Arie de Geus proposed five theories why managers and leaders fail to see what in hindsight was obvious.⁹²

⁸⁶ Paul J. H. Shoemaker, “Scenario Planning: A Tool for Strategic Thinking,” *MIT Sloan Management Review*, accessed September 13, 2017, <http://sloanreview.mit.edu/article/scenario-planning-a-tool-for-strategic-thinking/>.

⁸⁷ Admiral Chester Nimitz, United States Naval War College, “Gaming,” accessed July 16, 2017, <https://www.usnwc.edu/Research---Gaming/War-Gaming/Documents/RAGE/Gaming.aspx>.

⁸⁸ *The 9/11 Commission Report: Final Report of the National Commission on Terrorists Attacks Upon the United States*, official government edition, Washington, DC, National Commission on Terrorists Attacks on the United States, 2009, 339-360.

⁸⁹ “Positive Response,” GlobalSecurity.org, June 9, 2002, accessed July 29, 2017, <http://web.archive.org/web/20030107033310/http://www.globalsecurity.org/military/ops/positive-force-ex.htm>.

⁹⁰ Julian Borger, “Hijackers Fly into Pentagon? No Chance, Said Top Brass,” *The Guardian*, April 15, 2004, accessed July 29, 2017, <https://www.theguardian.com/world/2004/apr/15/usa.september11>.

⁹¹ Sir James Cable, “Surprise and the single scenario,” *The RUSI Journal*, 128:1, 33-38, DOI: 10.1080/03071848308522214

⁹² Arie de Geus, *The Living Company* (Boston, MA: Harvard Business School Press: 1997), 28-37.

1. Managers/leaders are stupid. de Geus suggests managers and leaders are not deaf, dumb, and stupid but rather, lack the skills “to cope with the changing nature of their environment.”⁹³
2. We can see only when a crisis opens our eyes. No one likes change for the sake of change, and at times, our nature is to resist change. While some might sum this up as no pain–no gain, de Geus contents a “company must act on the signals” not the pain.⁹⁴
3. We can see only what we have experienced. de Geus tells the story of British explorers who in the early part of last century brought a tribal chief from the mountain regions of Malaysia to Singapore. The chief, whose tribe was still in the Stone Age, witnessed many things he had never seen before–ships, multi-story buildings, streets, diversity of people. When researchers asked him what the most important thing he saw was, he said he had never seen a man carry so many bananas. Buildings, ships, etc., were foreign to him, but a man pushing a cart loaded with bananas was something he could understand. This theory may explain why some are unable to react or be proactive. However, what accounts for the success and longevity of a dozen or so companies who are members of the Tercentenarian Club whose only membership requirement–be in existence for at least 300 years!⁹⁵ Something else must be at work.
4. We cannot see what is emotionally difficult to see. To illustrate this theory, de Geus uses the rise of the oil industry in the 1970s and its fall in the 1980s. When oil went from \$2 a barrel to \$30, those responsible for it, the Exploration and Production (E&P) sector of the company were rewarded and promoted to top management positions. Later when oil prices retreated to \$10 per barrel, company executives, mostly with E&P backgrounds, rationalized if we give it time things will get better. Their emotions got the better of them. While you can never ignore emotions, we do need to factor them in one’s decision process in order to move forward.⁹⁶
5. We can see only what is relevant to our view of the future. This theory led de Geus to research conducted by David Ingvar, who concluded our brain is “constantly attempting to make sense of the future.” As you read my thesis, your mind is wandering to other things: what will I have for lunch,

⁹³ Ibid., 28.

⁹⁴ Ibid., 30.

⁹⁵ Ibid., 31-32 and Harry Wallop, “They’re 300 years old and still in business,” *The Telegraph*, January 1, 2013, accessed September 20, 2017, <http://www.telegraph.co.uk/finance/yourbusiness/9772950/Theyre-300-years-old-and-still-in-business.html>.

⁹⁶ Ibid., 32-34.

when will I return a colleague's call, and so on. While these are not predictions of what we will or will not do, they are according to Ingvar an internal process within the brain to sort out the myriad of information our body receives (sees, hears, feels, tastes, and smells). Our perceptions are not just about collecting or rejecting bits and pieces of information, but rather an active process to develop and refine paths and courses of action. In other words, we need to take time to "visit our future."⁹⁷

A wide variety of tools are available today to think about the future—BCG Growth-Share Matrix, SWOT Analysis, Porter's Five Force Analysis, Value Chain Analysis, and Brainstorming. I will discuss what I believe is the most relevant strategic planning tool for thinking about the Arctic—scenario planning. Before that, I will discuss models, simulations, and games to provide context before moving to scenario planning.⁹⁸

2. Models – Simulations – Games

Models, simulations, and games are tools used to forecast outcomes. Scenarios used for these three tools "do not have an intrinsic worth of their own," they merely set the stage or parameters for the model, simulation, or game to run.⁹⁹ What is the difference between models, simulations, and games?

A model is a "physical, mathematical, or otherwise logical representation of a system, entity, phenomenon, or process."¹⁰⁰ Models cover multiple disciplines: economic—forecasting our Gross Domestic Product; aerodynamics—effects of icing on an airplane's wing; meteorological—where the next hurricane might make landfall. Sometimes these forecasts are successful and at other times miss the mark or leave the observer wondering if the models are looking at the same data. Consider the various models and tracks from Hurricane Matthew, which struck the east coast of the U.S. in

⁹⁷ Ibid., 34-37.

⁹⁸ Jay Ogilvy, "Scenario Planning and Strategic Forecasting," *Forbes*, January 8, 2015, accessed September 13, 2017, <https://www.forbes.com/sites/stratfor/2015/01/08/scenario-planning-and-strategic-forecasting/#9ade5a3411a3>.

⁹⁹ Ibid., 2.

¹⁰⁰ United States Army, Army Modeling and Simulation Office, *Modeling and Simulation Glossary*, accessed August 13, 2017, <http://www.ms.army.mil/library2/glossary.html#m>.

2016, and its actual track depicted in the Figures 7 and 8. George Box characterized models as useful, even if they are wrong at times.¹⁰¹

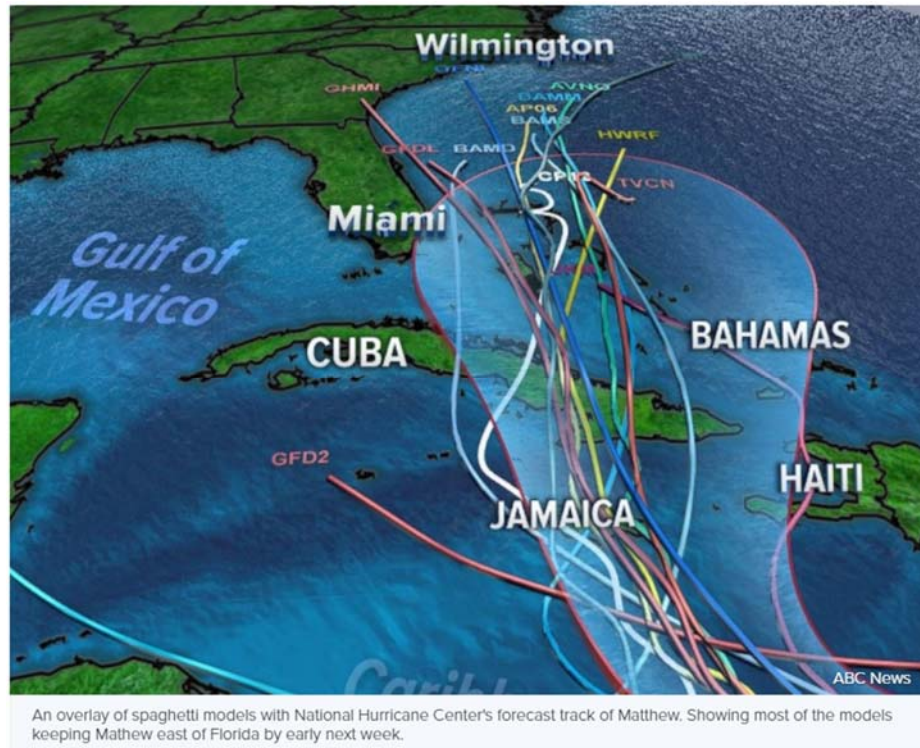


Figure 7. Models depicting path of Hurricane Matthew¹⁰²

¹⁰¹ George E. P. Box, "Science and Statistics," *Journal of the American Statistical Association*, 71: 791–799, doi:10.1080/01621459.1976.10480949

¹⁰² David Caplan, "Matthew Weakens Slightly to a Category 4 Hurricane With Jamaica in Its Path," *ABC News*, accessed August 13, 2017, <http://abcnews.go.com/US/hurricane-matthew-gaining-strength-caribbean/story?id=42474108>.

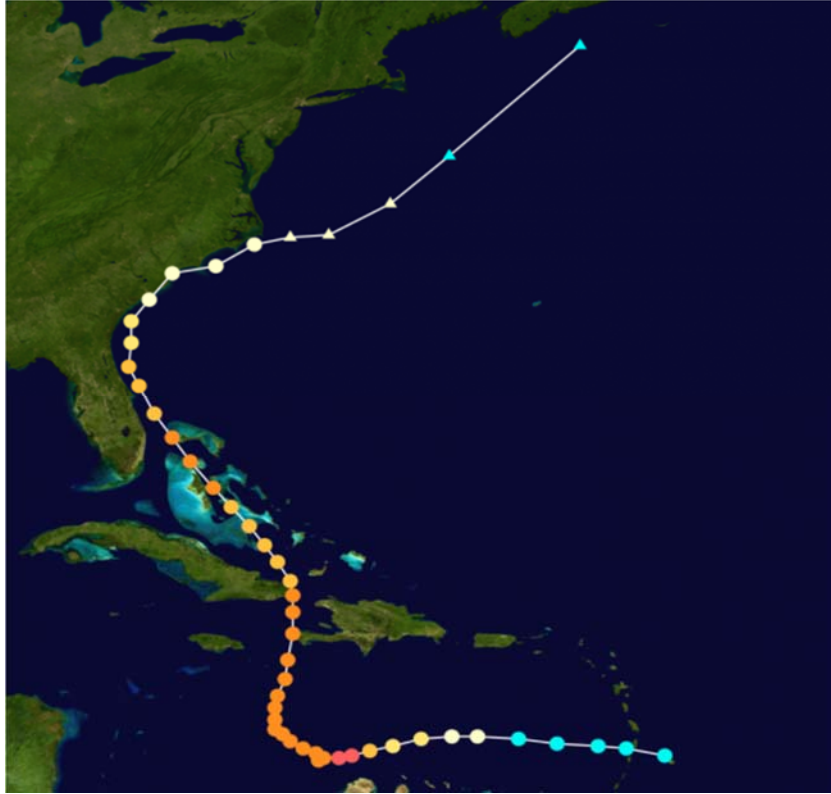


Figure 8. Actual track of Hurricane Matthew¹⁰³

Simulations are “a method for implementing a model over time.”¹⁰⁴ These include computer applications such as SimCity, Farming Simulator, ATC-Sim, to weather updates using Future Cast but also as a means to put learned concepts into practice. For example, in a classroom setting a firefighter trainee would learn how to fight a fire and what to do when things go wrong, but this classroom education becomes abundantly clear as the trainee enters a controlled fire in a burn house.

Lastly, a game is “a physical or mental competition in which the participants, called players, seek to achieve some objective within a given set of rules.”¹⁰⁵ Physical

¹⁰³ National Weather Service, “Hurricane Matthew – October 8-9, 2016,” accessed August 13, 2017, <http://www.weather.gov/mhx/MatthewSummary>.

¹⁰⁴ United States Army Modeling and Simulation Office, *Model and Simulation Glossary*, accessed August 28, 2017, <http://www.ms.army.mil/library2/glossary.html#s>.

¹⁰⁵ Under Secretary of Defense for Acquisition Technology, *DoD Modeling and Simulation (M&S) Glossary*, DOD Directive 5000.59-M, Washington, D.C.: Under Secretary of Defense for Acquisition Technology, 1998.

games include various sporting events (baseball, basketball, football, etc.) each with their own set of rules, fields of play to mental games using a deck of cards—Bridge, Pinochle; board games—Monopoly, Risk, Clue; or using one’s Smart Phone, tablet or other electronic device. Games could also entail a freewheeling environment where participants are given a problem or topic to discuss resulting in discovery learning.¹⁰⁶

B. SCENARIOS

1. Background

Broadly speaking, scenarios have been around for as long as man existed and pondered what the future might hold—consider Plato’s *Republic* or George Orwell’s *1984*.¹⁰⁷ However, it was not until the late 1960s and early 1970s when Royal Dutch/Shell developed a new method used today by many companies and governments—“scenario planning” or “decision scenarios” rather than using the typical forecast models and techniques commonly used.¹⁰⁸ Consider the examples in Tables 1 and 2.

¹⁰⁶ James John Tritten, Creative use of scenarios. Monterey, California. Naval Postgraduate School, April 1987, accessed August 12, 2017, <http://hdl.handle.net/10945/28895>, 3-4.

¹⁰⁷ Ron Bradfield, George Wright, George Burt, George Cairns, and Kees Van Der Heijden, “The origins and evolution of scenario techniques in long range business planning,” *Futures*, 37 (2005): 797, doi:10.1016/j.futures.2005.01.003.

¹⁰⁸ Pierre Wack, “Scenarios: Uncharted Waters Ahead,” *Harvard Business Review*, September 1, 1985, 63, no. 5, accessed August 12, 2017, <http://search.proquest.com/docview/227834288/>, 73.

Table 1. Contrast between forecasts and reality–The oil supply¹⁰⁹

Date on Which Forecast Was Made	The Forecast	The Reality
1885	Little or no chance of oil in California– <i>USGS</i>	8 billion barrels produced there since then
1891	Little or no chance of oil in Kansas or Texas– <i>USGS</i>	14 billion barrels produced there since then
1908	Maximum future supply: 22.5 billion barrels– <i>USGS Officials</i>	35 billion barrels produced since then
1920	Peak domestic production (then 0.45 billion barrels per year) almost reached– <i>Director, USGS</i>	1948 production was more than four times 1920 level
1947	Sufficient oil cannot be in the United States to satisfy domestic demand– <i>Chief Petroleum Division, State Department</i>	3 billion barrels found the next year, largest volume in history, and twice the annual consumption
1949	End of U.S. oil supply almost in sight– <i>Secretary of the Interior</i>	It wasn't and still isn't!

¹⁰⁹ Source: Brian Marsh, “Using Scenarios to Identify, Analyze, and Manage Uncertainty,” in *Learning from the Future*, ed. Liam Fahey and Robert M. Randall, (New York, NY: John Wiley & Sons, Inc: 1998), 41.

Table 2. Average weekly hours¹¹⁰

Average Weekly Hours for the Manufacturing Sector	1965	1975	1985	2000
Predicted in 1965	41.1	41.5	38.9	32.0
Actual	41.4	39.4	40.5	41.2

Pierre Wack observed while forecasting tools were useful during stable times and conditions in the 1950s and 60s, during periods of uncertainty these missed the mark more often than not due in large part to too many moving parts and more importantly no “single projection” could predict the future anymore. He concluded it was better to accept ambiguity, try to make sense of it, and incorporate it into one’s reasoning and decision making process.¹¹¹

DOD defines scenarios as:

- a. Description of an exercise. It is part of the session database that configures the units and platforms and places them in specific locations with specific missions;
- b. An initial set of conditions and time line of significant events imposed on trainees or systems to achieve exercise objectives.¹¹²

Herman Kahn, considered the father of scenario planning, defines a scenario as “a set of hypothetical events set in a future constructed to clarify a possible chain of casual events as well as their decision points.”¹¹³ In Table 3, Bill Ralston and Ian Wilson provide a list of what scenarios are and are not.

¹¹⁰ Predicted row adapted from: Herman Kahn and Anthony J. Weiner, *The Year 2000: A Framework for Speculation on the Next Thirty-Three Years* (New York, NY: The Macmillan, 1967), 175 and Actual Row from: Federal Reserve Bank of St. Louis, Economic Research, assessed September 17, 2017, <https://fred.stlouisfed.org/series/AWHMAN#0>.

¹¹¹ Ibid.

¹¹² United States Army Modeling and Simulation Office, accessed August 28, 2017, <http://www.ms.army.mil/library2/glossary.html#s>.

¹¹³ Herman and Weiner, *The Year 2000s*, 6.

Table 3. Scenarios: What they are and are not¹¹⁴

Scenarios are not...	They are...
Predictions	Descriptions of alternate plausible futures
Variations around a midpoint base case	Significantly, often structurally, different views of the future
“Snapshots” of endpoint (e.g., the market in 2010)	“Movies” of the evolving dynamics of the future
Generalized views of feared or desired futures	Specific “decision-focused” views of the future
Products of outside futurists	Results of management insight and perceptions

For this thesis, I will use the following definition for scenarios: “a tool for ordering one’s perception about alternative future environments, in which one’s decisions might be played out.”¹¹⁵

2. Development of Scenarios

Over the years, three schools of scenario planning developed: intuitive, probabilistic modified trends (PMT) and La prospective.¹¹⁶

The intuitive method, proposed by Kahn and used by Wack at Royal Dutch/Shell is the dominant method used in the U.S. and abroad.¹¹⁷ This method relies on a skilled scenario team with knowledge of the problem and the ability to communicate the

¹¹⁴ Bill Ralston and Ian Wilson, *The Scenario-Planning Handbook: A Practitioner’s Guide to Developing and Using Scenarios to Direct Strategy in Today’s Uncertain Times*, (Crawfordsville, IN: RR Donnelly, 2006), 16.

¹¹⁵ Peter Schwartz, *The Art of the Long View – Planning for the Future in an Uncertain World*, (New York: Currency, 1996), 4.

¹¹⁶ Muhammad, et al, “A review of scenario planning,” 26.

¹¹⁷ Ibid.

interaction of several factors (political, social, environment, technology and others) to managers in a way for them to re-perceive “their decisions about the future.”¹¹⁸

PMT combines Trend-Impact Analysis (TIA) and Cross-Impact Analysis (CIA) to produce a “range of alternative futures” instead of a single outcome. By combining TIA and CIA, PMT incorporates historical data and a list of unseen future events and then using expert judgment determines the probability of this event occurring over time.¹¹⁹

Finally, in the late 1960s and early 1970s, France’s Office for Regional Planning and Development, developed the La prospective method. Used principally for public sector planning, this method sees the future not as a predetermined outcome but rather provides policy makers with future visions to serve as a guide for their future actions. Table 4 provides an overview of the three schools and their key features.

¹¹⁸ Muhammad Agar, Tugrul U. Daim and Anotnie Jetter, “A review of scenario planning,” 27 and Peter Schwartz, *The Art of the Long View: Paths To Strategic Insight For Yourself And Your Company*, 9.

¹¹⁹ Bradfield, et al, “The origins and evolution of scenario techniques in long range business planning,” 800-801.

Table 4. Key features of the three scenario schools.¹³¹

Characteristics	Intuitive	PMT	La prospective
Purpose	Multiple, from a one-time activity to make sense of situations and developing strategy	A one-time activity to make extrapolative prediction and policy evaluation	Usually a one-time activity associated with developing more effective policy and strategic decisions
Perspective	“Descriptive or normative”	“Descriptive”	Generally descriptive
Time frame	“Varies: 3–20 years”	“Varies: 3–20 years”	“Varies: 3–20 years”
Methodology	Process oriented approach, essentially subjective and qualitative	Outcome oriented approach, very directed, objective, quantitative and analytical using computer based extrapolative simulation models	Outcome oriented approach, which is directed, objective, quantitative and analytical relying on complex computer based analysis and modeling
Starting point	“A particular management decision, issue or general concern”	“Decisions/issues for which detailed and reliable time data exists”	“A specific important phenomenon of concern”
Identifying key driving forces	Intuition, research, brainstorming techniques, and expert opinion	Curve fitting to past time series data to identify trends and use expert judgment to create a database of unprecedented events	Interviews with stakeholders and comprehensive structural analysis using sophisticated computer tools
Output of scenario exercise	Qualitative set of equally plausible scenarios in narrative form with strategic options, implications, and early warning signals	Quantitative baseline case plus upper and lower quartiles adjusted time series forecast	Multiple quantitative and qualitative scenarios supported by comprehensive analysis, implications and possible actions
Use of	“No, all scenarios are equally	“Yes, conditional probability of	“Yes, probability of the evolution

¹³¹ Adapted from: Bradfield, et al, “The origins and evolution of scenario techniques in long range business planning, 807-808.

Characteristics	Intuitive	PMT	La prospective
probabilities	probable”	occurrence of unprecedented and disruptive future events”	of variables under assumption set of actors’ behavior”
Number of scenarios	“Generally 2–4”	“Usually 3–6 depends on the number of simulations”	“Multiple”
Evaluation criteria	“Coherence, comprehensiveness, internal consistency, novelty, supported by rigorous structural analysis and logics”	“Plausible and verifiable in retrospect”	“Coherence, comprehensiveness, internal consistency tested by rigorous analysis; plausible and verifiable in retrospect”

3. Steps to Develop a Scenario

Business models, strategic plans, long range planning and the like consider a variety of goals: where do we want to be in 3, 5, 10 or more years from now, how do I maintain my current rate of growth, how do we expand our business in to new markets and so forth. These use a variety of models—Value Networks, Strategy Diamond, Staehler’s model in the Digital Economy, Business Model Canvas, four-box and others.¹³² Scenario planning takes a different approach and “shifts the question from whether something will happen to what we would do if it did happen?” The planning cycle using scenarios requires a different approach.¹³³

A variety of scenario development models is available. Figure 9 depicts SRI International's scenario development model and forms the basis for subsequent scenario development models.¹³⁴

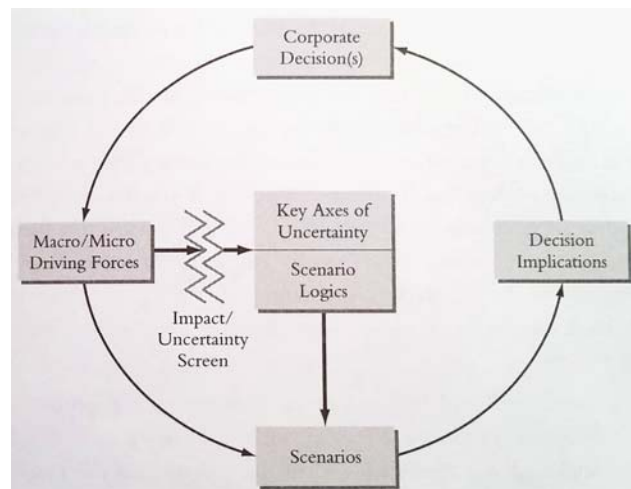


Figure 9. SRI scenario development model¹³⁵

¹³² Tim Kastelle, “Eight Models of Business Models, & Why They’re Important,” accessed September 14, 2017, <http://timkastelle.org/blog/2012/01/eight-models-of-business-models-why-theyre-important/>.

¹³³ Quote attributed to Aries de Geus, Shell Planning Group, from presentation by Harbottle Consulting, accessed September 14, 2017, <http://www.slideserve.com/leal/effective-planning-risk-management-in-an-uncertain-business-environment>.

¹³⁴ Peter Schwartz and James A. Ogilivy, "Plotting Your Scenarios," in *Learning from the Future*, ed. Liam Fahey and Robert M. Randall, (New York, NY: John Wiley & Sons, Inc: 1998), 60.

Drawing on two decades of work in scenario planning, shown in Figure 10 is the eight-step process developed by Peter Schwartz.¹³⁶ I used this process to develop the key factors, scenarios, and early indicators for the four scenarios used in Chapter V.

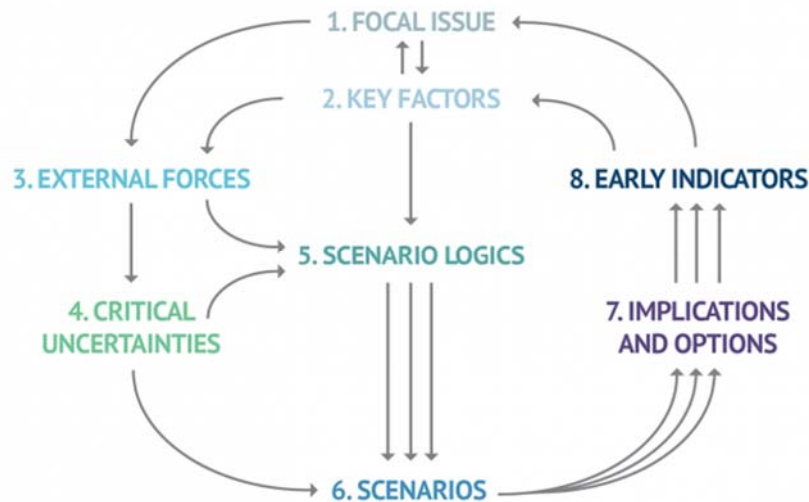


Figure 10. Eight-step scenario planning process¹³⁷

1. Identify focal issue. This is done by building “from the outside in” versus the “inside out.” For example, what cars or products should we have if the price of gas doubles in ten years, making our 10 mpg line of cars unaffordable?
2. Key factors in local the environment. Identify the stable or unchanged forces in any of the scenarios over time.¹³⁸
3. External forces. This step tries to answer two important questions. What forces will drive those factors listed in step two and secondly, if only I had known then what happened today, e.g., knowing today when a breakthrough in affordable battery technology might happen, which could result in millions of people getting off the grid? An influence or driving

¹³⁵ Ralston and Wilson, *The Scenario-Planning Handbook*, 23.

¹³⁶ Schwartz, *The Art of the Long View*, 241-247.

¹³⁷ Ogilvy, “Scenario Planning and Strategic Forecasting.”

¹³⁸ Peter Schwartz et al, “Basic Approaches to Constructing Scenario,” in *Learning from the Future*, ed. Liam Fahey and Robert M. Randall, (New York, NY: John Wiley & Sons, Inc: 1998), 55-186; Ralston and Wilson, *The Scenario-Planning Handbook*, 25, 39-177; and Kees Van Der Heijden, *Scenarios – The Art of Strategic Conversation*, (Chichester, West Sussex, UK: John Wiley & Sons, Ltd: 2005), 219-272.

force analysis diagram can visually depict trends over time and depict what is driving what. Figure 11 depicts an influence diagram.

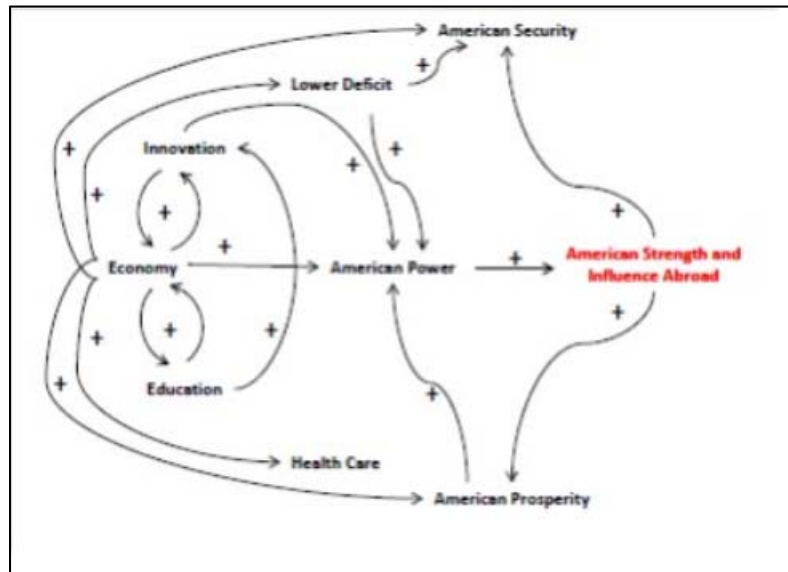


Figure 11. National security strategy influence diagram¹³⁹

4. Critical uncertainties. The goal of this step is to identify two or three key factors or trends that are both important and uncertain.
5. Scenario logics. While the previous step may produce several factors or trends of importance and uncertainty, the goal of this step is to reduce this number to as few as possible, “whose differences make a difference to the decision maker” and then construct a scenario.¹⁴⁰ Construction of scenarios typically follows one of three methods: inductive, deductive and incremental.¹⁴¹ I will discuss each method later.
6. Scenarios. This step ensures factors and trends identified in steps two and three are contained in each scenario.
7. Implications and options. By this point, you should have well defined scenario(s). Each scenario is rehearsed with individuals role-playing, looking for the scenario’s strengthen and weakness. Ultimately, does the scenario get to the focal issue identified in step one?

¹³⁹ Dan McCauley, “U.S.-Iran Rapprochement,” *Small Wars Journal*, January 19, 2014, accessed November 13, 2017, <http://smallwarsjournal.com/jrnl/art/us-iran-rapprochement>.

¹⁴⁰ Schwartz, *The Art of the Long View*, 243.

¹⁴¹ Van Der Heijden, *Scenarios – The Art of Strategic Conversation*, 236-254.

8. Early Indicators. Scenarios allow decision makers to consider an “alternative future environment.”¹⁴² Establishing indicators or signposts provides an early warning that what might happen is about to happen. In the business world, these indicators or signposts would give a company a competitive advantage over their competition. For homeland security, this may result in gaining a strategic advantage over an adversary or preventing an adversary from gaining a strategic advantage over you.

As mentioned above in step five, three methods are used to structure scenarios: inductive, deductive and incremental.¹⁴³ In the inductive method, the scenario begins from the specific to the general and can involve two approaches.¹⁴⁴ In the first approach, a series of storylines are built around a significant future event that may occur—if x happens how does that affect our bottom line? This approach is similar to putting together a jigsaw puzzle. The puzzle pieces represent the various events and decisions needed to achieve the future event. One way is to link a series of events or decisions into a logical order, not unlike putting together the frame or edge of the jigsaw puzzle. The second is to build natural grouping of events or decisions that at first do not appear connected to others, but with one key piece, these disparate groups come together. The second approach, which differs slightly from the first, begins with a decision most likely to occur and then maps the factors or drivers leading to this decision/outcome. Typically, this is done through a series of cause-and-effect snippets or vignettes. While this method has great potential, it comes with several cautions. It can cause planners to create good scenarios—answers what the boss wants to hear and bad scenarios—challenges an organization’s mission resulting in managers digging in their heels. The root cause of the good versus bad approach is seeing the world as black-and-white, good or bad, more of the same and views change as something negative rather than a challenge and opportunity.¹⁴⁵

¹⁴² Schwartz, *The Art of the Long View*, 4.

¹⁴³ Van Der Heijden, *Scenarios – The Art of Strategic Conversation*, 236.

¹⁴⁴ Ibid., 236-237 and Schwartz and Ogilvy, “Plotting Your Scenarios,” 62-64.

¹⁴⁵ Van Der Heijden, *Scenarios – The Art of Strategic Conversation*, 128-130.

The deductive method is better suited for organizations where open and honest discussions are more difficult.¹⁴⁶ This method begins from the general to the specific or particular and achieves this by grouping the data into a few outcomes or end states. This process is akin to grouping/organizing a white-board with trends, key-words, or notes written on Post-its. From here, a scenario is constructed based on events, trends, or structure.¹⁴⁷ Figure 12 shows a typical event tree based on a logical flow of events and decisions.

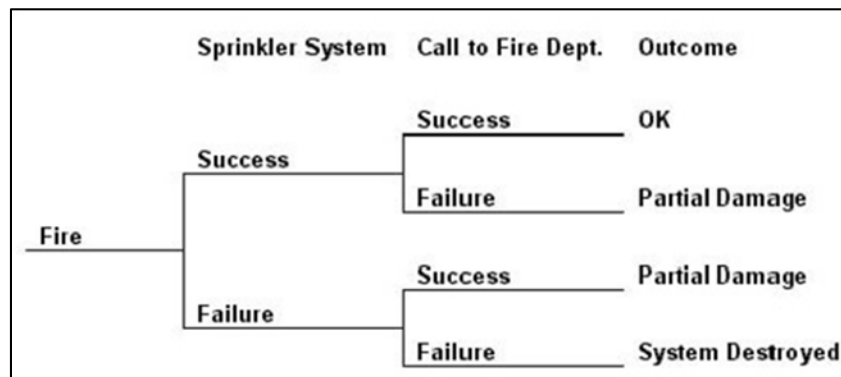


Figure 12. Simple event tree¹⁴⁸

The second approach uses key trends when identifying key events is difficult. A current trend today is reducing one's carbon footprint—a practice a business should adopt because it is trending, the right thing to do, good for business or a combination of these.

Finally, the third and approach I will use in my thesis, identifies two or three key forces, and creates unique scenarios based on the outcomes of the key forces; typically depicted as a 2x2 matrix, where one axis represents the highest uncertain factor and the other axis, the factor with the greatest potential impact.¹⁴⁹ This method affords several advantages. It provides an academic approach to problems, avoids reducing the problem

¹⁴⁶ Schwartz and Ogilvy, "Plotting Your Scenarios," 64.

¹⁴⁷ Van Der Heijden, *Scenarios – The Art of Strategic Conversation*, 243.

¹⁴⁸ Alma Maria Jennifer Gutierrez, "Fault Tree and Event Tree in Risk Analysis," accessed September 22, 2017, <https://www.slideshare.net/yorkypab/fault-tree-and-event-tree-in-risk-analysis>.

¹⁴⁹ Rafael Ramirez and Angela Wilkinson, "Rethinking the 2x2 scenario method: Grid or frames?," *Technological Forecasting & Social Change* 86 (2014): 254-255, doi: 10.1016/j.techfore.2013.10.020.

to a single choice, provides a list of best-case/worst-case options, explains an otherwise complicated problem with easy-to-understand outlooks and alternatives not previously considered, is easy to communicate to decision makers, and generates extreme solutions to opposing forces.¹⁵⁰ Downsides to the 2x2 matrix include: the four corners/scenarios may not contain all the possible outcomes, and planners may settle on easy forces to ease anxiety or avoid studying the factors at length.¹⁵¹ The reader needs only to reread the examples at the beginning of this chapter as a reminder how an unrealistic future or lack of imagination became a reality.

Until recently, 2x2 matrices fell into four categories: backbone, foundation, scaffold and showcase. As a physical backbone support a body, the axes in a scenario matrix are the backbone supporting the four scenarios. Foundation scenarios use a common framework or foundation to develop scenarios. A scaffold is useful when erecting a building, but eventually it gets in the way and is taken down, similarly, the scaffold scenario gets the ball rolling, then is abandoned to develop an array of scenarios. Finally, the showcase is analogous to putting Post-Its on a board organized around different themes, as opposed to driving forces used for backbones.¹⁵² In their research, Ramirez and Wilkinson, found a fifth category based on a methodological choice; do the axes represent a continuum (more or less grid) or a set of incommensurate possibilities (either/or frames)?¹⁵³ Table 5 provides an overview of these two methodologies.

¹⁵⁰ Ramirez and Wilkinson, “Rethinking the 2x2 scenario method: Grid or frames?,” 258.

¹⁵¹ Van Der Heijden, *Scenarios – The Art of Strategic Conversation*, 250-251.

¹⁵² Marjolein B.A. van Asselt, et al, *Foresight in Action – Developing Policy-Oriented Scenarios* (New York: Earthscan, 2010), 61-75.

¹⁵³ Ramirez and Wilkinson, “Rethinking the 2x2 scenario method: Grid or frames?,” 258-259.

Table 5. Comparison of two ways of using the 2x2 matrix in deductive scenario planning¹⁵⁴

2x2 matrix approach	Futures that can come about	Mutually incompatible or compatible	Position of present or past	Communicating the scenarios to those not producing them	Scenario result	Temporality of the scenario
‘Either/or’ frames	One of four	Mutually incompatible	Present located at the center of matrix, not in any of the scenario quadrants	Clear and memorable framework that provides a structure for rich storytelling about the interplay of factors and actors in each quadrant	4 ‘extreme’ incompatible but plausible futures that help clarify branching points and enable comparative analysis	From now to one of the four possible contexts
‘Both-and’ grids	Several at once	Possible compatible, possibly sequential	Present and past in any location on the matrix	More nuanced storytelling and contrast; extra attention and effort must be invested in comparison, communication and engagement	Small set (≥ 2) of plausible alternative contexts representing past, present and future situations	From past to present to several (≥ 2) possible future contexts

¹⁵⁴ Ibid., 262.

In situations where scenario planning is new, or an organization is resistant to change, the incremental method offers a way to introduce scenario planning.¹⁵⁵ The incremental method begins with an organization's official future, where they see themselves in whatever timeline they created. Then it looks for obstacles that will either prevent the organization from ever achieving their future or not in their estimated timeline. Two methods are used to create these scenario–trend analysis and actor logic.¹⁵⁶ In the former, planners analyze where the official future is achievable based on current trends, forecasts, and conditions. While the latter examines the key actors needed to achieve the official future and is the logic used to develop the official future consistent with their thinking. In most cases, the planners will identify hurdles the official future will need to overcome in order to be successful. The objective of this method is to change the organization's thought from thinking inside the box to the outside-in approaches of the either the inductive or deductive methods.

C. CONCLUSION

One can think about the future in a variety of ways. Daydreaming is a fanciful approach, while models, simulations, and games provide a systematic and scientific method for looking at the future. One could even approach the future through a problem-solving approach: define the problem, gather evidence, propose alternatives, select criteria, project outcomes, weigh pros/cons, decide, and implement. All of these methods approach the future from the inside out. Scenarios on the other hand take an outside-in look at the future by exploring the problem space versus trying to predict it and embracing the uncertainty of the future rather than dismissing it. While many predictions and forecasts abound for the Arctic, there are still many unknowns.

Before presenting the four scenarios, I will examine the strategic patience and persistence strategy, and more broadly the absence of a strategy—is it a real strategy or an oversight by policy makers not ready to tackle a wicked problem.

¹⁵⁵ Van Der Heijden, *Scenarios – The Art of Strategic Conversation*, 251.

¹⁵⁶ *Ibid.*, 252.

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IV. STRATEGIC PATIENCE AND PERSISTENCE STRATEGY

Strategies come in all shapes and sizes and across many disciplines. Military strategies include air superiority, blitzkrieg, flanking maneuvers, and others. In business, typical strategies involve firms dominating their industry, monopolizing critical resources, or out-innovating their competitors. A good strategy recognizes the challenges, provides a way ahead, and typically has three elements or “kernel”: a diagnosis, guiding policy, and coherent action.¹⁵⁷ In this chapter, I will examine a couple avoidance strategies before turning to the strategic patience and persistence strategy introduced by then President Obama in 2015.

A. KEEPING YOUR POWDER DRY

In 1642 at the Battle of Edgehill, Oliver Cromwell reportedly told his troops, “Put your trust in God, my boys, but mind to keep your powder dry.”¹⁵⁸ In 2002, then Secretary of Defense Donald Rumsfeld during a news conference said “As we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns—the ones we don’t know we don’t know.”¹⁵⁹ Lastly, Carl von Clausewitz in his work *On War* said, “War is the realm of uncertainty; three quarters of the factors on which action in war is based are wrapped in a fog of greater or lesser uncertainty,” from which comes the saying—the fog of war.¹⁶⁰ These highlight the impossibility of knowing everything before making a decision, whereby one strategy is to preserve one’s options, by waiting and seeing. Is the strategic patience and persistence strategy keeping one’s powder dry, to come out guns blazing, when, and if needed?

¹⁵⁷ Richard P. Rumelt, *Good Strategy Bad Strategy: the Difference and Why It Matters* (Crown Business, 2011), loc 188 and 241 of 5141, Kindle.

¹⁵⁸ William Safire, “Keep Your Powder Dry,” *New York Times*, February 23, 1997, accessed November 14, 2017, <http://www.nytimes.com/1997/02/23/magazine/keeping-your-powder-dry.html>.

¹⁵⁹ Donald Rumsfeld, “Donald Rumsfeld Unknown Unknowns!,” YouTube video, 0:34, posted by Ali, August 7, 2009, <https://www.youtube.com/watch?v=GiPe1OiKQuk>.

¹⁶⁰ Carl von Clausewitz, *On War* (Princeton, NJ: Princeton University Press, 2008), 101.

When analyzing strategies, researchers and strategists may try to fit the strategy into a known typology or create a new one when an outlier does not fit the pattern of known strategies. However, the outlier may represent absence as a strategy.¹⁶¹ I will look at several theories on strategy absence and decision avoidance and apply these to the strategic patience and persistence strategy.

1. Theory of Strategy Absence

The theory of Strategy Absence begins by rejecting the assumption all organizations have a strategy, whether explicit or implicit, to include models and theories such as the garbage can model, inertia theory, and others.¹⁶² What follows are three approaches to understand strategy absence.

a. Absence as failure

On the surface, the absence of a strategy may indicate leadership failure to develop a strategy and erroneously cause one to look for a reason for this failure.¹⁶³ Research conducted by Miles and Snow identified four organizational types each with their own unique strategy: Defender, Reactor, Analyzer, and Prospector.¹⁶⁴ Reactors, despite perceiving change, are unable to respond to it and lack a dependable strategy, eventually these organizations move to one of other three typologies.¹⁶⁵ This suggests the absence of a strategy. However, the presence or absence of a strategy does not imply a successful or failed strategy, rather only that one exists or does not. An established strategy executed poorly and focused on the wrong goals in some cases is worse than no strategy at all.

¹⁶¹ Andrew Inkpen, "The Seeking of Strategy Where It Is Not: Towards a Theory of Strategy Absence," *Strategic Management Journal*, Vol 16 (1995), 313-314.

¹⁶² Ibid., 313.

¹⁶³ Ibid.

¹⁶⁴ Raymond E. Miles and Charles C. Snow, *Organizational Strategy, Structure and Process* (Stanford, CA: Stanford University Press, 2003), 915-940.

¹⁶⁵ Ibid.

b. Absence as transition

A failing strategy may cause an organization to reevaluate its strategy and for a time abandon its failed strategy in search of a new one. This was the case for American auto manufactures during the automakers turbulent years in the late 1980s and early 1990s and most recently when GM announced it would build 20 new electric car models by 2023.¹⁶⁶ One might argue transitions only happen for well-established organizations. Others see the tech boom of early 1980s when personal computers began to enter the market place as a time of rapid transition for developers, manufactures, programmers and others trying to gauge and respond to consumer demand for this budding technology.¹⁶⁷

c. Absence as virtue

In this approach, management makes a deliberate decision not to have a strategy either for constructive ambiguity or symbolic reasons. In the first case, ambiguity allows an organization to remain flexible rather than held hostage by its own strategy. In the Miles and Snow typology, this is the Prospector strategy. The Prospector's product or innovation allows them to trade efficiency in order to respond to unforeseen changes. Not tied to a strategy allows an organization to experiment and in the process the organization undergoes discovery learning. This was the case for Honda in the early 1960s when they entered the motorcycle market, which Harley-Davidson dominated at the time. Honda had no strategy other than to sell motorcycles; they were free to innovate, and only afterwards did they develop a strategy.¹⁶⁸ This model is common in tech start-up companies today. Others describe the typology as tents versus palaces—responsive/flexible versus unresponsive/entrenched.

Strategy fulfills a symbolic and material role. Leaders see it as providing direction to the organization; subordinates as an ideal to rally around. Consider the Military Service academies' mottos: Duty, Honor, Country; From Knowledge, Seapower; and

¹⁶⁶ Robert Baldwin, "GM will have 20 electric car models on the road by 2023," *Engadget*, October 2, 2017, accessed November 14, 2017, <https://www.engadget.com/2017/10/02/gm-20-electric-car-models-by-2023/>.

¹⁶⁷ Inkpen, "The Seeking of Strategy Where It Is Not: Towards a Theory of Strategy Absence," 317.

¹⁶⁸ *Ibid.*, 318.

Integrity First–Service Before Self–Excellence in All We Do. From a materialistic viewpoint, leaders may view strategies as not a good use of their company’s resources and “unnecessary as a competitive weapon.”¹⁶⁹

2. Decision Avoidance

Simply put decision avoidance is the “tendency to avoid making a choice by postponing it or by seeking an easy way out that involves no action or no change.”¹⁷⁰ Researchers identified four phenomena for this: status quo bias, omission bias, choice deferral, and inaction inertia.¹⁷¹

Status quo bias or cognitive myopia is the concept whereby an individual chooses an immediate smaller gain or benefit over a larger gain/benefit happening in the future.¹⁷² Said differently, the individual or decision maker has an inflated view of the current situation and sees no need to change. Similar to status quo bias is omission bias, whereby the preference is for “options that do not require action.”¹⁷³

Three theories exist why individuals would prefer the status quo or avoid action when doing so would be beneficial to them. First is regret—they changed before, only to discover that the grass wasn’t greener on the other side. Loss or risk aversion—the potential loss is greater than the potential gain. Lastly, a lack of imagination— incremental change is preferred to what appears to them as a revolutionary or disruptive change.

Choice deferral is when “an individual chooses not to choose for the time being” in order to research options, conduct course of action analysis, and then either decides not to pursue any course of action or defers the decision to someone else.¹⁷⁴ There are three

¹⁶⁹ Ibid., 319.

¹⁷⁰ Christopher J. Anderson, “The Psychology of Doing Nothing: Forms of Decision Avoidance Result From Reason and Emotion,” *Psychology Bulletin* 129, no. 1, (2003): 139, doi:10.1037/033-2909.129.1.139.

¹⁷¹ Ibid., 143-146.

¹⁷² Elke U. Weber, “Breaking cognitive barriers to a sustainable future,” *Psychology Today*, September 29, 2016, accessed November 14, 2017, <https://cdn.psychologytoday.com/blog/after-service/201609/how-powerful-is-status-quo-bias>.

¹⁷³ Ibid., 143.

¹⁷⁴ Ibid., 144.

reasons for choice deferral. Conflict—resulting in longer searches and more options. Additionally, when given too many options, justifications tend to get limited making the choice more difficult. Value maximization—how does one value or rate the options given their differences. Finally, preference uncertainty—not knowing what your future self or organization will like or benefit from because your future self or organization has yet to make up its mind.¹⁷⁵

Lastly, inaction inertia is the “tendency of a person to omit action when he or she already passed up a similar, more attractive opportunity to act.”¹⁷⁶ Root cause of this is counterfactual thinking—if only I had bought Apple stock, I could have retired by now, along with regret and an over or under perception of costs.

3. Real Options

Real Options enable decision makers to manage risks, rather than reacting to them, by either delaying a decision to invest/divest until conditions are more favorable.¹⁷⁷ Drawing from Richard Danzig’s *Driving in the Dark*, here are a couple real options the DOD could undertake. Given the unpredictability of the future in general and the Arctic specifically, the DOD should “prioritize equipment that is most adaptable” and “accelerate decision tempo and delay some decisions.”¹⁷⁸ The first axiom is seen in planes like the B-52H and RC-135 which entered the U.S. Air Force inventory in the 1960s and continue to fly today, while specialized aircraft like the A-6 (1971-1991), F-111 (1967-1998), C-141 (1965-2006) and MH-53 (1981-2008) have come and gone.¹⁷⁹ The latter pushes critical decisions to the last possible moment in the decision cycle rather than trying to solve them in earlier phases, which demands a new decision

¹⁷⁵ Ibid., 144-145.

¹⁷⁶ Ibid., 146.

¹⁷⁷ Alida Zweidler, Carol Wedge and Bruce Metz, “The ‘Real Options’ Approach to Capital Decisions: Planning for Change,” *What Work ~ An Essay from the PKAL Community*, Vol. IV, 1; Richard de Neufville, “Real Options: Dealing With Uncertainty In Systems Planning and Design,” *Integrated Assessment* 2003, Vol. 4, No.1, 27.

¹⁷⁸ Richard Danzig, *Driving in the Dark – Ten Propositions About Prediction and National Security* (Washington, DC: Center for New American Security, 2011), 19-21 and 23-25.

¹⁷⁹ Air Force Fact Sheet, accessed December 2, 2017, <http://www.af.mil/About-Us/Fact-Sheets/>.

framework for the DOD, one following the private sector model of days/weeks/months versus months and years currently done within the DOD.

4. Conclusion

Non-events, by definition, go unnoticed and attempting to make connections or measurements between a non-event and a particular outcome are difficult. Was the success of the organization due in some part or all because they had no strategy, or the product was so good, it sold itself, or because of strong leadership? Strategy absence does not equate to a rudderless ship or imply a lack of focus or capabilities but rather allows an organization to consider all factors and not just those that meet their immediate strategic plans or objectives. While there are several reasons why decision makers may avoid making a decision, none of these is insurmountable. Indeed, delay may be a better option or the least–worst option. Lastly, real options provide decision makers a means to exploit uncertainty to their advantage. The next section looks at the strategic patience and persistence strategy applying the theories from this section to understand this strategy.

B. A STRATEGY IN SEARCH OF MEANING?

In the forward to the 2015 *National Security Strategy*, then President Obama wrote:

As powerful as we are and will remain, our resources and influence are not infinite. And in a complex world, many of the security problems we face do not lend themselves to quick and easy fixes. The United States will always defend our interests and uphold our commitments to allies and partners. But, we have to make hard choices among many competing priorities, and we must always resist the over-reach that comes when we make decisions based upon fear. Moreover, we must recognize that a smart national security strategy does not rely solely on military power. ... The challenges we face require *strategic patience and persistence*. They require us to take our responsibilities seriously and make the smart investments in the foundations of our national power. [emphasis added]¹⁸⁰

¹⁸⁰ National Security Strategy, February 2015, ii.

In the charge political environment of the day, pundits and critics simultaneously praised and vilified the 2015 *National Security Strategy* especially the phrase "strategic patience and persistence."¹⁸¹

Patience does suggest waiting, and while this seems demoralizing, I defend it, because more active approaches have huge downsides.¹⁸²

... too often, what's missing here in Washington is a sense of perspective ... While the dangers we face may be more numerous and varied, they are not of the existential nature we confronted during World War II or during the Cold War. We cannot afford to be buffeted by alarmism in a nearly instantaneous news cycle¹⁸³

I doubt ISIL, the Iranian mullahs, or Vladimir Putin will be intimidated by President Obama's strategy of "Strategic Patience."¹⁸⁴

The strategy offered by the White House is mostly Pablum.¹⁸⁵

It's not a strategy in any normal sense of the word. There's no vision, no short- or long-term objectives, no priorities, no sense of acceptable means¹⁸⁶

The strategy appears to lack clear guidance and described by some as a strategy of leading from behind—doing little to nothing until something happens, someone crosses a red line and only then, the U.S. reacts. One could argue this has been the U.S. approach

¹⁸¹ Ibid.

¹⁸² Robert E. Kelly, "Strategic Patience Isn't the Disaster You Think it is," *The National Interest*, March 7, 2017, accessed October 8, 2017, <http://nationalinterest.org/feature/strategic-patience-isnt-the-disaster-you-think-it-19702>.

¹⁸³ Gregory Korte, "Obama embraces doctrine of 'strategic patient'," *USA Today*, February 6, 2015, accessed October 8, 2017, <https://www.usatoday.com/story/news/politics/2015/02/06/obama-national-security-strategy/22976909/>.

¹⁸⁴ Tweet from Senator Lindsay Graham, accessed October 8, 2017, <https://twitter.com/GrahamBlog/status/563726521765216256>.

¹⁸⁵ Colin Clark, "Obama's 'Strategic Patience,' Folly or the Future," *Breaking Defense*, February 10, 2015, accessed October 8, 2017, <https://breakingdefense.com/2015/02/obamas-strategic-patience-folly-or-the-future/>.

¹⁸⁶ Email attributed to Steven Metz, found in Clark, "Obama's 'Strategic Patience,' Folly or the Future."

with respect to North Korea, and raises questions about this strategy.¹⁸⁷ Is this a failed strategy not worth continuing? Is there ever value in doing nothing and how does one determine the tipping point when action is needed? How does one measure success?

In a broader context, does the strategic patience and persistence strategy contain a kernel: a diagnosis that clearly recognizes the challenges of the situation, a guiding policy that points to a general way ahead and a set of coherent actions that back-up the guiding policy? I believe so even if short on specifics:

Diagnosis: Our resources and influence are not infinite and in an uncertain world, it may be better to wait until the path is clearer, as we see in three scenarios before making any large commitments.

Guiding policy: We will keep our powder dry and wait until the path forward becomes clear. Because, we have diverse resources to protect our security—military, diplomatic, partnerships—we can afford to carry a little risk in some area without sweating it too much.

Set of coherent actions: We have a sufficient set of indirect actions that will us to react/respond to three of the four scenarios. While the fourth scenario comes with a certain amount of risk, as the lone super power, we are able to shoulder this risk and respond when and if needed, in order to achieve our national goals for the Arctic.

C. CONCLUSION

Depending on whom you are the strategic patience and persistence strategy may convey the following: a failure by leadership to define a hard and fast strategy; a willingness for flexibility and efficiency; acknowledgment of the unknown unknowns; or making a small investment now in hope of a greater return later. All of these have an eye toward keeping the Nation's powder dry until needed. In the next chapter, I will present

¹⁸⁷ Editorial, *Washington Post*, February 9, 2016, accessed October 8, 2017, https://www.washingtonpost.com/opinions/north-koreas-rocket-launch-shows-that-mr-obamas-strategic-patience-has-failed/2016/02/08/dd4a6d4e-ce8e-11e5-88cd-753e80cd29ad_story.html?utm_term=.26aec084d540; and Nicolas K. Gvosdev, "The Flaws of Obama's 'Strategic Patience'," *The National Interest*, January 21, 2016, accessed October 8, 2017, <http://nationalinterest.org/feature/the-flaws-obamas-strategic-patience-14973?page=2>; Charles Krauthammer, "The Obama doctrine: Leading from behind," *Washington Post*, April 28, 2011, accessed October 8, 2017, https://www.washingtonpost.com/opinions/the-obama-doctrine-leading-from-behind/2011/04/28/AFBCy18E_story.html?tid=a_inl&utm_term=.c227a4e60025.

four potential future scenarios for the Arctic with the U.S. employing the strategic patience and persistence strategy.

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V. SCENARIOS AND RESULTS

A. INTRODUCTION

Scenario development is a systematic process. From our national goals for the Arctic, Chapter I, along with the literature review, Chapter II, and analysis of strategic patience and persistence strategy, Chapter IV, I identified the key issues, critical forces, and drivers in the Arctic.¹⁸⁸ Table 6 presents these in an Impact–Uncertainty Matrix. Impact reflects the influence this driver has on future outcomes while uncertainty is the degree to which the future outcomes are ambiguous.¹⁸⁹

Table 6. Impact-uncertainty matrix

		Degree of Uncertainty		
		Low	Medium	High
Level of Impact	High	<ul style="list-style-type: none"> -New territorial claims in the Arctic - Increase in maritime traffic through the Arctic 	<ul style="list-style-type: none"> - U.S. Energy Security - Shipping Routes - Protect U.S. National Security interests 	<ul style="list-style-type: none"> - International Cooperation - Uncertainty of U.S. environmental policies - OPEC’s long-term strategy - Militarization of the Arctic
	Medium	<ul style="list-style-type: none"> - Privatization efforts in the Arctic: tourism, renewable energy. - Worldwide movement to alternative energy 	<ul style="list-style-type: none"> - Search & Rescue capabilities - U.S. fracking impacts on world oil markets - Weak governance by Arctic Council -Impact of non-Arctic nations on trade 	<ul style="list-style-type: none"> - Improve infrastructure in the Arctic - U.S. ratifies UNCLOS - World demand for oil, gas, minerals, etc.
	Low		<ul style="list-style-type: none"> - Research and development in the Arctic - U.S. National will 	<ul style="list-style-type: none"> - Increase U.S. deficit with Arctic expansion

¹⁸⁸ Raslton and Wilson, *The Scenario-Planning Handbook*, 73-103.

¹⁸⁹ Ibid., 103-109.

From this matrix, the next step is to identify the key axes of uncertainty. What are the key variables that may independently influence policy in the Arctic? What independent variables drive uncertainties in the Arctic? Of greatest concern are those outlined with the bold border, darkest gray area, in Table 6. I believe Russia's actions and motives in the Arctic constitute the greatest impact and forecasting the sea ice levels the force most difficult to predict. Figure 13 depicts the set of four possible scenarios derived from these two forces.

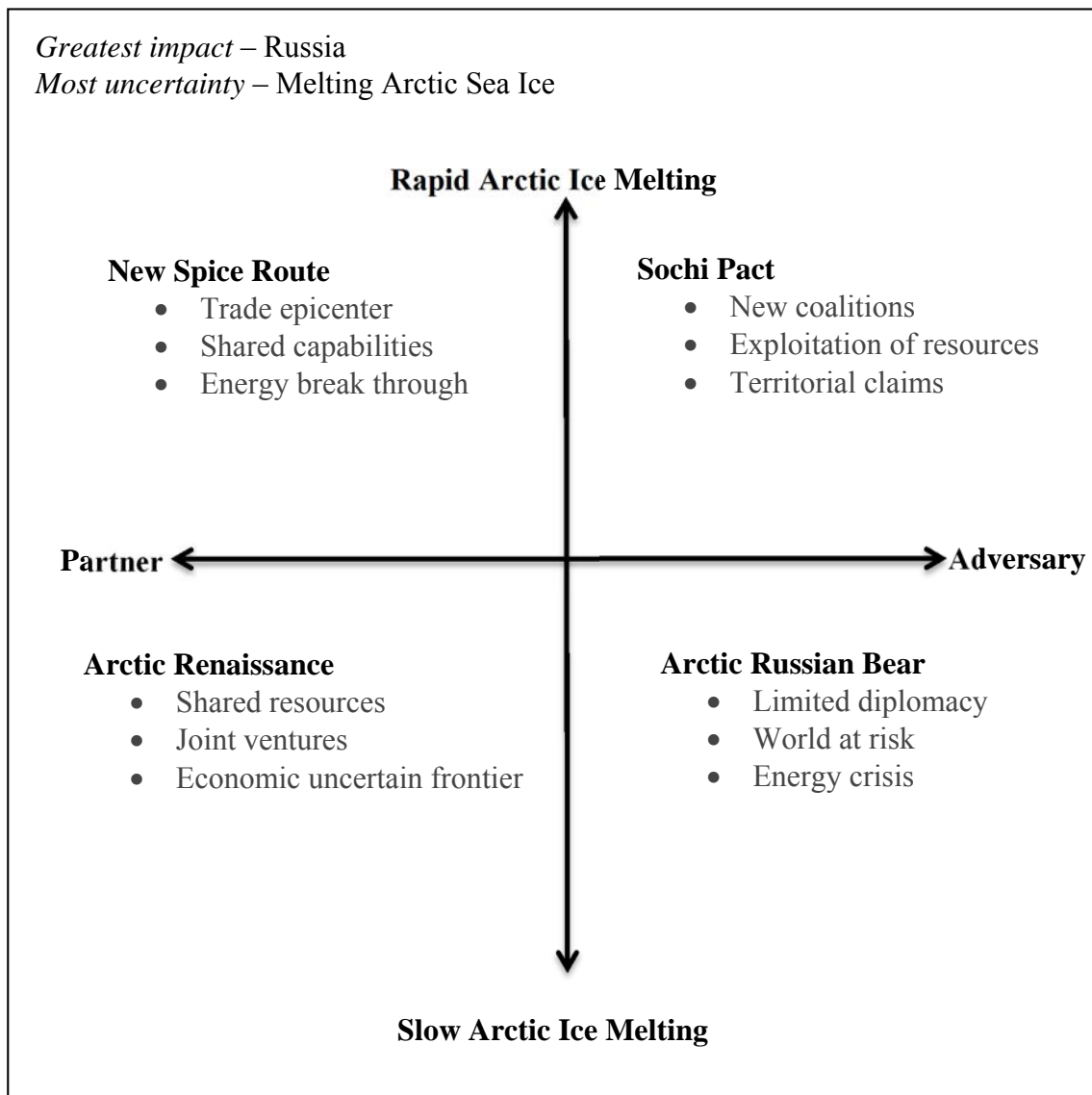


Figure 13. Four potential futures for the Arctic

In the next sections, I will examine how each scenario might evolve given the forces, trends, and uncertainties. These four scenarios and their narratives provide decision makers a means to “think about future threats and opportunities,” especially when viewed through the lens of the strategic patience and persistence strategy.¹⁹⁰

B. SCENARIO 1: NEW SPICE ROUTE

Trade between the Far East and Europe first took place via the Silk Road, an overland route from China, through modern day Iran, Pakistan, and Turkey, ending eventually in Rome. The rise of the Ottoman Empire in 1453 made this route economically unfeasible due to high taxes levied by the Ottoman Empire on those bound for Rome. Merchants turned from an overland route to a sea route, known as the Spice Route.¹⁹¹ Six hundred years later, a new Spice Route opens because of the rapid ice melting in the Arctic.¹⁹² Manufactures in the Far East now transport their goods to Europe and North America via the Arctic, nearly year round, saving time, fuel, and money over previous routes around the Cape of Good Hope or through the Suez and Panama Canals. While this was possible as early as 2010, the Arctic Ocean is now open to shipping 7 months of the year, with no assistance needed by icebreakers. The other 5 months, icebreakers are needed less than 50% of the time to ensure safe passage through the three arctic shipping routes (NWP, NSR and TSR). Russia’s fleet of icebreakers made this shift possible along with their cooperation with the world’s shipping and manufacturing industries. While other Arctic nations have icebreakers, most commissioned between 1990 and 2010, many are now reaching the end of their service life. The United States retired their last icebreaker in 2021 and other countries stopped construction and further development on icebreakers due to the Arctic’s rapid ice melting. Two shifts by Russia and industry made using the Arctic seaways nearly year round possible. As Russia seized the initiative in supplying rockets to service the

¹⁹⁰ Ibid., 125-133.

¹⁹¹ United Nations Educational, Scientific and Cultural Organization, “About the Silk Road,” accessed November 17, 2017, <https://en.unesco.org/silkroad/about-silk-road>.

¹⁹² Jugal K. Patel and Henry Fountain, “As Arctic Ice Vanishes, New Shipping Routes Open,” *New York Times*, May 3, 2017, accessed November 17, 2017, <https://www.nytimes.com/interactive/2017/05/03/science/earth/arctic-shipping.html>.

International Space Station when NASA retired the Shuttle program, so now Russia is taking the lead to ensure safe navigation through the Arctic.¹⁹³ This shift by Russia started elsewhere in the 1990s with the shared economy or peer-to-peer businesses. Airbnb, Uber, eBay, and others transformed and disrupted their perspective business sector.¹⁹⁴ The Arctic shared economy includes Russia's willingness to allow its icebreakers to keep commerce and good moving through the Arctic and for shippers and manufactures to collaborate with them, thereby keeping their costs down and getting goods to market faster.

Russia and China enter into an agreement allowing China's State Construction & Engineering Corporation to construct five floating island cities: three in Russia's Exclusive Economic Zone (EEZ), one north of Greenland and the other north of Canada; the latter two via an agreement with Denmark and Canada. Once completed, scientists and tourists, and the multinational Arctic law enforcement organization will use these; additionally they will provide a safe harbor and a communication platform for those transiting the Arctic Ocean.¹⁹⁵ These floating island cities close two current gaps in the Arctic: more responsive search-and-rescue capability reducing response time from days or weeks to hours or less, and reliable and redundant communications.¹⁹⁶

Energy security is the third transformation taking place in the Arctic. This transformation is not from additional oil or gas platforms or dredging for minerals as more of the Arctic Ocean becomes ice-free but rather utilizing the methane gas released as the permafrost thaws. After the Paris Agreement, Russian energy companies partnered

¹⁹³ Loren Thompson, "Ripples From Crimea In Space: U.S. Seeks To End Reliance On Russian Engines For Satellite Launches," *Forbes*, April 7, 2014, accessed November 17, 2017, <https://www.forbes.com/sites/lorenthompson/2014/04/07/new-rocket-engine-needed-to-rescue-americas-faltering-role-in-space/#4df1e84554d6>.

¹⁹⁴ "The rise of the sharing economy: Peer-to-peer rental," *The Economist*, May 9, 2013, accessed November 17, 2017, <https://www.economist.com/news/leaders/21573104-internet-everything-hire-rise-sharing-economy>.

¹⁹⁵ Carl T.F. Ross and Ricardo Rodriguez McCullough, "Conceptual Design of a Floating Island City," *The Journal of Ocean Technology* 5, No. 1, 2010, accessed November 17, 2017, <http://www.thejot.net/wp-content/uploads/2011/09/V5N1-Homeward-Bound-FINAL2.pdf>.

¹⁹⁶ A.K. Sydnos et al, "International Cooperation on Search and Rescue in the Arctic," *Arctic Review on Law and Politics*, Vol. 8, 2017. Accessed November 19, 2017, 110, <http://dx.doi.org/10.23865/arctic.v8.705>.

with several European companies who embarked upon a biogas revolution in order to achieve the Agreement's goals.¹⁹⁷ Over the years, this partnership refined the recovery process, improved biogas engines, and developed other uses for biogas all in anticipation to capture the methane gas released due to the Arctic thaw.

Through these changes, the United States remained on the sidelines viewing the Arctic as a distant region with little or no connection to the lower 48 states and concentrated on issues closer to home—repairing crumbling infrastructure, improving cyber security, fixing a slowing economy and other issues.

C. SCENARIO 2: ARCTIC RENAISSANCE

Russia continues to spend billions in the Arctic improving infrastructure, building new military installations, repurposing others, training and stationing soldiers in the region and building a fleet of 62 icebreakers, despite years of accelerated melting of the sea in the Arctic. Russia defends the build-up citing long overdue modernization of its arctic forces and achieving four national goals: enhance internal security, study environmental changes taking place in the Arctic due to the accelerated melting of the Arctic ice, support its drilling and mining efforts, and provide Search and Rescue capability due to increase Arctic maritime traffic. Others speculate the build-up is to counter Finland and Sweden joining the NATO Alliance and an attempt by the Russians to control the Arctic and win a second Cold War.¹⁹⁸ Finland and Sweden view their NATO membership not as a challenge Russia but as support to their neighbor, Norway, and as providing a united Nordic front for cooperation with Russia.¹⁹⁹ Most other Arctic

¹⁹⁷ John Abraham, "Methane release from melting permafrost could trigger dangerous global warming," *The Guardian*, October 13, 2016, accessed November 17, 2017, <https://www.theguardian.com/environment/climate-consensus-97-per-cent/2015/oct/13/methane-release-from-melting-permafrost-could-trigger-dangerous-global-warming>.

¹⁹⁸ The first Cold War, 1947-1991, was a geopolitical struggle between the Soviet Union and its satellite states and the western bloc – the U.S., NATO and others. The Soviet Union lost the first Cold War and the second Cold War is Russia's attempt to win control of the Arctic.

¹⁹⁹ Brandon J. Daigle and Brian W. James, "Assessing the Strategic Utility of the High North: The Colder War" (master's thesis, Naval Postgraduate School, 2016), 49 and 63, <http://hdl.handle.net/10945/516767>.

Nations, including the U.S., curtailed development in the Arctic due to costs, lessening of sea ice, and low risks to national security.

The United Nations continues to reject Russia's territorial claims beyond the 200-mile EEZ. Not fazed by these setbacks, Russia continues to drill for oil and mine for minerals in their EEZ. Technical and equipment failures combined with low pay, harsh drilling/mining conditions, and a lack of a qualified work-force have failed to achieve the Russian government forecasts for oil and mineral production in the Arctic. To overcome these setbacks, Russia partners with four multinational mining and drilling companies from Australia, United Kingdom, Brazil, and South Africa and begins to make marginal progress. Despite ongoing unrest and uncertainty in the Middle East and between OPEC members, industrial experts continue to question Russia's exploration in the Arctic. The oil industry has seen stable prices for 20 plus years (\$25/barrel compared to \$51/barrel in 2017), and a global reduction for oil demand due in large part to a breakthrough in autonomous electric vehicles, which created an on demand transport service and electrical generation almost exclusively from wind and solar.²⁰⁰ Adding to the low but stable oil prices was a decision made in mid-2010s by the Kingdom of Saudi Arabia when they enacted their Vision 2030, which sold off a large portion of the state owned oil company in order to diversify the Kingdom's economy. When announced by Crown Prince and Chairman of the Council of Economic and Development Affairs Mohammad bin Salman bin Abdulaziz Al-Saud this bold vision was mocked by critics as "pure fantasy" and by others as a "positive project" calling it "Obligation 2030."²⁰¹

In what many call a surprise move, Canada accepts the U.S. position on a territorial claim in the Beaufort Sea ending the long-standing territorial dispute.²⁰² The origin of the Beaufort Sea dispute dates back to the 1825 treaty between Russia and Great

²⁰⁰ James Arbio and Tony Seba, *Rethinking Transportation 2020-2030: The Disruption of Transportation and the Collapse of the Internal-Combustion Vehicle and Oil Industries*, accessed May 2017, www.rethinkx.com.

²⁰¹ "Vision 2030," Kingdom of Saudi Arabia, accessed October 25, 2017, <http://vision2030.gov.sa/en> and "A future of cheap oil," *The Week*, 18/25 August 2017, 13.

²⁰² Sian Griffiths, "US-Canada Arctic border dispute key to maritime riches," *BBC News*, August 2, 2010, accessed October 23, 2017, <http://www.bbc.com/news/world-us-canada-10834006>.

Britain.²⁰³ Although the U.S. government acknowledged Canada's sovereignty and use of this territory, the U.S. Senate is still unwilling to ratify UNCLOS, which would provide the U.S. a means of arbitration to settle disputes, issues, and misinterpretations and provide stability in the Arctic.

The renaissance brought Europe out of the Middle Ages and into an era of discovery, exploration, growth in commerce, and other changes.²⁰⁴ The events unfolding here become the catalysis for a second renaissance, one not centered in Europe, but in the Arctic, bringing it out of the Ice Age into the modern era. As in the previous scenario, the U.S. remains on the sidelines.

D. SCENARIO 3: SOCHI AGREEMENT

Unlike the U.S., which borders two oceans and two allies, Russia borders Europe/NATO to the west, its former satellite countries to the southwest, India/China/Japan to the south and east and until recently the frozen Arctic to the north.²⁰⁵ With the opening of the Arctic, Russia begins to pursue four national goals: "economics, security, transportation, and development."²⁰⁶

Russia's development pursuit began in 2007 when Russia planted a flag on the seafloor at the North Pole causing a flurry of speculation and outcry.²⁰⁷ Russia has underway five major programs in the Arctic: build new and revitalize existing military bases, move troops into the region, build new icebreakers, invest in Arctic-optimized technology, and improve infrastructure to exploit natural resources.²⁰⁸ Russia continued

²⁰³ Bernard H. Oxman, "The Rule of Law and the United Nations Convention on the Law of the Sea," *European Journal of International Law* 6, no. 3, (1996), <http://www.ejil.org/pdfs/7/3/1369.pdf>.

²⁰⁴ *Encyclopedia Britannica*, "Renaissance," accessed November 18, 2017, <https://www.britannica.com/event/Renaissance>.

²⁰⁵ Zbigniew Brzezinski, *The Grand Chessboard* (New York: Basic Books, 1997), 197-208.

²⁰⁶ Caitlyn L. Antrim, "The Russian Arctic in the Twenty-First Century," in *Arctic Security in an Age of Climate Change*, ed. James Kraska, (Cambridge: Cambridge University Press, 2011), 111.

²⁰⁷ C. J. Chivers, "Russians Plant Flag on the Arctic Seabed," *The New York Times*, August 3, 2007, accessed February 4, 2017, <http://www.nytimes.com/2007/08/03/world/europe/03arctic.html>.

²⁰⁸ Andrew Poulin, "5 Ways Russia Is Positioning to Dominate the Arctic," *Russia Insider*, January 25, 2016, accessed April 28, 2017, <http://russia-insider.com/en/politics/5-ways-russia-positioning-dominate-arctic/ri12418>.

to test the West with its invasion and annexation of Crimea in 2014. However, with a change in the U.S. administration, Russia switches from hard power to “soft or non-hard power instruments in the Arctic.”²⁰⁹ Russia’s advances in the Arctic continued in August 2017 with *Christophe de Margerie*, a Russian owned ship carrying liquefied natural gas, making it through the Northern Sea Route without the aid of an icebreaker. Russia plans on building 15 more of these specialized tankers.²¹⁰

Russia seizes on America’s reluctance to engage the world community to include its closest neighbors, Canada and Mexico, with three unexpected coup d’état. First, it establishes a bilateral agreement with Canada. This agreement is mutually beneficial to Canada and Russia to resolve their territorial claims, allowing Canada to control the Northwest Passage and Russia the Northern Sea Route. Second, Russia circumvents the Arctic Council and United Nations and creates a new partnership consisting of Russia, Canada, Sweden, Norway, Finland, Singapore, and South Korea, known as the *Sochi Agreement*. The *Sochi Agreement* is Russia’s renewed attempt at unifying countries around its goals and away from the West, as it tried with the Warsaw Pact. This partnership is mutually beneficial to all in that Russia gains access to markets and technologies by providing needed sealift capabilities to their partners who see a greater benefit partnering with Russia than competing against it. Lastly, Russia relaxes its laws, which restricted public-private partnerships with Western governments and companies.²¹¹ Recognizing success in these actions, Russia alone and in combination with the *Sochi Agreement* engages the non-Arctic nations seeking additional partnerships that are advantageous for each other.

The U.S. for its part continues to pursue policy choices inconsistent with the emergence of Russia’s new posture as depicted in this scenario.

²⁰⁹ Alexander Sergunin, “Is Russia Going Hard or Soft in the Arctic,” *The Wilson Quarterly*, Summer 2017, accessed October 26, 2017, <https://www.wilsonquarterly.com/quarterly/into-the-arctic/is-russia-going-hard-or-soft-in-the-arctic/>.

²¹⁰ Russell Goldman, “Russian Tanker Completes Arctic Passage Without Aid of Icebreaker,” *The New York Times*, August 25, 2017, accessed October 26, 2017, <https://www.nytimes.com/2017/08/25/world/europe/russia-tanker-christophe-de-margerie.html>.

²¹¹ Dingle and James, “Assessing the Strategic Utility of the High North,” 55-58, 63-64.

E. SCENARIO 4: ARCTIC RUSSIAN BEAR

The DOD underwent two strategic changes or offsets to win the Cold War. The first offset occurred in the 1950s, when the United States gained a strategic advantage over the Soviet Union by developing a nuclear arsenal to counter their numerical conventional advantage in Europe.²¹² Some twenty years later the Soviets closed the nuclear gap, requiring the U.S. to undergo a second offset—guided precision conventional weapons utilizing stealth, global positioning system and computer networks, all which made “accuracy independent of range.”²¹³ Drawing from the U.S. success winning the first Cold War with superior technology despite a shrinking budget, Russia embarks on a similar plan for the Arctic. They do this with a robust plan to increase its Arctic military footprint and capabilities. This includes having a fleet of 55 icebreakers, building/refurbishing nine Arctic military installations, training and equipping five Arctic Brigades, winterizing 25% of its conventional forces/equipment to allow it to operate in the Arctic, and conducting monthly live fire exercises involving all branches of its military services. As in the second scenario, Russia defends the build-up citing long overdue modernization of its arctic forces required to achieve their four national goals. Others view Russia’s Arctic plan as an extension of their regional conflicts in Crimea, Syria, and Africa.

Although the NATO and others acknowledge this build-up, no country is in a position to match it. Decision makers deemed the Arctic low threat when faced with more pressing security issues namely persistent cyberattacks, homegrown violent extremism, and pandemic infections. Despite some uncertainty, scientific forecasts indicate, at least through 2050, a continual warming in the Arctic resulting in less sea ice and lessening the need for icebreakers and other specialized equipment. These predictions hold until 2025 when the Arctic slowly returns to seasonal freeze/thaw levels seen in the 1970s. However, it will take 10 years or longer before perennial (multiyear) ice returns to the

²¹² Van Jackson, “The Pentagon’s Third Offset Strategy: What US Allies and Partners Need to Know,” *The Diplomat*, April 28, 2015, accessed July 15, 2017, <http://thediplomat.com/2015/04/the-pentagons-third-offset-strategy-what-us-allies-and-partners-need-to-know>.

²¹³ Shawn Brimley, “Offset Strategies & Warfighting Regimes,” *War on the Rocks*, October 15, 2014, accessed July 15, 2017, <https://warontherocks.com/2014/10/offset-strategies-warfighting-regimes/>.

Arctic, requiring icebreakers or other ice handed vessels in order to transit the Arctic shipping routes. These changes happened because of three changes: developed countries assisting developing countries lowering their greenhouse gases, an increase use of alternative fuels in autos and breakthroughs in green energy production.

Russia takes advantage of the West's complacency toward the Arctic with a series of provocative steps. The Russian Navy begins to reposition several of its icebreakers and Arctic capable warships in what analysts believe is an attempt to blockade the Bering Strait, which would create another Ice Curtain in the Arctic.²¹⁴ If successful, the blockade would stop all maritime traffic moving through the Arctic via the NSR, NWP, and TSR and could bring about a massive rescue and humanitarian mission, as the blockade would strand several cruise ships and numerous commercial fishing vessels. Peterson in his work suggests a Russian arctic blockade is a precursor to hostilities by preventing enemy forces access into or out of the Arctic.²¹⁵ As of now, U.S. intelligence agencies are uncertain of Russia's intent.

In 2022, in response to numerous state sponsored/supported cyberattacks, the UN expands the International Court of Justice's (ICJ's) jurisdiction to include state sponsored/supported cyberattacks. Russia's economy is feeling the effects of the ICJ imposed sanctions—high employment, lower life expectancy, and technologically trailing other developed countries.²¹⁶ Should Russia succeed in getting the blockade in place, analysts believe Russia will expand its oil and mineral exploration beyond their EEZ, in areas previous declared by the UN not part of Russia's EEZ and therefore off-limits for oil and mineral exploration/extraction.

While many of the U.S. partnerships remain—NATO, Arctic Council, bilateral defense agreements between the United States and Japan, Korea, Australia and New Zealand—economic sanctions and diplomatic pressure by these are unable to persuade

²¹⁴ Peter A. Iseman, "Lifting the Ice Curtain," *The New York Times*, October 23, 1988, accessed October 27, 2017, <http://www.nytimes.com/1988/10/23/magazine/lifting-the-ice-curtain.html?pagewanted=1>; Charles C. Peterson, *Soviet Military Objectives in the Arctic Theater and How They Might Be Obtained*, Center for Naval Analysis, November 10, 1986, 11.

²¹⁵ Peterson, *Soviet Military Objectives in the Arctic Theater and How They Might Be Obtained*, 8-11.

²¹⁶ Sergunin, "Is Russia Going Hard or Soft in the Arctic".

Russia to abandon its actions or begin negotiations towards a mutually benefiting solution. Without firing a shot, launching a missile, or invading another country, Russia could hold the world at risk in an area none are prepared to venture.

F. SUMMARY

These scenarios present policymakers four alternate futures where Russia's actions either hold the world at risk (adversary role) or begins to aligns itself with other nations in first-of-its-kind relationships (partner role). At the same, we can see the impact the melting sea ice has on their and other nations actions. The next chapter will consider the risks, costs, and benefits of the U.S. pursuing the strategic patience and persistence strategy on its ability to protect its national security interest, the homeland and ensure freedom of the seas.

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VI. FINDINGS

The four scenarios narrated in the previous chapter are not predictions or forecasts about the future; rather they explore the problem space in order to prepare policy makers for specific “decision-focused” views of the future.²¹⁷ The four scenarios present challenges and opportunities for the national goals for the Arctic and reflect what James Schlesinger postulated shortly after the end of the Cold War:

[I]n the Cold War the United States rose to the challenge. It persevered. It stayed the course. ... But the Cold War was unique. There was a clear and present danger – an unequivocal threat that sustained the attention and the support of the American people. ... Our *permanent interests* are less clearly defined and more difficult to discern. ... Can we stay the course in this new context of foreign policy? Only if we are sufficiently disciplined to select those tasks, few in number, that truly involve the longer-term interests of this society -- and avoid becoming sidetracked by the many lesser tasks (brought to our attention by an enterprising news industry) that would exhaust the patience of the America public.²¹⁸

A. EFFECTIVENESS OF THE STRATEGIC PATIENCE AND PERSISTENCE STRATEGY

In evaluating the effectiveness of the strategic patience and persistence strategy to achieve the U.S. three Arctic goals: protect its national security interest, the homeland and ensure freedom of the seas; I will use three categories: costs, risks, and benefits. Costs include more than annual expenditures by various levels of government toward homeland security but also non-tangible items. Such as the political, military, and diplomatic costs to U.S. standing in the world as it pursues a wait-and-see approach to the Arctic. Risks are the unintended consequences utilizing strategic patience and persistence strategy in achieving the national Arctic goals. Finally, benefits are an assessment of

²¹⁷ Ralston and Wilson, *The Scenario-Planning Handbook: A Practitioner's Guide to Developing and Using Scenarios to Direct Strategy in Today's Uncertain Times*, 16.

²¹⁸ James Schlesinger, “Quest for a Post-Cold War Foreign Policy,” *Foreign Affairs*, 1992/1993 America and the World, accessed October 28, 2017, <https://www.foreignaffairs.com/articles/1993-02-01/quest-post-cold-war-foreign-policy>.

whether the strategic patience and persistence strategy meets the U.S. Arctic goals in each scenario.²¹⁹ Table 7 provides a summary of the findings.

²¹⁹ John Mueller and Mark G. Stewart, “Balancing the Risks, Benefits, and Costs of Homeland Security,” *Homeland Security Affairs* 7, Article 16 (August 2011). <https://www.hsaj.org/articles/43>.

Table 7. Summary of findings

Criteria	Scenarios			
	New Spice Route	Arctic Renaissance	Sochi Agreement	Arctic Russian Bear
Costs	In terms of money, this option costs the U.S. nothing. Scenario could diminish the U.S. standing in innovation, business, and leadership.	In terms of money, this option costs the U.S. nothing. U.S. diplomatic inaction may cause other countries to resolve disputes less favorable for the U.S. U.S. portrayed as unwilling to negotiate on seemingly minor disputes.	In terms of money, this option costs the U.S. nothing. However, U.S. standing in the world diminished as Russia takes the lead on diplomatic negotiations unifying disparate countries to common Arctic goals and objectives.	In terms of money, this option costs the U.S. nothing. However, this may prevent the U.S. to achieve its three Arctic goals.
Risks	Scenario poses little threat to the U.S. three Arctic goals; could hurt standing in the world. Failure by U.S. to develop infrastructure could leave it vulnerable, i.e., limited deep-water ports, airfields, etc. Russian investment has potential for dual use, civilian and military, the U.S. has limited response options for latter.	Scenario poses limited risk to the U.S. achieving its three Arctic goals. Russia's modernizing its Arctic capabilities, while reasonable given its age, poses the risk of dual use, which no one nation or coalition of nations can respond to.	U.S. may find itself further behind the world with respect to its Arctic capabilities. As a non-signatory of the <i>Agreement</i> effects on the U.S. could be similar to UNCLOS, where the U.S. finds itself on the outside.	Russia blockades the Arctic in order to maintain military security and drills in waters outside their EEZ, however, the chance of this scenario playing out is considered very unlikely (<10%). The U.S. is dependent on other nations for its Arctic security.
Benefits	Russia, China and others investments in the Arctic allows the U.S. to address more serious homeland security issues affecting the nation. These countries make the big upfront investments in the Arctic; the U.S. can learn and invest at a time of its choosing, learning from their missteps and achieve similar results for less money.	U.S. achieves its three Arctic goals without major investments in the Arctic. Allows the U.S. to focus on more pressing issues.	U.S. achieves its three Arctic goals and as in the other scenarios, allows the U.S. to focus on other issues—homeland security, infrastructure, etc.	Should this scenario play out, this could revitalize U.S. defense industry as it develops Arctic capabilities to respond to this crisis. Until such time, the U.S. can focus on other issues.

1. New Spice Route Outcome

This scenario along with the next two is the most promising for the U.S. to achieve its three Arctic goals. From a monetary perspective, the U.S. expends nothing in the way of public or private funds. Russian, Chinese, and European companies, backed by their governments, explore new ventures in the Arctic—a big risk, which could yield an even bigger benefit. On the surface, Russia's assistance with getting goods through the Arctic appears as a win-win for them, and businesses and consumers of those goods. However, if the U.S. does not develop or expand its Arctic capabilities and infrastructure, Russia's initiative in the Arctic, could potentially lead to Russia supporting cargo movement to countries favorable to it while forcing others to seek alternate more costly routes.

Similarly, the Russia-China floating island city agreement is a win for everyone using the Arctic and costs the United States nothing. While international Search and Rescue agreements require vessels to respond to those in distress, the Arctic's vast distances, harsh environment, and limited communication and infrastructure makes these challenging if not impossible operations. Denmark and Canada's economy and citizens depend in part on the Arctic; both countries see great potential and benefit from these floating islands. This good can quickly become a threat to the U.S. should Russia decide to militarize their floating island cities. Should this happen, the U.S. response options are limited and it will seriously jeopardize its ability to protect its national interest and ensure freedom of the seas.

The biogas movement is a win for energy development, energy security, and the environment. Instead of viewing the release of methane gas into the environment as a fait accompli with no viable solution, others took up the challenge and found a way to harness this energy source. As in the two previous areas, this comes at no cost to the U.S. however, it puts the country's energy program and indirectly the nation's national interests at risk due to its limited energy diversity as well as lower gas prices that could influence gas fracking. Globally, this could slow the transition to renewable energy as lower gas prices make gas a cheaper option than renewable energy.

A benefit to inaction by the U.S. is it allows others to address these issues to include homeland security concern. While the U.S. citizens may remain safe, avoiding costly technologies and capabilities with limited applications could hurt the U.S. in other ways. Viewed today as the world's leader in innovation, leadership and solving hard problems (e.g., putting a man on the moon), avoiding the Arctic because it is too costly, too far, not an issue for the lower 48 states puts all of this into jeopardy.

2. Arctic Renaissance Outcome

Although this scenario allows the U.S. to achieve its three Arctic goals, it comes with a certain amount of risks. Russia's reasons for modernizing its Arctic capabilities and infrastructure on the surface seem reasonable, however, no one country or coalition of countries is able to match Russia's Arctic capabilities should their motives turn from peaceful to confrontational and hinder freedom of the seas.

The U.N. rejection of Russia's territorial claims on the one hand is good for the environment as it limits Arctic exploration and the potential for catastrophic disaster should an oil spill occur in the Arctic. However, will there come a time when Russia ignores the U.N. ruling and begins exploration in non-EEZ waters? Would this cause its partner companies to back out of their drilling and mining agreements siding with the U.N. ruling and maintaining the rule-of-law over profits? What if any retaliatory actions would Russia take against these companies and their governments?

Canada's unilateral acceptance of the U.S. position on the Beaufort Sea is in the eyes of most experts as more beneficial to the U.S. That said, Canada does not come away empty handed, but can at its time and choosing start mining and drilling in this previously disputed area. The U.S. has territorial disputes involving The Bahamas, Marshall Islands, Russia, and Cuba who may follow Canada's lead and accede to the U.S. position in order to move forward with their national plans and not wait for the U.S. to come to the negotiation table to hammer out an agreeable solution.²²⁰

²²⁰ CIA, "Field Listing – Disputes – International," *The World Factbook*, accessed November 20, 2017, <https://www.cia.gov/library/publications/the-world-factbook/fields/2070.html>.

As in the first scenario, the costs associated with this scenario are not monetary, but rather to U.S. credibility and willingness to compromise and work with other nations on reaching a mutually beneficial solution. The scenario leverages cooperation and trust not conflict and doubt. This level of trust and cooperation is nothing new. Following the end of the Cold War, 34 countries signed onto the Open Skies Treaty considered the “most wide-ranging international arms control efforts to date to promote openness and transparency in military forces and activities.”²²¹ The Open Skies Treaty is a low cost, low risk treaty with high benefits. Russia views the Arctic as a region with great strategic importance and this scenario gets them out in front of the U.S. bringing with them others interested in the region but unable to do so with their limited resources.

3. Sochi Agreement Outcome

The monetary costs for this scenario are negligible; however, this scenario is not without its costs. Russia’s ability to broker this agreement between Arctic and non-Arctic countries reflects Russia’s political influence to unite disparate countries around their interests for the Arctic versus the U.S. or those of the Arctic Council. If this *Agreement* proves successful, other countries will certainly sign on to it, creating what Espen Barth Eide warned about, others starting their own club.²²² The Warsaw Pact was an attempt by the then former Soviet Union to control Central and Eastern Europe following War World II from 1954 to 1991. Russia’s attempt to control the Arctic could have worldwide implications, should it impose heavy tolls, fees, or restrictions for transit through the Arctic by non-Sochi members. The latter could prevent the U.S. from ensuring freedom of the seas.

Impacts to national interests and protecting the homeland are minimal for this scenario. Six countries joined Russia to form this *Agreement*, which focuses on exclusively on the Arctic. In the future, other countries may join this *Agreement*, but again the focus is on Arctic specific issues—trade, commerce, development, etc. It is

²²¹ U.S. Department of State, “Treaty on Open Skies,” accessed October 29, 2017, <https://www.state.gov/t/avc/cca/os/index.htm>.

²²² Morten Brugård, “Norway says yes to China in Arctic Council.”

common for countries to sign on to regional agreements in order to advance their goals and aims some include: Association of Southeast Asian Nations, European Union, African Union, or Organization of American States. Still others sign on to specific issue such Paris Agreement (Climate), Ottawa Treaty (Anti-personnel mines), Geneva Conventions (treatment during armed conflict), and others. Should Russia's actions turn from one of cooperation to hostility, signatories of the *Sochi Agreement* are likely to suspend their *Sochi* obligations in order to maintain a peaceful Arctic.

Russia's pursuits in the Arctic outpace all other Arctic nations combined in size and scope. This scenario suggests now is the time for the U.S. to start revitalizing its Arctic capabilities and infrastructure. This is especially true given the long lead-time to develop and build in the Arctic. I would argue these projects need not be on the scale and scope of the five Russia has underway, but substantial to convey a strategic message to Russia and the world on the U.S. interests to maintain a peaceful Arctic.

4. Arctic Russian Bear Outcome

Of the four scenarios, this scenario poses the greatest danger to the United States driven by three factors—decision, indecision, and misinterpretation. Decisions made by the United States to focus on more pressing threats, while at the time provided the greatest benefit with minimal risk, created vulnerabilities in the Arctic. Indecision by policymakers for failing to call Russia's bluff earlier or thinking action by U.S. will make a bad situation worse. Finally, U.S. decision makers' misinterpretation of Russia's true intentions by failing to recognize or refusing to believe the facts and their strategic importance.²²³ As in the previous scenarios, the monetary costs to do nothing are negligible, but doing so negatively affects the United States' three national Arctic goals.

The U.S. strategic and conventional forces have protected its citizens, homeland, and national security interests. However, as this scenario unfolds, the U.S. and its allies have limited military options to counter Russia's Arctic blockade and any follow-on actions they may pursue. As depicted in the scenario, economic sanctions have limited

²²³ Peterson, *Soviet Military Objectives in the Arctic Theater and How They Might Be Obtained*, 18-22.

impact given Russia's current economic situation and diplomatic sanctions would play well in the press, but again with little or no affect to alter Russia's strategic plan.

Should the blockage materialize, freedom of the sea through the Arctic is impossible without military or diplomatic action. On both of these, the U.S. lacks an effective means to alter Russia's plans. Militarily, the U.S. has limited forces and equipment to operate in the Arctic and respond appropriately to Russia's blockade. Although the U.S. could appeal to the United Nations, expel Russian diplomats, and enact other diplomatic measures, without knowing Russia's intentions, these actions seem counterproductive and could extend rather than resolve the current situation. While it may seem an unlikely scenario, could the Arctic turn into another Ukraine or Syria, where Russia exploits the U.S. Arctic policy and finds itself "one step ahead of the West"?²²⁴

B. CONCLUSIONS

The Arctic presents the U.S. with many challenges and opportunities. One might call the strategic patience and persistence strategy, a strategy of restraint. The challenge is not always rushing in to the sound of guns, but rather waiting until the conditions are right for action. An opportunity for the U.S. to "recognize its limitations, conserve resources" and encourage "cooperative security" by allowing its allies to perform a greater role in their security.²²⁵

²²⁴ Sergunin, "Is Russia Going Hard or Soft in the Arctic" and David J. Kramer, "U.S. foreign policy comes home to roost with Russia's action in Ukraine," *Washington Post*, March 1, 2014, accessed October 29, 2017, https://www.washingtonpost.com/opinions/us-foreign-comes-home-to-roost-with-russias-action-in-ukraine/2014/03/01/10be38bc-a18d-11e3-b8d8-94577ff66b28_story.html?utm_term=.dd24175d114f; Martin Hurt, "Preempting Further Russian Aggression Against Europe: Acceptance of Russia's aggression in Europe will only invite more," *2016 Index of Military Strength*, accessed November 24, 2017, <http://index.heritage.org/military/2016/essays/preempting-further-russian-aggression/>.

²²⁵ Barry R. Posen, "A New U.S. Grand Strategy," *Boston Review*, July 1, 2014, accessed November 6, 2017, <http://bostonreview.net/us/barry-r-posen-restraint-grand-strategy-united-states>.

VII. CONCLUSIONS AND RECOMMENDATIONS

A. WRAP-UP

Western strategists regarded the Arctic, as the “fourth wall” which enclosed Russia to the north and until recently believed containing Russia rested on geography and political power.²²⁶ Russia viewed this not a wall to contain it, but one to overcome using technology (a fleet of icebreakers), economics (a pipeline from Siberia to Western Europe), changing climate (inaccessible regions available for human development), and evolving international laws (UNLCOS ratified in 1982, Arctic Council established in 1996, Ilulissat Declaration passed in 2008, and makes progress on the maritime dispute with Norway).²²⁷

Today, the West views the melting Arctic sea ice with one eye on its risks and the other on its rewards. The risks entail impacts to the environment, indigenous people, and the climate. The rewards are quicker shipping routes, new areas for offshore oil and gas, natural resource development, tourism, and more, albeit private rewards winning out over social costs. Russia sees this as an opportunity to pivot away from Central Asia where it lost its foothold with the fall of the Iron Curtain and pursue a new course in the Arctic centered on four factors: foreign policy, military security, economic development, and transportation and maritime policy.²²⁸

Scientists with a very high level of confidence predict “an Arctic-wide ice loss is expected to continue through the 21st century, very likely (>90%) resulting in nearly sea ice-free late summers by the 2040s.”²²⁹ At the same time, others are calling on the USCG to buy four heavy icebreakers, with an average cost of \$791 million and lifetime

²²⁶ Antrim, “The Russian Arctic in the Twenty-First Century,” 110.

²²⁷ Ibid., 116-119; Ilulissat Declaration commits the five Arctic coastal countries (Canada, Norway, Denmark, Russia and the U.S.) to resolve issues through diplomatic means.

²²⁸ Antrim, “The Russian Arctic in the Twenty-First Century,” 120-124.

²²⁹ Taylor, P.C., W. Maslowski, J. Perlwitz, and D.J. Wuebbles, 2017: *Arctic Changes and their Effects on Alaska and the Rest of the United States*, 303; “Very high level of confidence” is defined as “Strong evidence (established theory, multiple sources, consistent results, well documented and accepted methods, etc.), high consensus.”

costs in excess of \$6.5 billion, in lieu of three heavy and three medium icebreakers given our restrained budget environment.²³⁰ Given these and other uncertainties, the strategic patience and persistence strategy is a viable approach to pursue in the Arctic, which allows the U.S. to achieve its three national Arctic goals.

B. RECOMMENDATIONS FOR POLICY MAKERS

One of the key aspects to using scenarios is to identify signposts—external warnings or precursors—indicating a scenario becoming a reality.²³¹ The challenge within the Homeland Security and Defense realm is sorting through the immensity of data, evaluating its trustworthiness, and identifying its tipping point.

The signposts are in place for the New Silk Road as seen by the increase in maritime traffic through the Arctic. Policymakers need to ensure safe passage with minimal impact to the environment and indigenous people and to keep the Arctic arms free. The Arctic Renaissance signposts will be evident should Russia continue to expand its arctic capabilities, especially as the rate of melting Arctic ice increases. Their energy development initiatives within their EEZ will also be evident. Both would provide the U.S. an opportunity to collaborate instead of compete with Russia. The *Sochi Agreement* reflects a business practice of seeking a partner beneficial to all parties involved, resulting in a win-in-win for all parties. In this scenario, while the United States is on the sidelines, it should remain vigilant for unusual partnerships. Why is Russia reaching out to a long-standing adversary? Why would Canada and others agree to cooperate with the Russian's now, what can they gain from this agreement? While the United States may continue to hold fast remaining on the sidelines, it is in these nascent moments when U.S. policymakers should begin to question their hands-off policy and weigh the risks/benefits of joining these partnerships. Finally, the cost, lead-time, and uncertainty of the Arctic Russian Bear would require the United States to consider all facets of its decisions and

²³⁰ Ben Werner, "Report: Coast Guard Should Focus on Buying Heavy Icebreakers," *USNI News*, November 20, 2017, accessed November 25, 2017, <https://news.usni.org/2017/11/20/report-coast-guard-focus-heavy-icebreakers>; National Academy of Science, *Acquisition and Operation of Polar Icebreakers: Fulfilling the Nation's Needs* (Washington, DC: The National Academy Press, 2017), DOI 10.17226/24834.

²³¹ Ralston and Wilson, *The Scenario-Planning Handbook*, 167-168.

not just costs. In many ways, this is akin to the calculus undertaken today regarding actions against North Korea—are there any good options? A signpost U.S. policymakers should consider is using matching versus choice for their decisions: “at what price do other options become more attractive” versus “why should we do this?”²³²

Based on my analysis, U.S. policymakers should look for a few key low cost initiatives to operationalize the strategic patience and persistence strategy by doing the following:

- Make a small investment now in the Arctic, which would provide the U.S. a forward operating location (base or deep-water port) to respond to an accident or incident in the Arctic or deploy forces to counter Russia aggression.
- Build three deep-water ports in the Arctic in collaboration with Norway and Canada in order to improve its situational awareness on actions taking place in the Arctic, especially by Russia.
- Extend the service life of the remaining icebreakers to 2040 in lieu of building new medium and/or heavy icebreakers. By 2040, icebreakers should no longer be needed in the Arctic.
- Amend the Jones Act for the Arctic to allow non-US owned and operated ships to transport goods between U.S. ports through the Arctic. If successful, then the U.S. should collaborate with other Arctic nations who own and operate modern icebreakers (with less crew, lower carbon footprint, etc.) and newer ships capable of transitioning the Arctic without the need for an icebreaker escort.
- Ratify UNCLOS and pursue other diplomatic actions to solidify the U.S. relations with our key Arctic and non-Arctic partners.
- Build upon the limited exercises taking place in the Arctic—ICEX, Arctic Chinook, and others—in order to prepare the various Federal Departments and Agencies to respond to emerging issues (oil spill, stranded tourist vessel, blockade, treaty violation, etc.).

C. FUTURE RESEARCH / OPEN QUESTIONS

While the Arctic may remain an area of little conflict or of homeland security concerns for policymakers, nonetheless, the method used in this thesis could assist them

²³² Bradley DeWess, “What should we about North Korea? We may be thinking about it all wrong,” *Washington Post*, September 10, 2017, B3.

in evaluating future policy decisions by exploring potential future scenarios versus predicting the future using traditional forecast tools and models. Researchers should consider using scenarios as a methodology as an alternative to the typical decision making process: define/analyze the problem, develop courses of actions (COA), analyze advantages/disadvantages, select the best COA, implement, test, and follow-up.²³³

In general, when there is a lot of uncertainty, as there is in the Arctic, low cost options are the best way to go. One keeps nearly all their powder dry and invests in a few selective projects that may yield many options or specific projects to protect the U.S. national goals. What are some projects in which the U.S. should invest, either alone, with a partner nation, or private entity?

For what others areas of national security should the U.S. adapt the strategic patience and persistence strategy—addressing pandemic diseases, monitoring and tracking all vessels (ships, trains, trucks) carrying hazardous cargo, conducting TSA-like screenings for commercial trains and buses?

Finally, an important area for research would be understanding what factors are the most important triggers to move policymakers out of strategic patience and persistence strategy to an active posture in the Arctic. What are the key signals U.S. policymakers should look for and what active steps should they pursue?

²³³ Marjolein B.A. van Asselt, et al, *Foresight in Action – Developing Policy-Oriented Scenarios*, 22-24.

APPENDIX A. LIST OF NATIONAL ARCTIC POLICIES

1994 Presidential Decision Directive/NSC-26–United States Policy on the Arctic and Antarctic Regions	2009 National Security Presidential Directive 66/ Homeland Security Presidential Directive 25– Arctic Region Policy	2010 National Security Strategy	2015 National Security Strategy	2013 National Strategy for the Arctic Region– Lines of Effort (LOEs) 1 and 3 apply to this thesis
Meeting post-Cold War national security and defense needs	Meet national security and homeland security needs relevant to the Arctic region	The United States is an Arctic Nation with broad and fundamental interests in the Arctic region, where we seek to meet our national security needs, protect the environment, responsibly manage resources, account for indigenous communities, support scientific research, and strengthen international cooperation on a wide range of issues.	Confronting Climate Change: The present day effects of climate change are being felt from the Arctic to the Midwest.	LOE 1: Advance U.S. Security Interests <ul style="list-style-type: none"> • Evolve Arctic Infrastructure and Strategic Capabilities • Enhance Arctic Domain Awareness • Preserve Arctic Region Freedom of the Seas • Provide for Future United States Energy Security
Protecting the Arctic environment and conserving its biological resources	Protect the Arctic environment and conserve its biological resources		Air and Maritime Security: [W]e seek to build on the unprecedented international cooperation of the last few years, especially in the Arctic as well as in combatting piracy off the Horn of Africa and drug-smuggling in the Caribbean Sea and across Southeast Asia	LOE 3: Strengthen International Cooperation <ul style="list-style-type: none"> • Pursue Arrangements that Promote Shared Arctic State Prosperity, Protect the Arctic Environment, and Enhance Security • Accede to the Law of the Sea Convention

1994 Presidential Decision Directive/NSC-26–United States Policy on the Arctic and Antarctic Regions	2009 National Security Presidential Directive 66/ Homeland Security Presidential Directive 25– Arctic Region Policy	2010 National Security Strategy	2015 National Security Strategy	2013 National Strategy for the Arctic Region– Lines of Effort (LOEs) 1 and 3 apply to this thesis
				and Related Affairs
Assuring that natural resource management and economic development in the region are environmentally sustainable	Ensure that natural resource management and economic development in the region are environmentally sustainable		Advance our Energy Security: We will also stay engaged with global suppliers and our partners to reduce the potential for energy-related conflict in places like the Arctic and Asia.	
Strengthening institutions for cooperation among the eight Arctic nations	Strengthen institutions for cooperation among the eight Arctic nations (the United States, Canada, Denmark, Finland, Iceland, Norway, the Russian Federation, and Sweden)			
Involving the Arctic’s indigenous peoples in decisions that affect them	Involve the Arctic’s indigenous communities in decisions that affect them			
Enhancing scientific monitoring and research into local, regional, and global environmental issues	Enhance scientific monitoring and research into local, regional, and global environmental issues			

APPENDIX B. LINE OF EFFORT 1 AND SELECT PORTIONS OF LINE OF EFFORT 3 FROM IMPLEMENTATION FRAMEWORK FOR THE NATIONAL STRATEGY FOR THE ARCTIC REGION

Line of Effort 1: Advance U.S. Security Interests

Evolve Arctic Infrastructure and Strategic Capabilities

1.1 Prepare for Increased Activity in the Maritime Domain

Objective: Guide Federal activities related to the construction, maintenance, and improvement of ports and other infrastructure needed to preserve the mobility and safe navigation of United States military and civilian vessels throughout the Arctic region.

Next Steps: Create a coordinated approach toward improving and maintaining infrastructure in support of Federal maritime Arctic activities prioritized in consideration of national security, navigation safety, and stewardship of national resources. This coordinated approach will include:

1.1.1 Deliver a 10–year prioritization framework to coordinate the phased development of Federal infrastructure identified through a Department and Agency validated needs assessment by the end of 2016. **Lead: Department of Transportation (as Chair of the Committee on the Marine Transportation System)**

1.1.2 Develop recommendations for pursuing Federal public–private partnerships in support of the needs assessment and identified prioritized activities by the end of 2017.

Lead: Department of Transportation (as Chair of the Committee on the Marine Transportation System)

1.1.3 Evaluate the feasibility of deepening and extending harbor capabilities in Nome, Alaska, and if the evaluation determines that navigation improvements are appropriate, begin planning efforts, including developing a construction timeline by 2020. **Lead: Department of Defense (U.S. Army Corps of Engineers)**

Supporting Agencies: Member departments and agencies of the Committee on the Marine Transportation System

1.2 Sustain and Support Evolving Aviation Requirements

Objective: Advance the stability, safety, and security of the aviation environment in the U.S. Arctic region.

Next Steps: The following deliverables will be pursued in accordance with the Federal Aviation Administration’s baseline schedules and capital investment plan and through partnering with the State of Alaska:

1.2.1 Complete Automatic Dependent Surveillance–Broadcast (ADS–B) ground station deployments by the end of 2016. **Lead: Department of Transportation (Federal Aviation Administration)**

1.2.2 Continue conducting Wide Area Augmentation System (WAAS) improvements, including scheduled geo–satellite updates. **Lead: Department of Transportation (Federal Aviation Administration)**

1.2.3 Continue to coordinate with the State of Alaska to assess existing infrastructure, maintenance requirements, and navigational systems, and to identify opportunities to enhance safety and security including in rural or remote areas. **Lead: Department of Transportation (Federal Aviation Administration)**

Supporting Agencies: Department of Agriculture (Animal and Plant Health Inspection Service), Department of Defense, Department of Homeland Security, and Department of the Interior

1.3 Develop Communication Infrastructure in the Arctic

Objective: Support improvement to the telecommunication infrastructure and the use of new technology to improve communications in the region, including in areas of sparse population to facilitate emergency response.

Next Steps: The following deliverables will be pursued in coordination with the State of Alaska and Tribal communities in support of the National Strategy for the Arctic Region:

1.3.1 Create comprehensive assessment of the current and near–term communications needs of each key user group in Arctic Alaska, including: local communities; science; maritime; oil and gas; aeronautical; surveillance (weather/seismic); search and rescue; and other public/government service by end of 2016. **Lead: Department of Commerce (National Telecommunications and Information Administration)**

1.3.2 Develop a framework that lists and prioritizes opportunities for investments in telecommunications capacity and capability, with a strong emphasis on innovative technologies with Federal, State, Tribal, and international public–private partnerships by the end of 2017 that meets expected communications needs of key user groups in Arctic Alaska. **Lead: Department of Commerce (National Telecommunications and Information Administration)**

Supporting Agencies: Denali Commission, Department of Agriculture, Department of Commerce (National Oceanic and Atmospheric Administration), Department of Defense, Department of Homeland Security (U.S. Coast Guard), Department of the Interior, Department of State, Department of Transportation, Federal Communications Commission, and National Science Foundation

Enhance Arctic Domain Awareness

1.4 Enhance Arctic Domain Awareness

Objective: Increase Arctic domain awareness, with specific emphasis on Arctic maritime domain awareness, by improving appropriate capabilities to collect and exchange information by leveraging partnerships with all entities operating in the Arctic, including Federal, State, local, tribal, research, academia, industry, and international entities.

Next Steps: The following deliverables will be pursued in support of increasing Arctic domain awareness through the leveraging of partnerships:

1.4.1 Work with academia and industry to evaluate the costs and benefits of Unmanned Systems in the Arctic to collect ship tracking, meteorological, oil spill, and hydrographic data. **Lead: Department of Homeland Security (U.S. Coast Guard)**

1.4.2 Evaluate the feasibility of using Unmanned Aircraft Systems (UAS) to improve observational ability in the Arctic in coordination with the Federal Aviation Administration's ongoing efforts to safely integrate UAS into the national airspace system by the end of 2017 as defined in the UAS Comprehensive Plan. **Lead: Department of Homeland Security (U.S. Coast Guard)**

1.4.3 Continue to work with international partners toward enhancing Long Range Identification and Tracking (LRIT) system capability, including for the Arctic region. Publish a report by the end of 2017 which assesses progress on the use of LRIT to support increased Arctic awareness and navigational safety. **Lead: Department of Homeland Security (U.S. Coast Guard)**

1.4.4 Leverage relationships with international partners to improve national capacity to communicate and collect environmental data by satellite. Publish an assessment of current partnerships and capabilities with recommendations by the end of 2016. **Lead: Department of Commerce (National Oceanic and Atmospheric Administration)**

1.4.5 Leverage the Maritime Information Sharing Environment, developed as part of the National Maritime Domain Awareness Architecture, to develop the capability to receive information from diverse sources, analyze the information, and disseminate it to stakeholders. Publish a plan to establish a mechanism for information sharing for the Arctic by the end of 2017. **Lead: Department of Homeland Security (U.S. Coast Guard)**

1.4.6 Develop a timeline to enhance shared situational awareness across Federal, State, local, tribal, industry, non-governmental organizations, and international partners through broadly accessible enterprise information services, standardized information formats, and common data standards by the end of 2016. **Lead: Department of Homeland Security (U.S. Coast Guard)**

1.4.7 Evaluate space-based observation capabilities through participation in scheduled and future pilot programs to evaluate the feasibility of using space-based data and

publish results by the end of 2016. **Lead: Department of Defense (National Geospatial–Intelligence Agency)**

1.4.8 Enhance Automatic Identification System (AIS) capabilities, in alignment with current regulations, to facilitate identification and tracking of maritime assets across the Arctic region by the end of 2018. **Lead: Department of Homeland Security (U.S. Coast Guard)**

1.4.9 Participate in discussions focusing on Arctic information and data requirements through a variety of fora, including the navigation services community, to leverage multi–national and multi–agency capabilities. **Lead: Department of Homeland Security (U.S. Coast Guard)**

1.4.10 Increase understanding of potential threats to national security interests in the U.S. Arctic region and raise awareness of available safeguards through public–private partnerships, industry liaison platforms, and information sharing initiatives with Federal, state, local, and Tribal stakeholders. **Lead: Department of Justice (Federal Bureau of Investigation)**

1.4.11 Collaborate with industry, academia and government entities to identify vulnerable critical infrastructure, sensitive information and technologies, and to lead efforts to prevent loss or exploitation. **Lead: Department of Justice (Federal Bureau of Investigation)**

Supporting Agencies: Department of Commerce (National Oceanic and Atmospheric Administration), Department of Defense, Department of Homeland Security (U.S. Coast Guard), Department of State, Department of Transportation (Federal Aviation Administration), National Aeronautics and Space Administration, and National Maritime Intelligence–Integration Office

Preserve Arctic Region Freedom of the Seas

1.5 Sustain Federal Capability to Conduct Maritime Operations in Ice–Impacted Waters

Objective: Ensure the United States maintains ice–breaking ship capability with sufficient capacity to assure Arctic maritime access, support U.S. interests in the Polar Regions, and facilitate research that advances the fundamental understanding of the Arctic.

Next Steps: Develop long–term plans to sustain Federal capability to physically access the Arctic with sufficient capacity to support U.S. interests in the Arctic. Next steps include:

1.5.1 Finalize operational requirements and accelerate the acquisition production activities of a new U.S. Coast Guard heavy icebreaker to begin production activities in 2020. **Lead: Department of Homeland Security (U.S. Coast Guard)**

1.5.2 Continue planning for construction of additional icebreakers to achieve a capacity for year-round access in the Arctic. **Lead: Department of Homeland Security (U.S. Coast Guard)**

1.5.3 Submit funding plans for the icebreakers through the regular annual budget process. **Lead: Department of Homeland Security (U.S. Coast Guard)**

Supporting Agencies: Department of Commerce (National Oceanic and Atmospheric Administration), Department of Defense, Department of State, Department of Transportation, and National Science Foundation

1.6 Promote International Law and Freedom of the Seas

Objective: The United States will continue to promote freedom of the seas and global mobility of maritime and aviation interests for all nations in accordance with international law. The United States will promote and conduct such activities in the Arctic region as appropriate.

Next Steps: The United States will exercise internationally recognized navigation and overflight rights, including transit passage through international straits, innocent passage through territorial seas, and the conduct of routine operations on, over, and under foreign exclusive economic zones, as reflected in the Law of the Sea Convention. Toward this end, the U.S. Government will, as appropriate:

1.6.1 Conduct routine Arctic maritime exercises, operations, and transits consistent with international law. **Lead: Department of Defense**

1.6.2 Document U.S. diplomatic communications in the *Digest of U.S. Practice in International Law* published by the Department of State. **Lead: Department of State**

1.6.3 Document the Department of Defense report on fiscal year freedom of navigation operations and other related activities conducted by U.S. Armed Forces. **Lead: Department of Defense**

1.6.4 Deliver strategic communications at appropriate opportunities to reflect U.S. objections to unlawful restrictions in the Arctic on the rights, freedoms, and uses of the sea and airspace recognized under international law; and to promote the global mobility of vessels and aircraft throughout the Arctic region consistent with international law. **Lead: Department of State**

Supporting Agencies: Department of Defense, Department of Homeland Security (U.S. Coast Guard), and Department of State

Provide for Future United States Energy Security

1.7 Pursue the Development of Renewable Energy Resources

Objective: Promote development and deployment of available renewable energy resources in the U.S. Arctic region, such as wind, wave, and solar energy, to support local and regional energy security for remote Alaska communities and Federal facilities through collaboration with local and regional stakeholders, leveraging private sector investments, and exploring potential public–private partnerships.

Next Steps: Explore and develop strategies to employ renewable energy resources to support energy development, energy security, and affordable energy reliability requirements of Federal, State, and Tribal entities through the following activities:

1.7.1 Advance development and improvement of energy systems, such as the Department of Energy Alaska Strategic Technical Assistance Response Team (START) Program and the Department of the Interior Remote Community Renewable Energy Partnership, in remote Arctic communities by the end of 2018. **Lead: Department of Energy**

1.7.2 Accelerate efforts by remote Alaskan communities to adopt sustainable energy strategies through execution of *The Remote Alaskan Communities Energy Efficiency Competition* by the end of 2019. **Lead: Department of Energy**

1.7.3 Expand investment in climate solutions for remote Arctic communities through the Clean Energy Solutions for Remote Communities (CESRC) program by the end of 2016. **Lead: White House Office of Science and Technology Policy**

1.7.4 Promote deployment of clean energy and energy efficiency projects for the installation of facility and community–scale clean energy and energy efficiency projects. **Lead: Department of Energy**

1.7.5 Encourage private investment in renewable energy through facilitated workshops with community financing leaders, investors, and lending institutions (such as the 2015 Solarize Alaska Project) to examine technology advancements, financing models and methods to leverage private investment. **Leads: Department of Energy and Department of Agriculture**

1.7.6 Execute a Memorandum of Understanding with the Alaska Energy Authority to enhance new and existing energy systems in remote Alaska Native villages by the end of 2016. **Lead: Department of Energy**

1.7.7 Assist power providers in lowering energy costs for families and individuals within the Arctic region through programs like the competitive National Rural Utilities Service High Energy Cost grants and measuring results by the end of 2020. **Lead: Department of Agriculture**

1.7.8 Support the improvement of electric infrastructure in rural and remote villages in the Arctic Alaska through the issuing of loans and grants (such as the Department of Agriculture Rural Utilities Service High Energy Cost grants) and measuring results. **Leads: Department of Agriculture and Denali Commission**

1.7.9 Facilitate and monitor bulk fuel facilities in the Arctic through grants provided by the Denali Commission in conjunction with the Trans-Alaska Pipeline Liability Fund. **Lead: Denali Commission**

1.7.10 Conduct an analysis to evaluate the potential for net benefits of creating a National Arctic Energy policy to facilitate and advance National security, develop U.S. foreign policy, and meet regional and local energy needs. **Lead: Department of Energy**

Supporting Agencies: Department of Agriculture, Department of Homeland Security, Department of the Interior, and National Science Foundation

1.8 Ensure the Safe and Responsible Development of Non-Renewable Energy Resources

Objective: Ensure safe and responsible exploration and development of onshore and offshore Arctic non-renewable energy resources in an environmentally sound manner.

Next Steps: The development of all energy resources must be coupled with a coordinated responsible approach, domestically and internationally, which will be pursued through the following activities:

1.8.1 Plan and conduct exploratory deep-water baseline benthic assessments. **Lead: Department of the Interior (Bureau of Ocean Energy Management)**

1.8.2 Obtain and evaluate scientific and technical data to support the Targeted Leasing Approach for potential future offshore leasing. **Lead: Department of the Interior (Bureau of Ocean Energy Management)**

1.8.3 Continue to encourage the development and improvement of technology to capture hydrocarbons in response to an oil spill, including the loss of well control. **Lead: Department of the Interior (Bureau of Safety and Environmental Enforcement)**

1.8.4 Evaluate and promote spill prevention technology involved in the drilling process, wellbore integrity, production operations, and final well plugging and abandonment. **Lead: Department of the Interior**

Supporting Agencies: Department of Commerce (National Oceanic and Atmospheric Administration), Department of Energy, Department of the Interior

Line of Effort 3: Strengthen International Cooperation

Pursue Arrangements that Promote Shared Arctic State Prosperity, Protect the Arctic Environment, and Enhance Security

3.2 Enhance Arctic Search and Rescue

Objective: Reduce risk, enhance international cooperation, and increase capacity with respect to Arctic search and rescue by implementing the *Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic*.

Next Steps: Continue to strengthen search and rescue (SAR) preparedness efforts and support international SAR agreements relevant to the Arctic region. Next steps include:

3.2.1 Lead an international Arctic SAR deployment exercise during the U.S. Arctic Council Chairmanship. **Leads: Department of Homeland Security (U.S. Coast Guard), Department of Defense, and Department of State**

3.2.2 Develop a comprehensive understanding of national, state, regional, and, through Arctic Council coordination, international SAR resources potentially available in the region by the end of 2017. **Lead: Department of Homeland Security (U.S. Coast Guard)**

Supporting Agencies: Department of Commerce (National Oceanic and Atmospheric Administration), Department of Defense, Department of State, and Department of Transportation

Accede to the Law of the Sea Convention and Related Affairs

3.9 Accede to the Law of the Sea Convention

Objective: Continue to seek the Senate's advice and consent to accede to the Law of the Sea Convention.

Next Step:

3.9.1 Pursue accession to the Law of the Sea Convention and continue to seek Senate advice and consent to accession as a top Administration priority. **Lead: Department of State**

Supporting Agencies: Department of Commerce (National Oceanic and Atmospheric Administration), Department of Defense, Department of Homeland Security, Department of the Interior, and Department of Transportation

3.11 Resolve Beaufort Sea Maritime Boundary

Objective: Work toward a maritime boundary in the Beaufort Sea that is agreed to by the United States and Canada.

Next Steps: Assuming a willingness of the Canadian Government to pursue maritime boundary negotiations, next steps in this process include:

3.11.1 Undertake careful legal and technical review of issues relating to a potential boundary agreement (on-going). **Lead: Department of State**

3.11.2 Consult with State of Alaska and full range of other partners and stakeholders. **Lead: Department of State**

3.11.3 Undertake bilateral technical work with Canada that would underpin a potential boundary agreement. **Lead: Department of State**

3.11.4 Embark on negotiations with Canada on a potential boundary agreement. **Lead: Department of State**

Supporting Agencies: Department of Commerce (National Oceanic and Atmospheric Administration), and Department of the Interior (U.S. Geological Survey)

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Communication from Public

Name: Nick Castaneda

Date Submitted: 06/22/2019 09:28 AM

Council File No: 19-0688

Comments for Public Posting: My name is Nick Castaneda Jr. I am a member of the ILWU Local 13. I was a casual for 11 1/2 years trying to become a full member holding down multiple part time jobs while getting my hours to make full time. I have finally made it December of last year and have security for my family of 4 soon to be 5. At least I thought I have. We are more alike than you think. You have a family, you are American, and you are human. Family is most important in your life as is mine. You want security for your family as do I. Port Automation brought to APM is a threat to both of us. It is a threat to American jobs to both our families and humans alike. Foreign interest should not be held above AMERICAN labor. Robots should not be held above humans. Stats don't lie. Numbers don't lie. Look at the numbers of efficiency between automation and human labor. It's proof. APM says they want to remain competitive. How is that when you are dropping efficiency just to save on labor? What about the effects on community? The whole Harbor Area will be effected negatively which will effect LA which will effect California. It will become the new Detroit I promise that because no one will patronize businesses or buy home or put money back in the community without jobs. Robots do not vote or pay taxes. What about the 5G to run the machines? Whole countries are denying it because of the unknown effects on the environment and HUMANS. They want to hide behind the Green laws as a reason to automate which is a lie. You can bring in electric equipment that we can operate. What kind of billion dollar business doesn't have answers to simple questions of effects and numbers to prove it. I ask you to please vote against automation not because the ILWU is asking for it but because we ARE ALL HUMANS.

Communication from Public

Name: joseph plancich

Date Submitted: 06/22/2019 09:37 AM

Council File No: 19-0688

Comments for Public Posting: I am writing this as a concerned community member of San Pedro. My family has been part of this town for 70 plus years and worked in many different areas of this town, from Todd's Shipyard, the canneries, seaside ship supply, in the ports as longshoremen, working on the tugboats and countless other jobs. I am here to request that APM Maersk is denied to change pier 400 into a fully automated terminal. As pier 400 is the largest port in LA, and one of the busiest, which continues to break records of containers moved by the hard working laborers of the ILWU. If this terminal is allowed to go fully automated it would eliminate hundreds of ilwu longshore jobs daily. The job loss would be detrimental to the Harbor Area. This is not just about ILWU protecting its job, the bigger picture here is that the surrounding businesses would be greatly impacted. The trickle down effect would be devastating, there are many doctor, dentist, and chiropractic offices whose majority of the patients are insured under the ILWU insurance plan. Then there's the other businesses from restaurants and eateries, clothing and apparel, electronics stores, grocery stores, to name a few will feel the loss of people fleeing the town having to look elsewhere for work to support their families. This is a chance to be a part of something historical, the people have a chance to save the jobs and lives of thousands. With the rapid pace of the advancements being made in technology are the affects of possible radiation and environmental damages from the high powered cellular towers that will be implemented to make these machines function being tested thoroughly. There is so much unknown that it would be irresponsible to rush into this. APM maersk does not care about any consequences, their only goal is to cut labor at any cost to the environment and people. They pretend to say implementing this equipment would be greener but the reality is that the machines can be ordered to allow people to operate them, but they don't care. Thank you for taking the time to read/hear my words and concerns.

Communication from Public

Name: Thresee

Date Submitted: 06/22/2019 10:31 AM

Council File No: 19-0688

Comments for Public Posting: Good morning, I am a tax payer, worker and I have kids. We as working class Americans have to or asking you to stop these companies from automation, no one have really thought about "What's going to happen if everything go automation, who are going to buy the goods, ALL business will be gone, all grocery store everything will disappear even the companies that want to go automation, look at Detroit, and the other several cities that have went abandoned died to automation, no one will have a future, your family no one. Let's talk about clean air, this will not help with clean air and they are not doing it for clean air they are doing it to get rid of the working class. We are humans, they will be creating more health issues than our air, they will be causing cancer and number of health issues with the 5 G they need to operate theses robots. Technology was made to enhance people's jobs not to take away America jobs, crime will be a huge issue, homeless will be out of control as it is now here in Los Angeles. Please let us stop this, let us slow technology down and put it in perspective. We as a people don't want to see America destroyed by greed. Let's go with God words "Man that don't work don't eat" and God words, Am not going to destroy the world man is" so let not let greed destroy our cities, our family, jobs or life, and am talking bout your family as well, if you let these corporations automate you will be destroying all of us, while they sat high up looking down and laughing at us. There are other ways for clean air, and other ways to archive a better way that would benefit everyone. We are the people that is asking to be able to continue feeding our family. PLEASE am asking you to stop these corporates from destroying AMERICA and our jobs and our life. Thank you ??

Communication from Public

Name: Yvonne Cowan

Date Submitted: 06/22/2019 12:53 PM

Council File No: 19-0688

Comments for Public Posting: I am against a foreign company bringing in automated machines to replace port jobs. This will have a severe negative impact on thousands of people and our communities will never recover.

Communication from Public

Name: Ralph J. Melgoza

Date Submitted: 06/22/2019 12:21 PM

Council File No: 19-0688

Comments for Public Posting: Please do not allow a foreign owned company to take away American jobs with automation. Especially with the 5G technology that haas been proven to cause serious health damage to our community not to mention the environmental impact.

Communication from Public

Name: Jennie Curto

Date Submitted: 06/22/2019 11:33 AM

Council File No: 19-0688

Comments for Public Posting: Although, I don't love in the area nor do I own a business there in your city. I am a consumer. I am someone concerned with the ripple effect of jobs lost, businesses closing, and the education of the youth. All due to the loss of employment? Are you saving money by losing money?

Communication from Public

Name: Rita Fernandez

Date Submitted: 06/22/2019 11:53 AM

Council File No: 19-0688

Comments for Public Posting: I writing to you as a concerned tax payer, community member and a parent , I have lived in San Pedro my whole life this is my home I am a 3rd generation Longshoremen and so is my husband. I am concerned what is going to happen to our community and the surrounding community's . As we look around there is homeless epidemic right now in our towns around the the harbor will only get worse if this automation goes through . I worry about the future of my kids and how this going to affect them and there health long term bc we are all being used as ginnie pigs for this 5 g WiFi . There is such a bigger picture here on table and this will create such a impact to all of us and our families and the businesses we support in the harbor area . All these houses and ports of call being renovated who going to be able to afford or put money back into our community's if there is no JOBS bc of automation. I worry what opportunities will my children have all the jobs are being taken away by automation and it's being allowed . It breaks my heart that my kids are worried about what's going to happen to us or jobs my daughter read up on this 5g and the damage it can do to us the paying tax payers and our families. I really hope that you rethink this and how bad it will effect not just us workers but our families the business we put are money to , the housing market and most of the state of California and the city of Los Angeles. It has never been pointed out how many jobs will be lost , how much tax paying dollars will be lost or what will happen to the community's that rely on providing for there families. I hope that you realize I am coming to you pooring my heart out as a parent to here your kids ask do we need to sell our house ? Or we going to be homeless we work to give our families or kids great opportunity's but there disappearing bc automation is taking over and people are allowing that should not have a say so bc it does not effect there households there families or there community's. Please rethink this I am I do t want what to Detroit to happen to us and our STATE or Community's . This will be catastrophic it will destroy our working class and our families. Thank you Rita

Communication from Public

Name: Ernesto Lopez

Date Submitted: 06/22/2019 12:09 AM

Council File No: 19-0688

Comments for Public Posting: PLEASE LOOK INTO THIS VERY HARMFUL PERMIT THAT COULD COST OUR COMMUNITY SO MUCH HARM , I SUGGEST ALL COUNCIL MEMBERS TAKE LOOK ALL THE 11,000 PETITIONS THAT WERE SIGNED BY WORRIED POLITICIANS AND COMMUNITY PEOPLE "HUMANS" , AND TAKE IN CONSIDERATION DIANE I MIDDLETON ANTHONY PIROZZI JR., COMMISSIONERS THAT TOOK THERE TIME DOING HOMEWORK ON THIS HARMFUL PERMIT , APM TERMINAL IS RESQUESTING TO DO ON PROPERTY TAX PAYER LAND ...

Communication from Public

Name: Alexandria Pech

Date Submitted: 06/29/2019 05:19 AM

Council File No: 19-0688

Comments for Public Posting: Automation will destroy communities that employ laborers like my mother who are the sole provider to 3 children and 1 grandchild. Laborers, for example, part of the ILWU 13 local are in panic for the prosperity of their families and surrounding communities. Automation is masking the gentrification and forced unemployment that is to come. Our family of 5 will lose our sole income in the years to come with automation on the horizon.

Communication from Public

Name:

Date Submitted: 06/28/2019 12:58 PM

Council File No: 19-0688

Comments for Public Posting: Automation of the port will exacerbate the already unacceptable levels of pollution in the neighboring harbor communities. Additionally the loss of jobs will damage the already fragile service economy that depends on the patronage of the dock workers and will increase homelessness and blight in Wilmington and San Pedro. Lastly, workers pay taxes but robots do not. The dock workers generate a huge amount of tax revenue through their income tax as well as their consumption. This is the latest in the orchestrated attack on organized labor and the collective bargaining power that has helped build the American middle class and the largest economy in the world. Please help save jobs and communities by saying no to automation of the harbor.

Communication from Public

Name: Lianna Sonethanouvong

Date Submitted: 06/28/2019 01:44 PM

Council File No: 19-0688

Comments for Public Posting: A daughter petitioning for a hardworking middle class man who is strongly against the work of machines replacing human labor. If it weren't for this job, we'd still be living in a studio sized apartment, raising three children in a low rated school system. Because of the job opportunities provided at the ports, we were able to relocate to a middle/upper class school system. Raised by young parents, they provided all they could and for that, I am grateful. The thought of robots replacing human labor is a huge slap in the face for all of the hardworking people who earned to survive "comfortably" for the next phase of their life. Without these jobs, their hard work will be for nothing. Please take a moment to reconsider the value of opportunities given to these workers all of these years, how they've been able to provide for their families, and work hard everyday to provide in a time of hardships throughout our country. Be the solution, not a cause.

Communication from Public

Name: Sheheen Awe

Date Submitted: 06/28/2019 10:37 AM

Council File No: 19-0688

Comments for Public Posting: Hi my name is Sheheen Awe I have live in Los Angeles County for 38 years, I am currently employed as a casual and will be affected by the harbor commission decision on the appeal of the level 1 costal development permit 18-25. Therefore I am writing to express my support is city council vetoing the port of Los Angeles Harbor Commission's decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/Maersk and automation of pier 400. The automation of any industry should never be taken lightly. Out city officials should always take the time to thoroughly weigh pros and cons using all data at there disposal before approving any permits that will eliminate jobs and thereby protect the interests of community and taxpayers they serve . It is my belief that the port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project , which APM/ Maersk knows will have adverse affects on the surrounding communities.

Communication from Public

Name: Sharon Diaz

Date Submitted: 06/28/2019 03:44 AM

Council File No: 19-0688

Comments for Public Posting: My name is Sharon Diaz and I have lived and worked in the Los Angeles area all of my life. Everyone will be affected by the Harbor Commission's decision on the Appeal of the Level 1 Coastal Development Permit 18-25. Therefore I am writing to express my concerns and ask that the City Council Veto the Port of Los Angeles Harbor Commission's decision on the Appeal of the Level 1 Coastal Development Permit 18-25 pertaining to APM/ Maersk and the Automation of Pier 400. Automation of any industry should never be taken lightly. Our city officials should always take the time to thoroughly weigh the pros and cons - using all data at their disposal before approving any permits that will eliminate jobs, and thereby protect the interests of communities and the taxpayers that they serve. It is my belief that the Port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project, which APM/MAERSK knows will have adverse affects on the surrounding communities. Companies should be able to do everything they can to remain competitive, however, not at the expense of working class families and not by causing extensive socio-economic and environmental damage to surrounding communities through the elimination of good paying jobs, and the introduction of technologies for which we have yet to fully identify the long term health effects. There is now a multitude of proven safe technologies readily available that can meet or exceed the standards set forth in the CAAP, with zero or near-zero emissions, proving that labor, productivity, and the environment do not need to be sacrificed in order to save a dollar, and still allowing the ports of Los Angeles and Long Beach to remain competitive. The loss of jobs will be felt throughout surrounding communities and the small businesses that rely on port employees will suffer a loss of revenue, and not to mention the cities and state's loss of tax revenue. Our communities are already plagued with unemployment and major homelessness, and allowing the Harbor Commission's decision to stand will only add to it. The nation's population is constantly growing, but how can we sustain a healthy economy if we lose all labor jobs to automation? How will the average American afford to buy a home, or the very goods that come in through our ports? A high quality of life should not be limited to those who have the means

to become engineers, attorneys, or doctors, therefore a thriving and stable society must maintain a healthy blend of skilled and unskilled workers in every profession. This is why the original Level 1 Coastal Development Permit APM/Maersk should have been denied, and APM/Maersk should have been required to submit extensive socio-economic and environmental impact reports along with filing for a Level 2 Coastal Development Permit and fully disclosing their intentions for choosing to automate over finding a solution that benefits labor, the company, and the local communities. We, your constituents urge you to veto this appeal lest we suffer the same fate as Detroit.

Communication from Public

Name: Guido Lucido

Date Submitted: 06/28/2019 08:54 AM

Council File No: 19-0688

Comments for Public Posting: Hello I am a ILWU Longshoreman Local 13 member and a San Pedro resident. I feel with automation landing on several terminals already there has been a steady decline in man power. Ships going elsewhere to get the job done. With more Automation coming It will hurt our job force. Loosing out on work opportunity. We're building up San Pedro with new Port LA market. New business and restaurants. With brothers and sisters Not working things will not go well for all these upcoming enterprises. I feel we need a economic report and environmental impact report. We are the stake holders we should have a saying and a voice. This is a cry out to future generations for protections of our jobs.

Communication from Public

Name: Longshorman Big E

Date Submitted: 06/28/2019 08:54 AM

Council File No: 19-0688

Comments for Public Posting: Automation will be the downfall of the middle class and working people. It's not right on any level to replace good paying jobs with automated systems. These jobs help the local economy and so much more. There are other options besides removing the human factor from the port. MAN POWERED ZERO EMISSION MACHINERY!! This should be mandatory and it's unbelievable that our officials voted to Eliminate good jobs with automation without ensuring the entire workforce would still remain employed in some capacity. It's disgusting corporate greed. Aren't we supposed to be supporting our citizens in CREATING jobs? Not eliminating jobs ? This affects thousands of people and something needs to be done to change this. The impact this will have on the thousands of families will be on the shoulders of the people that voted this in. We will never stop fighting for what is right.

Communication from Public

Name: regina castillo

Date Submitted: 06/28/2019 09:17 AM

Council File No: 19-0688

Comments for Public Posting: My name is Regina Castillo and I have lived in this community all of my life (40 years). I am currently employed as a casual part time long shore worker and have another full time job. I work hard and pay my taxes and can barely live and support my daughter. I will be affected the harbor commissions decision on the appeal of the level 1 coastal development permit 18-12 . I am writing to express my support for the city council vetoing the port of Los Angeles Harbor commissions decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/ Mearsk and Automation of pier 400. The Automation of any industry should never me taken lightly. Our city officials should always take the time to look over the pros and the cons using all data at their disposal before approving any permits that will affect/ eliminate jobs and to protect the interest of the communities and tax payers that they serve. The permit is vague with out more study on the effect of jobs and lively hoods some many tax payers will be effected by. We are working class families to take pride in the job and have integrity in we do. I understand that Companies need to stay competitive but not at the expense of eliminating jobs. Please help!

Communication from Public

Name: Amanda

Date Submitted: 06/28/2019 09:59 AM

Council File No: 19-0688

Comments for Public Posting: I am a 2nd Generation longshoreman. I am currently a casual trying to build a future. My grandpa worked as a longshoreman and was so proud of me. I am asking on behalf of myself, the past, the present and the future longshoreman to Please deny and or stop any and all automation at the ports. If this goes threw I know not only myself but thousands of others will be homeless or on the verge of it. Not to mention the communities will suffer too with businesses having to close. Just think about it, do you want your or your families or even friends or people you know, jobs to be gone because of robots taking it over. HELL NO your gonna fight. So stand up now and fight for one another.

Communication from Public

Name: Ricardo M Robles

Date Submitted: 06/28/2019 10:00 AM

Council File No: 19-0688

Comments for Public Posting: Mearsk does NOT NEED to automate, Automation of meask will negatively impact everyone across the board, from loss of income to the workers and their families, patronage to all local businesses, reduced taxes to Los Angeles, and even Maersk itself from reduced container capacity regulations to much slower cargo movement productivity, there are so many other negative factors that there is practically no benefit to anyone including maersk, this permit is ill advised and is simply an attack on labor. The vote by the harbor commissioners is wrong and does not protect the rights and interests of the people and land. Do not let the South Bay become another Detroit.

Communication from Public

Name: Deirdre

Date Submitted: 06/28/2019 11:42 AM

Council File No: 19-0688

Comments for Public Posting: My name is Deirdre Brinlee, and I have lived in Carson for 32 years. I am currently employed as a Casual Longshoreman and will be affected by the harbor commission's decision on the appeal of the level 1 coastal development permit 18-25. Therefore I am writing to express my support for city council vetoing the Port of Los Angeles Harbor Commission's decision on the appeal of the level 1 coastal development permit 18-25 pertaining to APM/ Maersk and automation of pier 400. The automation of any industry should never be taken lightly. Our city officials should always take the time to thoroughly weigh pros and cons using all data at their disposal before approving any permits that will eliminate jobs, and thereby protect the interests of communities and the taxpayers that they serve. It is my belief that the port of Los Angeles Harbor Commission failed to do so and made a poorly informed decision based on a purposely vague description of the project, which APM/ MAERSK knows will have adverse affects on the surrounding communities. Companies should be able to do everything they can to remain competitive, however, not at the expense of working class families and not by causing extensive socio-economic and environmental damage to surrounding communities through the elimination of good paying jobs, and the introduction of technologies for which we have yet to fully identify the long term health effects. There is now a multitude of proven safe technologies readily available that can meet or exceed the standards set forth in the CAAP, with zero or near-zero emissions, proving that labor, productivity, and the environment do not need to be sacrificed in order to save a dollar, and still allowing the ports of Los Angeles and Long Beach to remain competitive. The loss of jobs will be felt throughout, but not limited to, surrounding communities and counties. Many small businesses which rely on their longshore clientele's patronage will suffer a loss of revenue, and not to mention the cities and state's loss of tax revenue. Our communities are already plagued with unemployment and homelessness, and allowing the Harbor Commission's decision to stand will only add to it. The nation's population is constantly growing, but how can we sustain a healthy economy if we lose all labor jobs to automation? How will the average American afford to buy a home, or the very goods that come in through our ports? A high quality of life should not

be limited to those who have the means to become engineers, attorneys, or doctors, therefore a thriving and stable society must maintain a healthy blend of skilled and unskilled workers in every profession. This is why the original level 1 Coastal development permit APM/Maersk should have been denied, and APM/Maersk should have been required to submit extensive socio-economic and environmental impact reports along with filing for a level 2 coastal development permit and fully disclosing their intentions for choosing to automate over finding a solution that benefits labor, the company, and the local communities. We, your constituents urge you to veto this appeal lest we suffer the same fate as Detroit.

Communication from Public

Name: Jack Humphreville
Date Submitted: 07/09/2019 03:56 PM
Council File No: 19-0688
Comments for Public Posting:

City Council Vetoes \$1.5 Million of Minor Infrastructure Improvements for Multi-Billion Port Terminal

JACK HUMPHREVILLE

03 JULY 2019



LA WATCHDOG--On Friday, June 28, the Los Angeles City Council, as expected, voted to assert jurisdiction over a recent decision by the Board of Harbor Commissioners that essentially permitted Maersk, the operator of a 484 acre terminal at the Port of Los Angeles, to make minor infrastructure improvements associated with its capital intensive plan to introduce 130 driverless electric cargo handlers that will increase the efficiency of its operations and, at the same time, significantly reduce the greenhouse emissions.

The City Council also vetoed the action of the Board of Harbor Commissions and remanded the matter back to the Board.

The City Council also directed the “*Chief Legislative Analyst, with the assistance of the Mayor, to report on the establishment of a Blue Ribbon Commission that would*

study the issue of automation and future workforce development at the Port of Los Angeles and be tasked with providing recommendations to the Mayor, City Council and Board of Harbor Commissioners on the following:

- *Investment in credible economic development strategies that would meet or exceed the number of jobs that are at risk from automation*
- *Ensuring the Port remains competitive and meets its target of zero emissions by 2035*
- *Protecting and expanding middle-class job opportunities for current and future generations”*

Underlying this action by the City Council is the objection by the politically powerful International Longshore and Warehouse Union to automation and the possible loss of 500 jobs with an annual total payroll of \$50 million.

Unfortunately, there was not a discussion about the merits of the driverless electric cargo handler project, especially given the cut throat nature of the industry that has been plagued by overcapacity, low freight rates, and the need for greater efficiencies because our container charges are double those of competing ports.

Despite the Council’s veto, Maersk has indicated that it will proceed with the driverless electric cargo handler project without the minor infrastructure improvements (electric charging stations, the wi-fi antenna poles, and related equipment) because it is permissible under its lease with the Port and its labor agreement with the ILWU.

It is important that the Blue-Ribbon Commission be an independent, well financed body where the members have a working knowledge of the Port and the shipping and logistics industry, especially given the highly competitive nature of this capital-intensive business.

As a first step, the Commission must get an understanding of why the Port staff and its politically appointed Board approved this \$1.5 million infrastructure project and how it relates to the capital-intensive plan to utilize driverless electric cargo handlers in the multi-billion-dollar Maersk terminal.

The Commission must also understand why efficiencies are important, especially as it relates to unloading and unloading of megaships that cost hundreds of million dollars, recognizing that they are not producing revenue while they are in port.

We all need to realize that this is a highly competitive business now that West Coast ports in Canada are pursuing the ports' customers as our ports on the Gulf and East coasts now that the Panama Canal can accommodate megaships.

Importantly, the Commission needs to review the prospects of the two San Pedro ports and their impact on the Southern California economy, especially if we lose market share because we are a high cost, inefficient port.

While the ILWU is protesting the impact of technology and automation by holding a \$1.5 million project hostage, the union has survived massive disruptions in the past. For example, the introduction of containers resulted in massive changes, but it also allowed the expansion of international trade whereby LA and Long Beach became the leading ports in the country. There have been other disruptions that have increased productivity in the ports, whether it be from lasers, GPS, or digitization of the supply chain. At the same time, employment at the Port is at record levels.

The key to the prosperity of the ILWU members, the shipping industry, the terminal operators, and the Southern California economy is to work together to maintain or grow market share. Otherwise, competitors will pick our pockets.

<https://www.citywatchla.com/index.php/la-watchdog/17995-city-council-vetoes-1-5-million-of-minor-infrastructure-improvements-for-multi-billion-port-terminal>