DATE PREPARED:	March 3, 2020	WITNESS:	Ivan Carlson
DOCKET:	TP-190976	RESPONDER:	Ivan Carlson
REQUESTER:			Puget Sound Pilots

DATA REQUEST NO. 84: Regarding Exh. IC-1T, p. 3 line 1, please provide documentation of industry's "historic insistence upon use of off-duty pilots."

RESPONSE TO DATA REQUEST NO. 84:

Objection. Providing a comprehensive response to this request would require a thorough review of numerous historic records, which would consume an even larger amount of time than responding to these voluminous, repetitive and burdensome requests is already consuming. Such a comprehensive review is not justified.

Subject to and without waiving the foregoing objections, PSP responds as follows:

There are a number of sources demonstrating industry's historic reliance on use of off-duty pilots. The following supplies documentation of industry's historic insistence upon use of off-duty pilots:

By letter dated May 4, 1995, a representative of ARCO Marine, Inc. wrote to the following to the Board of Pilotage Commissioners:

> The establishment of any format to gauge a pilot level is partially dependent on the association's management having the flexibility to provide service in times of high volume movements. Essentially, this is accomplished by calling back pilots not on assigned duty and compensating them with time off in the future. Comp day accumulation should be seen as, and rewarded as, an efficiency within the pilot organization. It allows the association to operate with an adequate level of pilots while being able to meet the irregular schedule of vessel arrivals. Currently, comp days are carried in the notes to the financial statements as an unfunded liability. We believe that comp days should be fully funded either in the current year or retrospectively in the following year. Individual pilots should be able to receive compensation exclusive of the target net income, or bank the days and the compensation go to a funding account for future use. We understand that this to be an issue to which the pilots should agree internally, and see this as a major item for future discussion. Therefore, we support the current method of banking comp days for future use.

See May 4, 1995 letter, p. 2, with file label 'PMSA DR 84, ARCO letter 1995.pdf," and commencing on bates number PSP_004261.

Based upon the agreement of industry representatives like ARCO and the Puget Sound Steamship Operators Association, PSP has long been staffed below the level of pilots needed to minimize use of callbacks in order to increase efficiency during off-peak season. However, even when increased rest periods and other factors have resulted in decreased pilot availability, PMSA has consistently resisted any increase in the number of pilots, while obviously understanding the result would be continued reliance on the callback system.

As an example of that acknowledgement, in its 2006 tariff submission to the BPC, PMSA called the use of callbacks a win/win and later in the same document advocated for funding 1.2 pilots burning callback days in rates:

> **Comp Day Relationship to Pilot Staffing**
> The use of comp days provides an opportunity to staff below peak demand if done reasonably. It makes good sense and provides a "win/win" situation. When looking at the dollars involved, we believe that comp day incentives are already substantial. However, we are looking at ways that the comp day system could be restructured to potentially move the incentives from the distant future to the immediate present. At the same time, we anticipate that the Commission will be looking more deeply into workload and comp days when determining methodologies for setting pilot levels.

- This proposal is designed to fund 52 pilots plus a president plus 1.2 pilots worth of comp time. We chose the number 53 based on information presented by the TEC in past Board meetings as the most likely number of PSP pilots working during the tariff year. Now that the MOU has expired and the Board is setting the

See PMSA's Tariff Submission, p. 16 and produced with file label "DR 84 - PMSA Response to BOPC 2006 Tariff.pdf" and bates numbers commencing on PSP_004294.
PMSA also suggested that callbacks be made mandatory to avoid a need for additional pilots in response to new fatigue management policies considered by the Board of Pilotage Commissioners in 2018. In a letter dated August 15, 2018, Mike Moore of PMSA wrote the following, arguing that pilots should be required to accept callback assignments:

- The two watch system is not a good fit for assignments that are seasonal and that fluctuate from day to day without some level of mandatory call backs per pilot. Lifestyle pilots refusing to take call backs diminishes the call back relief valve which in part serves to address the inefficiencies of a rigid two watch system particularly when considering the seasonality issues. Again, shouldn't the BOPC insert some policy on this regard since the Pilotage Act calls for efficiency?

See PMSA letter dated August 15, 2018, p. 2, produced with file label "PMSA DR 84 PMSA Fatigue Management Comment Memo 081518.pdf" and commencing on bates number PSP_004291.

Finally, when PSP sought to increase the number of pilots in 2019, PMSA representative Mike Moore argued in PMSA's submission to the BPC that certain pilots who preferred not to work as many callbacks as other pilots (who were unfortunately referred to as "lifestyle pilots") should be expected to take more callback assignments rather than increase the number of pilots:

> **"Lifestyle Pilots" – No Call Backs?**
>
> In the past year a new term has emerged: a "lifestyle pilot." Apparently, a "lifestyle pilot" doesn't want to or chooses not to take call backs. The inefficiencies of the PSP two-watch system does not require everyone on duty to be available for dispatch. This new dynamic is a troublesome issue. It is imperative that the BPC addresses the "lifestyle pilots" phenomenon within the context of setting of the number of pilot licenses.

See letter dated May 6, 2019 to the Board of Pilotage Commissioners, produced with file label "PMSA DR 84 - PMSA Submission 2019.pdf" and bates numbers commencing on PSP_004266.

Mr. Moore's arguments to the BPC regarding the number of pilots similarly focused on how troubled he was that certain pilots would not work as many callbacks, which he suggested meant that pilots would not be able to work the Target Assignment Level of 145 assignments per pilot. Obviously this suggested that pilots working as many assignments as 145 had long been working callback assignments as a component of their target level. Mr. Moore went on to suggest that there should be a minimum mandatory number of callbacks each pilot should be required to work. Specifically, Mr. Moore argued the following (roughly transcribed):

> We don't know the comp day reality of how many, I never even heard that term lifestyle pilot if that has all of a sudden grown to 20 pilots not gonna take a comp day that means by definition there are going to be less than 145 and everyone else is gonna be more than 145 cause were not doing any callbacks we don't have that data and part of the process here that's problematic is that you have all the data and we get a lot of data these spreadsheets are great, but you still have all the data. So if have questions like how many lifestyle pilots refuse all callbacks. We don't have that you have that. That's, that's in a process and you have your attorney here but in a process where we don't have a means by discovery to say here's some questions you gotta provide this data and have somebody adjudicate whether or not that's a relevant piece of information. We don't have it, you know, if you don't provide it we don't have it and is that a problem, should, should there be a mandatory number of callbacks for all pilots or should some pilots do 60 callback and other pilots do 7 or whatever you high was 120, 120 um 120 versus 9 is what I think I was told. That's a pretty big variance.

See the file produced with file label PMSA DR 84 –Audio 2-21-19 part 2 of 4.WMA, and bates number PSP_004265.

ARCO Marine, Inc.
300 Oceangate
Long Beach, California 90802-4341
Telephone 310 590 4565
FAX 310 590 4612

Grahame Chase
Manager
Port Services

May 4, 1995

Mr. Larry L. Vognild, Chair
Board of Pilotage Commisioners
Colman Dock - Pier52
Seattle, Washington 98104-1487

Dear Mr. Vognild:

As an employee of ARCO Marine, Inc. I represent a company with significant interest in the upcoming tariff hearings. AMI is not a member of the PSSOA. However, we are the largest customer, dollar wise, of the Puget Sound Pilots. Either myself, or my co-worker Jeff Shaw, have attended a majority of the meetings between the pilots and PSSOA. Unfortunately, we find ourselves in a position that coincides with neither party.

Historically, our working relationship with the pilots has been very good. The level of service and oversight provided by the pilots and its management has always met our expectations. We hope to continue that relationship while assisting in the development of a working agreement that will be fair to all constituents.

We believe that a streamlining of the contract is imperative. This will allow focus on the important issues and should simplify future tariff negotiations. Our goal is to arrive at a clear and concise understanding of the agreement, its assumptions, its data, its projections, and interpretations. Essentially, we would like to see a tariff formula without ambiguity and with a clearly documented structure that will facilitate productive negotiations.

In this light, we believe there are 3 major categories that need to be discussed: compensation, expenses, and capital outlays. The latter should be easily identified and accounted for, and we believe the least contentious. Compensation is generally the most volatile of the issues as it includes the requirement to define the number of pilots needed. We believe that the assignment-level method of determining numbers of pilots is too complex. Currently, each adjustment applied to the base assignment level is open to interpretation on both sides and detracts from the real issue of settling an equitable compensation structure. In our opinion, that issue is one of bridge hours worked per pilot. Negotiating a level of bridge hours will clearly define what industry is actually paying for and the service level each pilot is providing. It eliminates the need to define

and negotiate all the adjustments to a set assignment level, and allows control of these issues to lie where it should -- with the management of the pilot association.

We believe the current level of approximately 740 bridge hours worked per pilot [arrived at by multiplying: Assignments per Pilot (149.36) x Bridge Time per Assignment (4.95 hours)], to be a solid base from which to start. The only adjustment to that, a permanent one, would be for industry and the pilots to split training time set at one week. Essentially, this would reduce time on the bridge to 722 hours. [3.5 days = 84 hrs/2 = 42 hrs, 2090 (current assignment level) - 42 hrs = 2048 hrs 2048/2090 =.9757 x 740 = 722 bridge hours.] Taking the projected number of movements for next year and multiplying this figure by the average bridge time it takes for a movement, quite simply, gives a total of the number of hours needed to satisfy the required service level. This figure generates the need for 53 pilots -- 7,752 movements x 4.95hrs (average bridge hours per move) = 38,372 bridge hrs/ 722 bridge hrs per pilot = 53.15 pilots + 1 (President) = 54 pilots.

With the removal of the Blair Bridge, it is anticipated that the assignment levels will drop by a maximum of 450 movements. This translates into a need for 3 fewer pilots. However, the projection of ship movements is anything other than an exact science. It is of no benefit to either the industry or the Puget Sound Pilots to have a pilot level that exceeds the required service level. However, it is paramount that industry receives full service by rested pilots at all times. We believe the addition of 1 more pilot to the reduced level of 51 pilots will achieve this. Therefore we support a total pilot level of 52 pilots and are prepared to review this on an on-going basis.

With the pilots working a 2 week on and 2 week off schedule, and a vacation level of 2 weeks per year, each pilot should be available 4,200 hrs per year. Obviously, the pilots need a level of rest that provides for safe and alert operations at all times. If the total annual hours (including training) for a Puget Sound pilot continues at 2,090 hrs/year, the rest period equating to approximately 50% of the work time should ensure well rested and alert pilots.

The establishment of any format to gauge a pilot level is partially dependent on the association's management having the flexibility to provide service in times of high volume movements. Essentially, this is accomplished by calling back pilots not on assigned duty and compensating them with time off in the future. Comp day accumulation should be seen as, and rewarded as, an efficiency within the pilot organization. It allows the association to operate with an adequate level of pilots while being able to meet the irregular schedule of vessel arrivals. Currently, comp days are carried in the notes to the financial statements as an unfunded liability. We believe that comp days should be fully funded either in the current year or retrospectively in the following year. Individual pilots should be able to receive compensation exclusive of the target net income, or bank the days and the compensation go to a funding account for future use. We understand that this to be an issue to which the pilots should agree internally, and see this as a major item for future discussion. Therefore, we support the current method of banking comp days for future use.

We believe the compensation currently provided to the Puget Sound Pilots to be below a level consistent with the industry average. Having read numerous reports on Pilot compensation (the names of these reports can be provided) we feel the level should rise to meet this average. Therefore we support a compensation level in the mid-range of the spread between $155,000 and $160,000. This will ensure that the association will attract and retain fully qualified personnel. It will also provide equitable compensation when compared to other organizations that provide the same type and level of service.

Expenses

Seattle Station:

The difference between the PSSOA and the Puget Sound Pilots' projected operating expense for the Seattle station equates to $68,166. This is an additional 4.26% to the PSSOA projection. The first line item that accounts for the majority of this difference is dues of $60,435.00 payable to various associations, maritime groups, and business organizations. In the past, the board approval has been far below this level, and I see no reason to change the comparative level of funding that the board has seen fit to approve. Therefore we cannot support the pilots in their request for this funding level.

The second line item refers to travel and entertainment expense. We do not consider the Puget Sound Pilots to be an extravagant pilot organization. The requested sum represents approximately 1.9% of the expenses when adjusted for the first item. We do not believe this to be excessive, and support the pilots request for this amount.

Port Angeles Station:

The difference between the 2 projected totals amounts to $33,000, an increase over the PSSOA projection of approximately 11.9%. This is accounted for in a single line item referring to the repositioning of pilots. In discussions with the pilots, we support the contention that an increase in funding for this item will allow for greater flexibility in repositioning. This should ensure all movements are carried out by well-rested pilots. With the unpredictability of vessel arrivals and a potential for high volumes of movement in a short period, we feel it is appropriate for both parties to meet half-way. Therefore, we support a level of funding of $119,000, and encourage both parties to monitor these expenses closely to provide a clearer understanding for future negotiations.

The pilot boat projections differ by $7,814, or .81% over the projection offered by the PSSOA. We have no comment on the difference and would hope both parties could come to a quick agreement on this small difference.

Individual Expenses – per pilot.

We see no reason to disallow the increase associated with higher state license fees. When factored out, the level is consistent – adjusted to the CPI -- with the 1994 board approved level. Therefore we find these expenses to be appropriate. Additionally, we find funding for transportation to be consistent with prior years and a possible need for higher levels of repositioning in 1995. We support the pilots request for this funding level.

In summation: we believe that each tariff negotiation should bring the pilots and industry closer to a clearer understanding and agreement on all issues. However, we realize that all issues cannot be resolved at once. This year, we would hope to see consensus on the vessel traffic formula, and the change from a set assignment level per pilot to "bridge hours to be worked" per pilot. Progressively, we would hope to see a radical simplification of the tariff formula that will allow all parties to fully understand the process and the data elements connected to it. Quite honestly, we have been impressed by the pilots' willingness to entertain new ideas and ways for arriving at an equitable funding level. While there are still issues that need to be discussed in following negotiations, we fully believe that the pilots will come to the table in good faith. Additionally, we believe it will be beneficial for all parties to arrive at a jointly developed process. One that allows for reduction in time and effort in preparation of these tariff negotiations.

Your truly,

Grahame Chase

Grahame Chase

PMSA
PACIFIC MERCHANT SHIPPING ASSOCIATION

August 15, 2018

TO: BOPC Chair Tonn and Fatigue Management Committee Chair Morrell

FR: Mike Moore, VP, PMSA

RE: Proposed Revisions to Pilot Mandatory Rest RCW and Other Recommendations of the Fatigue Management Committee

PMSA respectfully submits these comments regarding discussions and recommendations of the Fatigue Management Committee (FMC).

Nobody appreciates the need for, and the consequences of, safe navigation and maritime transportation more than vessel owners and operators themselves. PMSA's member companies have an exemplary record of safety and continue to improve their own operating environments to accommodate the newest technology and the latest in good management and best practices. With respect to pilotage, we consistently support new investments in pilot training and the use and integration of new pilot technology up and down the West Coast.

We also highly value pilot rest and fatigue standards, training, and management. For instance, the California state Board of Pilot Commissioners recently received a study on pilot fatigue which was supported by PMSA. The study was required by a bill in the state Legislature which was sponsored by PMSA, and PMSA lobbied for an appropriation for the pilot fatigue study to be paid for by surcharge dollars from PMSA members.

PMSA supports both Washington's existing fatigue management rules, which are already in place and have been a model for recently adopted provisions in California, and a process to update RCW and WAC provisions as appropriate to improve pilot safety and fatigue management while also improving dispatch efficiency and accountability. We urge the BOPC to include a comprehensive review of dispatch and watchstanding options to better match pilots to assignments.

We continue to urge caution and advise against rushing into a "solution" driven solely by the current agency-sponsored legislation deadline for 2019 before our state Board of Pilotage Commissioners has completed a thorough analysis of all options for achieving the multiple fatigue management improvements in pilotage in the recommendations made by Dr. Czeisler who for example is no fan of the two weeks on, two weeks off duty rotation.

We understand the current focus is on mandatory rest. However, such discussions eventually get into dispatch, watchstanding, number of pilots, delays, call backs, and so on. We have raised questions and communicated at least some of our concerns and observations with the Fatigue Management Committee including the following:

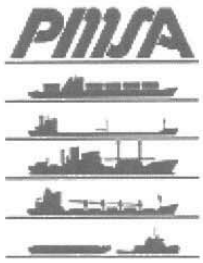
- PSP reported 300 assignments would be impacted by a 9 hour rest period or 500 with a 10 hour rest period. There was no analysis or discussion of the average number of minutes involved? Was it evenly distributed between 1 minute and 59 minutes?
- The PSP rest period analysis chart includes a column that equates number of pilots, number of assignments, and 9 or 10 or 11 or 12 hour rest rules. It specifies how many pilots would be required to not violate the rest rules at the various levels. I was unable to find the logic of this correlation as detailed below:
    - If you take 300 instances for the 9 hour rule, then that could be 300 total minutes per year or up to 300 hours per year.
    - If a pilot is on the bridge just over 700 hours plus transportation to/from (non-bridge time plus non-resting travel time) then you are looking at 1100 to 1300 hours per year per pilot; 50 pilots would then result in a total of about 60,000 hours per year so the annual impact of waiting collectively 300 minutes to 300 hours does not equal adding 2 plus pilots.
    - In addition, there was no listed causes of the 300 minutes to 300 hours involved; call back refusal, vacation taking, medical, and so on and without knowing all the causes, one can't identify all the solutions.
- How did call backs fit into the PSP rest period impact analysis? Was there an assumption of no call backs accepted? If call backs fully used then wouldn't all of these assignments have been completed by a rested pilot? How did the analysis incorporate "lifestyle pilots" refusing to take call backs? How many "lifestyle pilots" are there?
- Duty rotation plus vacations produces **28 weeks out of 52** when pilots are not on duty and 24 weeks on duty available for assignments if properly rested – so wouldn't vacation taking create fewer pilots on duty and thus feed into to the number of assignments impacted by a 9 hour or 10 hour rest rule/policy?
- Should BOPC oversight duties require the Board to develop policies covering watchstanding, dispatch, duty days, call backs and vacations or will that continue to be completely up to PSP?
- A BOPC set TAL workload of 145 assignments per year results in **220 days of non-piloting per year** – shouldn't there be discussion on how to better fit 145 days of piloting into the 365 days/year to better address dynamics like the seasonal fluctuations of pilot demand? Monthly pilot assignments trends clearly demonstrate the seasonality involved.
- The two watch system is not a good fit for assignments that are seasonal and that fluctuate from day to day without some level of mandatory call backs per pilot. Lifestyle pilots refusing to take call backs diminishes the call back relief valve which in part serves to address the inefficiencies of a rigid two watch system particularly when considering the seasonality issues. Again, shouldn't the BOPC insert some policy on this regard since the Pilotage Act calls for efficiency?
- Cruise months average per pilot assignment workload is more than 12 and non-cruise months is less than 12 - the data is clear and this is expected.
- Pilot Shortage? In June 2018, there were fewer assignments per pilot than June 2015 (16 vs 15.4 on average). In June 2016 the average pilot workload was essentially equal to June 2018. However, recent statements assert a great pilot shortage now with elevated fatigue risk yet the workload is less than before; what is different?

- Past statements indicated that vacations were limited during cruise months but the numbers seem to indicate more vacations are taken in summer months; an assessment of the data will reveal the facts – can that data be summarized?
- Lifestyle piloting is a relatively new term; how many are there and are there any mandatory call back procedures or is it all voluntary? If not, how does workload average out to 145 per pilot each year (or 220 days of non-piloting); this seems to be a fixable issue via watchstanding/dispatch procedural changes.

Data Transparency: Given all of the uncertainties involved, one additional issue that should be included in any proposed package to address potential pilot fatigue would be to address the lack of specific date, time and format of reports to the BOPC. Such reports are necessary to ensure proper enforcement and oversight of any new RCW or WAC against individual pilots who violate the standards. The current reports are not conducive to rest hour oversight now and if the new rules are to be truly effective this is the time to fix that as well. A commitment to discuss this is a good start but falls short of a requirement to ensure sufficient data and transparency to conduct oversight. This should be done concurrently with any other updates to the current fatigue management framework but it remains unresolved.

As such, no one on the Board, at PSP, or in industry can possibly know all the potential impacts on fatigue, and impact causes beyond the rest period (regarding dispatch, vacations, lifestyle pilots, etc.), or what all the reasonable exceptions might need to be (though harbor shifts and most cancelations fit that category as discussed), that could be associated with proposed changes.

Therefore, at this time, PMSA cannot take any position supporting or opposing the Committee recommendation, except to say that action at this time is premature. We respectfully reserve the right to further assess this RCW draft language and future potential related WAC amendments.



TO: WASHINGTON STATE BOARD OF PILOTAGE COMMISSIONERS

The Pacific Merchant Shipping Association (formerly PSSOA) and Polar Tankers have worked with the Puget Sound Pilots (PSP) under a Memorandum of Understanding (MOU) for the past ten years to provide joint tariff proposals to the Commission. We have all enjoyed the benefits of the MOU and the self-correcting formula. Unfortunately, PSP terminated the MOU and instead opted to seek **extraordinary** and we believe **unreasonable increases** in the tariff, TNI and personal allowances that will result in huge increases in income as well as compensatory day and retirement obligation.[1]

We have spent considerable time reviewing the issues, evaluating pilot assignments, workloads, compensation, and benefits as well as conducting comparisons with relevant ports both directly and via our membership. Those we represent were fully apprised of our findings and of the magnitude of the PSP proposals. Ultimately we were faced with two choices; agree to the increases sought by PSP or make our case to the Board of Pilotage Commissioners for the setting of fair and reasonable compensation and tariff levels. We have confidence that the Board will focus on ensuring safe, efficient, proper and competent pilot service with all appropriate consideration for the economic well being and competitiveness of our industry.

Our recommendation this year is based in part on the self-adjusting formula found in the now expired MOU. A brief discussion of the MOU's successes and history are highlighted below:

- PSP co-created the formula approach in large part to obtain protection against downturns in activity.
- PSP signed an agreement formalizing this approach not once but twice – their commitment to this approach highlights the value PSP placed on protecting net income against downturns.
- Tariff adjustments based on the formula and MOU have appropriately provided for operating expenses, capital expenditures as well as fair and reasonable increases in compensation.

[1] PSP Letter Dated December 1, 2005 terminated the MOU at the expiration of the term

- PSP helped set and agreed to both the Target Net Income amount AND the rate of increase. There were no surprises in TNI amounts from year to year for either party as increases were based on CPI plus 1% over the past five years.
- PMSA/POLAR received no complaints from PSP until last year when the San Francisco pilot compensation spike was announced (SF has no downside protection).
- MOU/Formula based **Individual Pilot Net Income outperformed TNI** by 9.33% or $175,326 over the life of the formula and **exceeded TNI nine out of ten years**.
- Individual Pilot Net Income reported by PSP for each pilot was a total of $85,330 **over** Target Net Income over the last three years.
- Ironically, it is these last three years where PSP believes the formula based approach failed them. We disagree.

Last year industry made a **good faith proposal** to adjust the tariff 6.79% **above** the formula based recommendation. The offer was approved and implemented. Our offer will produce an estimated **$1,400,000 of additional income** or $27,500 for each pilot during the July 1, 2005 to June 30, 2006 tariff year. This good faith action appears to have had no impact on negotiations or compromise as PSP continues to seek extraordinary increases.

In furtherance of our good faith effort last year, **we request the Board adopt the following amendments to the general tariff and associated charges**:

- Increase all categories of the general tariff by 3.46% except the "Delay of Sailing" fee and transportation.
- Increase the "Delay of Sailing" fee by first doubling the current fee and then increasing the hourly rate by 15% for each hour of delay after the first hour. Thus, the first hour would be charged at $236, the second at $271, etc. All other hourly charges would increase by the 3.46% described above.
- Increase Target Net Income by 5% to make it $225,398. (3% for inflation; 1% sweetener; 1% to capture the "Delay of Sailing" increase so the formula does not correct downward next year.)
- This proposal is designed to fund 52 pilots plus a president plus 1.2 pilots worth of comp time. We chose the number 53 based on information presented by the TEC in past Board meetings as the most likely number of PSP pilots working during the tariff year. Now that the MOU has expired and the Board is setting the number of pilots, we feel that using the actual number of pilots in the self-correcting formula is the most appropriate methodology. (Please note that PSP used the manning formula in the now expired MOU to generate the 58 pilots they used when they ran their version of the self-correcting formula. This would only

be appropriate if the MOU were continued and the self-correcting feature allowed to work the following year.)

- Individual Business Expense would be set at $28,621. Normally the IBE would be set by increasing the previous year's IBE by CPI. This year, in addition to CPI, we are recommending that the IBE also be increased by $3,960 in order to offset increased medical insurance costs.

Please find attached further information to help you make your decision regarding tariffs on May 11. If you have any questions regarding this proposal or the information contained within, please don't hesitate to contact PMSA or Polar Tankers representatives.

Respectfully yours,

M R Moore

Michael R. Moore
On behalf of PMSA/Polar Tankers

Table of Contents

PUGET SOUND "SELF ADJUSTING TARIFF FORMULA"
2006 Tariff Year (July 1, 2006 to June 30, 2007)

			PMSA/POLAR	PSP
A	Target Net Income for the preceding year		$214,665	Same
MINUS:				
B	Total Pilotage Revenue		$20,673,996	Same
MINUS:				
C	Operating Expenses		$6,615,867	Same
	Seattle (includes GH retirement)	$2,211,757		
	Port Angels	$592,402		
	Pilot Boats	$2,495,872		
	PSP Retirement	$1,315,836		
D	Other Expenses		**$2,354,750**	**$2,056,109**
	Travel Reimbursement	$837,837		
	Individual Business Expense Allowance			
	Industry: 2005 level + CPI $28,621 * 53 pilots = $1,516,913			
	PSP: 2005 level $23,943 X 50.9 pilots = $1,218,272 * *Additional IBE allowance is listed under Variable H. Total IBE allowance in PSP's formula = $2,061,418 or $38,479.75 IBE/pilot X 53.57 pilots			
PLUS:				
E	Excluded Expenses		$132,579	Same
	American Pilots Association dues	$79,300		
	Master, Mates & Pilots dues	$15,675		
	Lobbyist	$37,604		
MINUS:				
F	Recapture Amounts		$0	Same
G	Projected change in State fees and/or taxes		$0	Same
H	Projected Major Capital or Extraordinary Expenses		**$138,529**	**$981,675**
	PSP & Industry: Projected Capital Expense	$93,529 (net result)		
	PSP only: Extraordinary – IBE	**$843,146**		
	PSP & Industry: Extraordinary – Fuel costs	$45,000		
DIVIDED BY:				
I	Number of active Puget Sound Pilot members		**53**	**58**
	Industry: Actual # of pilots---50 current + 6 new – 3 retirees			
	PSP: Used "manning formula" in expired MOU. The additional 5			
	"ghost" pilots will add 8.15% to PSP's tariff change.			
PLUS				
J	Number of projected comp days as a "pilot equivalent" (Per PSP)		1.2	1.0
DIVIDED BY:				
A	Target Net Income for Previous Year		$214,665	Same
SUBTOTAL				**11.94%**
PLUS:				
K	Consumer Price Index for the preceding calendar year		3.00%	Same
L	Special Target Net Income Adjustment		1.00%	Same
M	TARIFF ADJUSTMENT PRIOR TO "SAILING DELAY" FEE INCREASE:		**3.46%**	**15.94%**

(See cover letter for "Sailing Delay" fee increase details.)

PUGET SOUND "SELF ADJUSTING TARIFF FORMULA"

The concept that Puget Sound pilotage tariffs could be set using a "self adjusting tariff formula" was first introduced during negotiations for the 1996 tariff hearing by Jimm Sweet, business manager for the Puget Sound Pilots at that time.

What does the term "self-adjusting tariff formula" mean?
It is a mechanism whereby recommendations for pilotage rates are set automatically, on an annual basis, using an agreed-to formula.

How does the formula fit into the tariff setting process?
The joint industry/pilot tariff recommendation that is submitted to the Washington State Board of Pilotage Commissioners each year has been governed by a Memorandum of Understanding between Polar Tankers, Inc. (formerly Arco), Puget Sound Pilots, and PMSA (formerly PSSOA) that was originally agreed to in 1996 and later re-negotiated in 2001.

The Board in turn is authorized by RCW 88.16.035 (4) to annually fix pilotage tariffs for the Puget Sound pilotage district. Please note that the Board is not bound by law or regulation to accept the joint tariff recommendations put forward by the shipping industry and the Puget Sound Pilots, but has seen fit to do so since the first Agreement was reached in 1996.

A brief description of how the self-adjusting tariff formula works.
The formula is a "backward looking" mechanism that compares the Target Net Income (TNI) for the previous year against the actual net income for the previous year, i.e. (TNI – Actual income)/TNI . The resulting difference expressed as a percentage, whether positive or negative, is then added to the change in the Consumer Price Index (CPI) for the previous year. This sum becomes the recommended tariff change for the current year. In its simplest and original form, this can be expressed by the formula…

(TNI – Actual net income)/TNI + CPI = Tariff adjustment (%)

In plain English, this means that if the pilots' income the previous year failed to meet the target (the TNI), then the tariff is adjusted upward. Conversely, if the pilots' income greatly exceeded the target, then the tariff is adjusted downward in those cases where the downward correction is greater than CPI. The CPI adjustment is included to compensate the pilots for inflation.

The Target Net Income (TNI) was initially set in 1996 by negotiations between industry and the pilots. In the 1996 to 2000 MOU, the TNI was then adjusted annually by adding a CPI correction to it to compensate for inflation. In the subsequent 2001 to 2005 MOU, TNI was calculated each year by adding a CPI adjustment plus a 1.0% "sweetener" to the previous year's TNI. (Example: $TNI_{2002} = TNI_{2001} + CPI + 1\%$)

Please note that the actual formula used to generate the Puget Sound tariff recommendations is considerably more complicated then that expressed above due to the necessity of calculating "actual net income" for the pilots. In calculating "actual net income", a number of variables are considered including gross revenue, allowed expenses, excluded expenses, number of pilots, projected major capital expenditures for the upcoming year, etc. For almost all variables, the numbers used in the formula are derived from the audited financial statements of the Puget Sound Pilots.

The self correcting tariff formula as seen in the 2001 to 2006 MOU:

$$\frac{A - \left(\frac{B - (C + D) + E - (F + G + H)}{(I + J)} \right)}{A} + K + L = \text{Tariff adjustment}$$

What percentage has the rate changed each year since the self-adjusting tariff was introduced?

A summary of the rate changes since 1996 is as follows:

Year	Tariff Adjustment
1996	+7.86%
1997	+1.94%
1998	-3.03%
1999	+5.56%
2000	-2.85%
2001	+1.32%
2002	+13.19%
2003	-2.20%
2004	-16.42%
2005	+5.00% (Also included a one time "dampening factor of +6.79%)

END

PUGET SOUND PILOT TARIFF---PERFORMANCE DATA

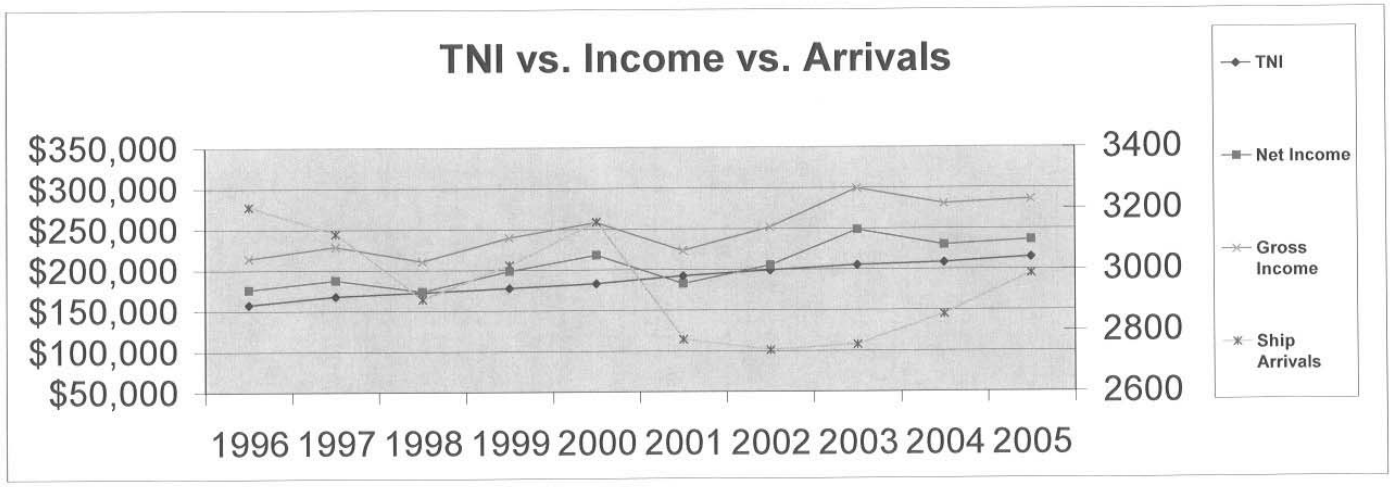
(Net income does NOT Include Individual Exp Allowance; Travel Allowance or B.C. Surcharge)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Vessel Arrivals ≥300 GT	3207	3118	2904	3016	3157	2771	2736	2754	2853	2987
# pilotage assignments	8359	8118	7145	7746	8254	7288	7241	7338	7604	8260
Tariff change	7.86%	1.94%	-3.03%	5.56%	-2.85%	1.32%	13.19%	-2.20%	-16.42%	5.00%
CPI change (previous year)	3.00%	3.40%	2.90%	2.90%	3.00%	4.10%	2.50%	2.10%	0.50%	2.10%
Ind Business Exp Allowance	$14,870	$15,376	$15,822	$16,281	$16,769	$22,297	$22,854	$23,334	$23,451	$23,943
TNI (= prev yr + CPI + 1%)	$157,536	$167,713	$172,577	$177,581	$182,909	$192,237	$198,966	$205,134	$208,211	$214,665
Full time pilot net income	**$175,846**	**$187,357**	**$173,270**	**$198,278**	**$217,588**	**$182,333**	**$204,769**	**$248,086**	**$229,449**	**$235,879**
Income % change fm prev yr		7%	-8%	14%	10%	-16%	12%	21%	-8%	3%
Travel allowance (avg)	$14,382	$14,408	$12,704	$15,547	$15,562	$13,073	$14,740	$16,771	$17,484	$16,460
B.C. Surcharge	$9,343	$11,788	$8,972	$9,482	$8,127	$5,693	$9,782	$11,556	$10,448	$9,599
Full time pilot gross income[1]	**$214,441**	**$228,929**	**$210,768**	**$239,588**	**$258,046**	**$223,396**	**$252,145**	**$299,747**	**$280,832**	**$285,881**
Estimated pension benefit[2]	$2,027	$23,597	$24,282	$24,986	$25,735	$27,048	$27,995	$28,862	$29,295	$30,203
Estimated comp day benefit[3]										$25,464
Gross Plus Pension/Comp Day Benefits for 2005										**$341,548**

[1] Includes net income; Individual Expense Allowance; Travel Allowance; B.C. Surcharge; estimated pension benefit; estimated comp day benefit.

[2] Assumptions: PSP Pension Plan; Age of hire = 42; Retirement age = 65; married with spouse 3 yrs younger than pilot; 2.68% increase in TNI; 5% interest rate; mortality table 94GARU2002.

[3] See "Comp Day Liability" tab.



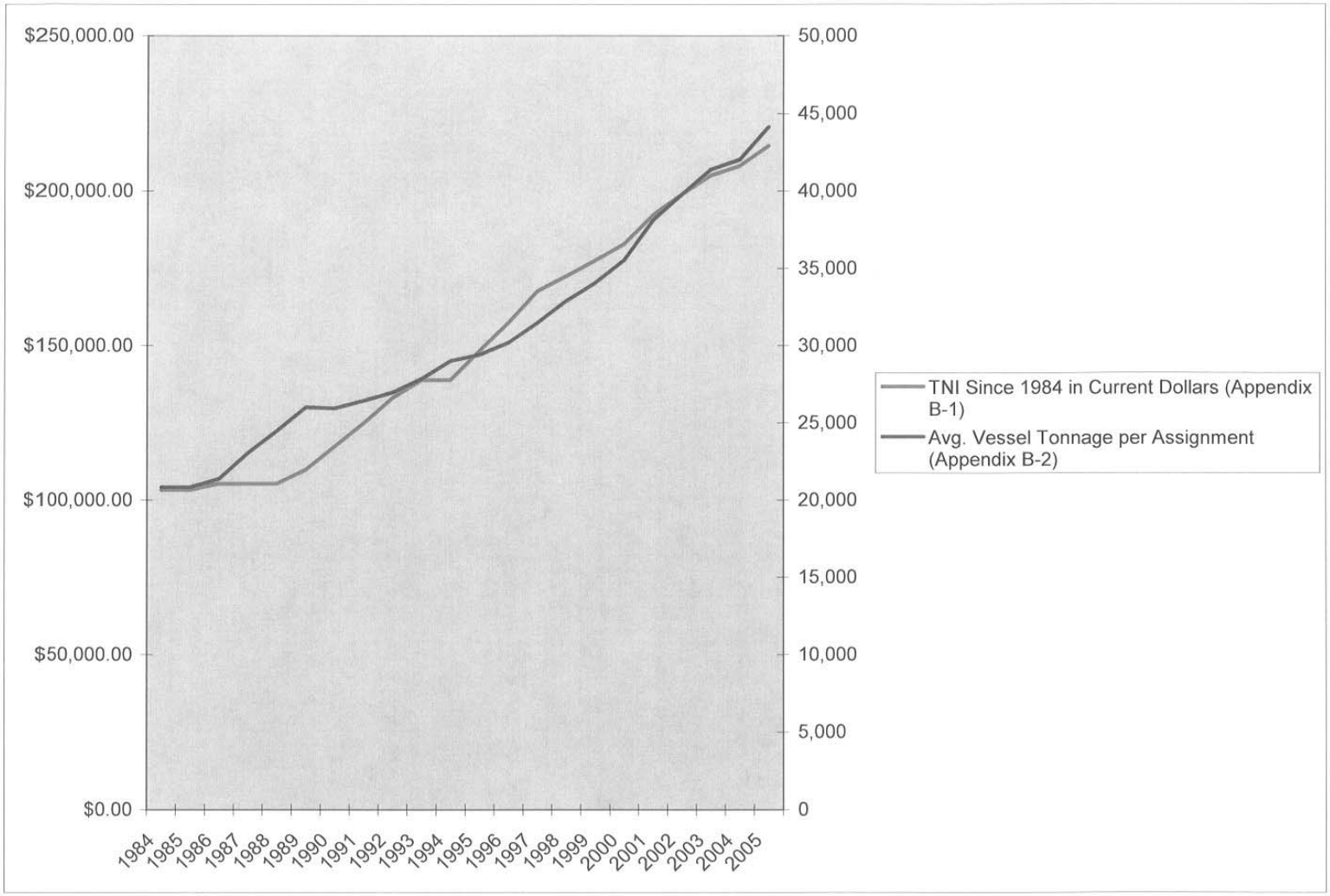
TNI Analysis

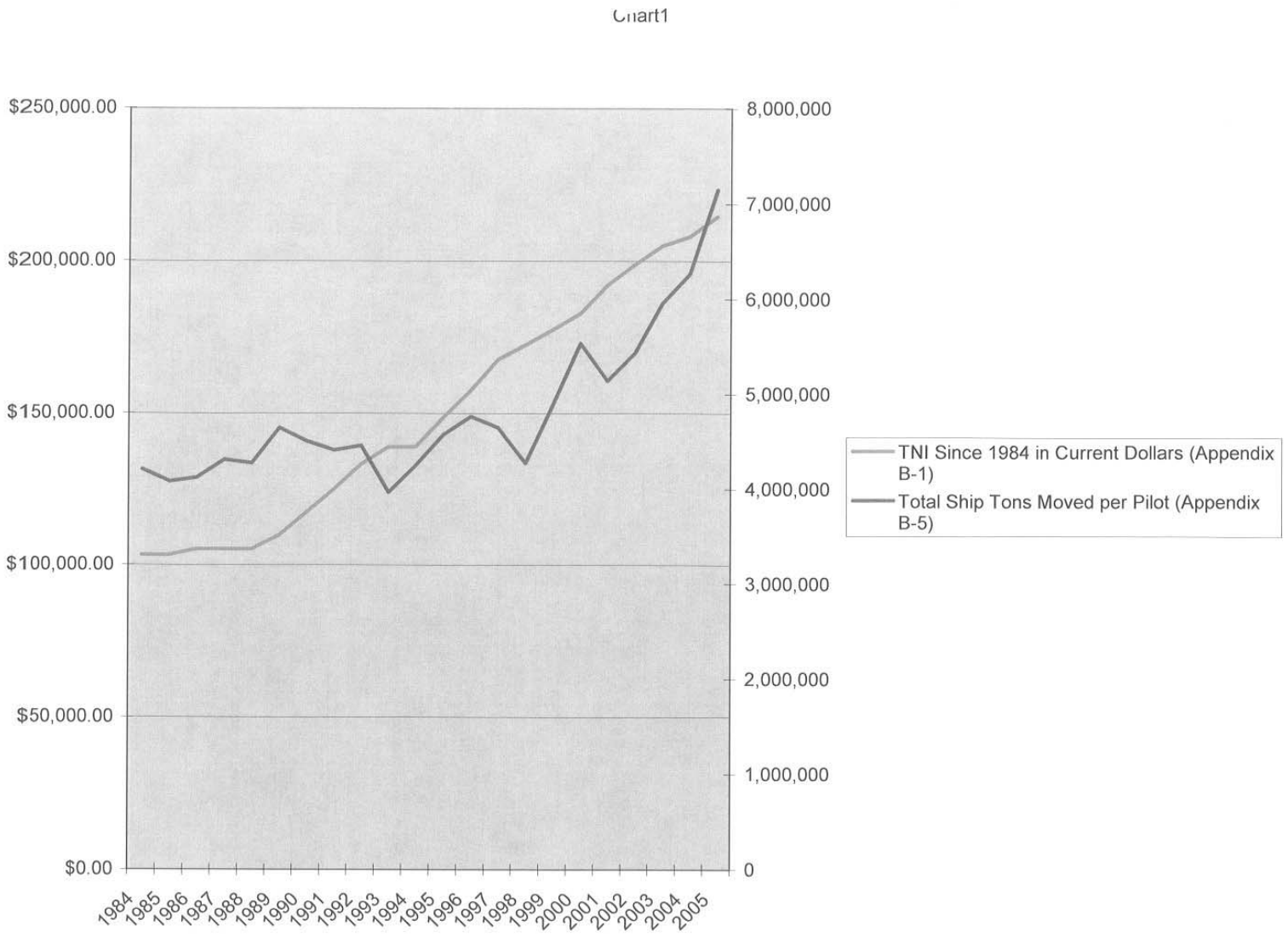
The following three graphs provide the following comparisons:

- TNI vs CPI
- TNI vs Tonnage
- TNI vs Ship Tons

These graphs use information provided in the PSP recommendation. They indicate that TNI has essentially matched tonnage while exceeding CPI over the last 10 years. These results mean that TNI has been managed exceedingly well. TNI has outperformed CPI over the life of the MOU and formula, and we know that Net Income exceeded TNI over the same time frame by nearly $200,000 ($85,000 over the last three years alone).

Chart Chart 1

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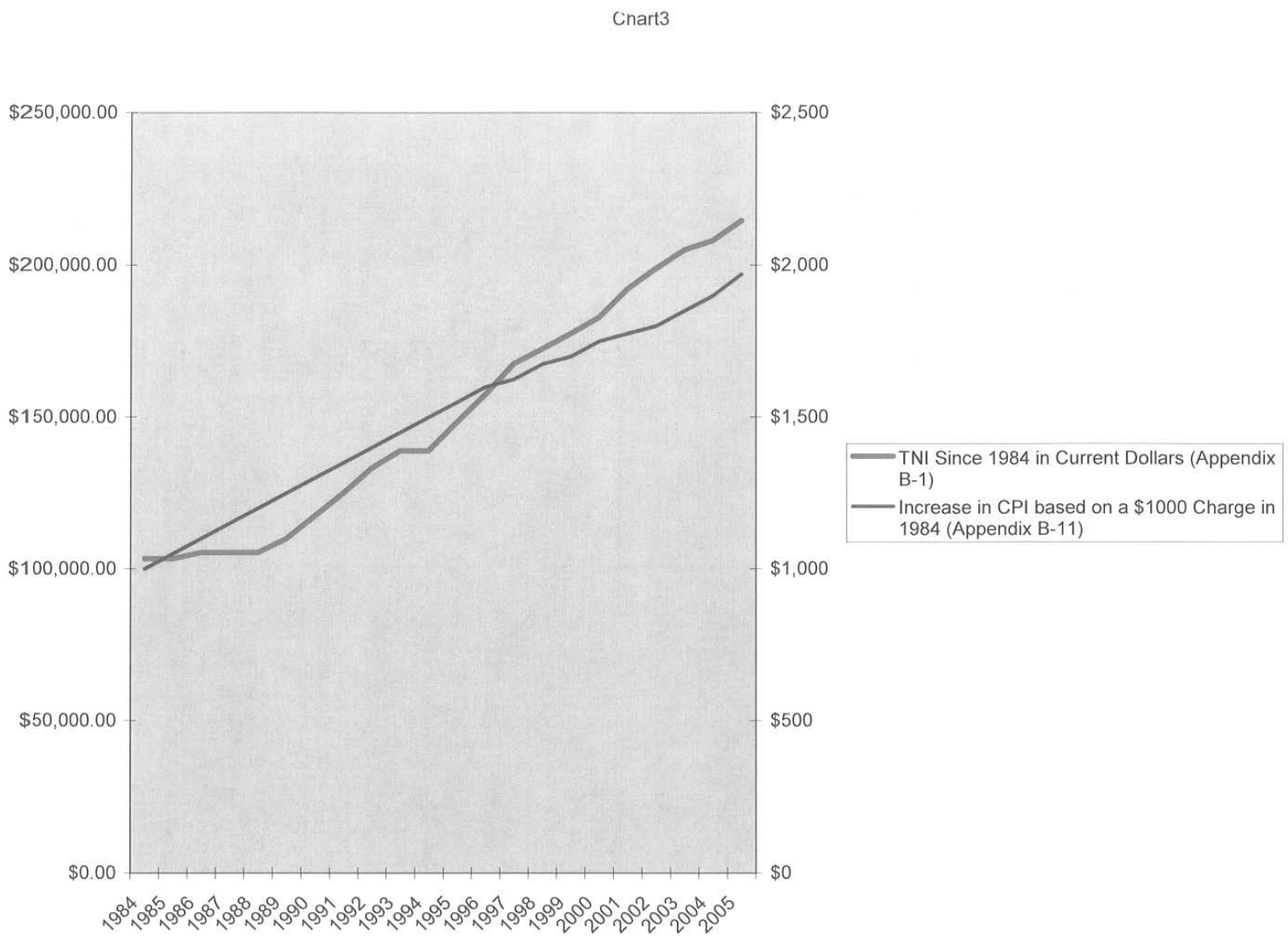
TNI Since 1984 in Current Dollars (Appendix B-1)
Total Ship Tons Moved per Pilot (Appendix B-5)



Large Vessels Pay a High Premium in Puget Sound

Much has been stated regarding the increasing size of vessels. We know that cruise ships, additional tanker calls and additional vessel shifts as well as the increasing size of container vessels account for the increases in tonnage reported by PSP. The belief that larger ships always require more skill, focus and energy and that this additional effort has been under-compensated has led PSP to seek an increase in the tariff. However, we questioned this assumption which caused us to analyze how various port tariffs behave as vessel size increases.

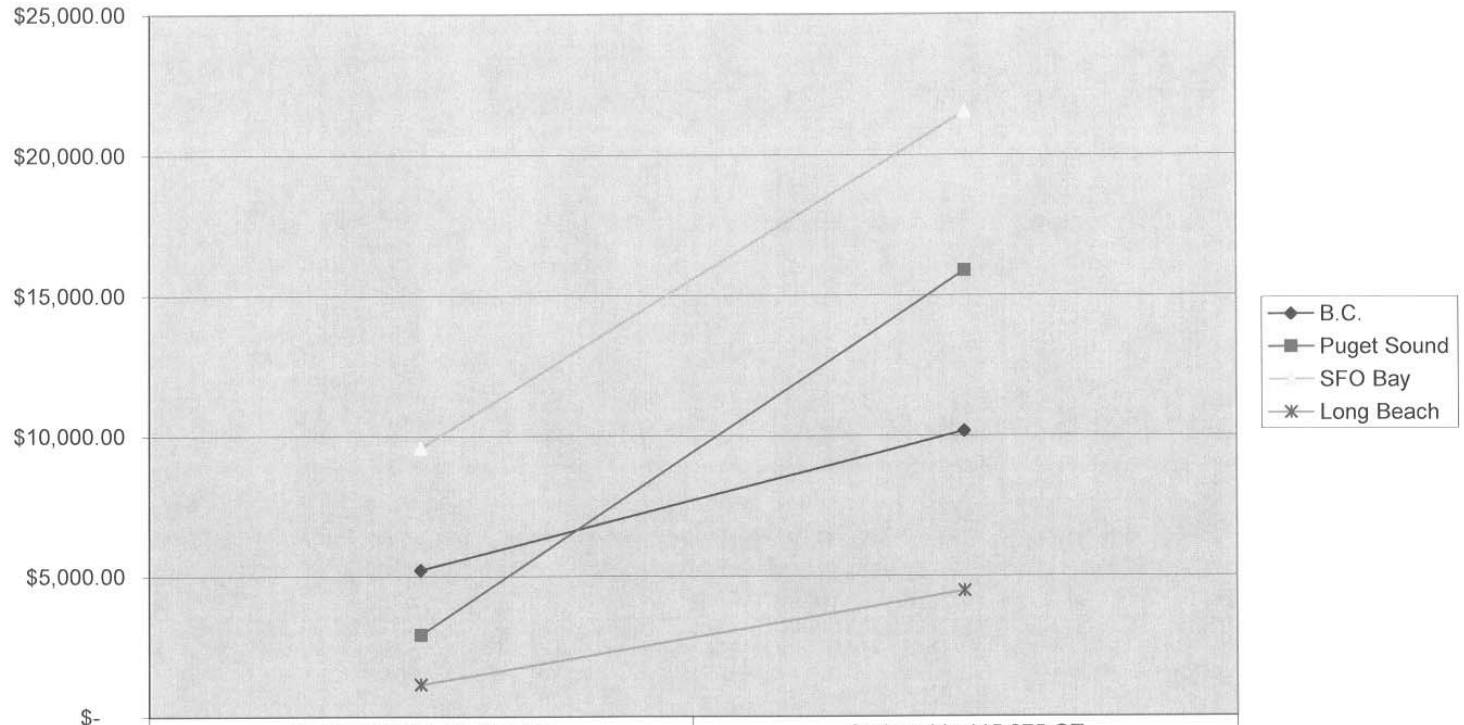
On the enclosed graph you will find the rate of tariff increase between a small tonnage vessel and a large tonnage vessel in four west coast ports. Please note that the Puget Sound rate of increase is the steepest of these examples. Data was derived from actual invoices and calculations.

This means that more revenue is produced per increase in vessel size than in the other ports. The impact of this is as follows:

1. Pilots earn more revenue faster as ship size increases; in other words a vessel mix with increasingly larger vessels will produce much more revenue.
2. General revenue over the past 10 years has gone up more than five times the percentage of tariff increase because larger vessels pay significantly more fees.

Larger vessel designs are incorporating improvements to make them safer, more efficient and more environmentally friendly. There are no tariff adjustments for those ships with innovative designs such as including up to six thrusters, 360 degree propulsion, twin redundant engine rooms and steering systems and other features…and no one is seeking such a change at this time. It is fair and reasonable to recognize that larger vessels are already providing a major share of pilot revenue. PSP is seeking additional compensation in part because vessels are getting larger but the evidence shows that larger vessels in Puget Sound are in fact already paying a higher premium relative to their smaller cousins than they would in other ports.

Large Vessels Pay a High Premium in Puget Sound



	Product tanker 11, 954 GT	Cruise ship 115,875 GT
B.C.	$5,223.78	$10,160.50
Puget Sound	$2,917.06	$15,879.06
SFO Bay	$9,575.44	$21,538.03
Long Beach	$1,156.00	$4,468.00

ANNUAL PENSION BENEFIT ESTIMATION

Until now, the present value of the PSP pension plan benefit has not been discussed or calculated. However, it is a valuable part of every pilot's compensation package and it is a significant future liability particularly if TNI is increased as dramatically and suddenly as PSP proposes. At the request of industry, a local actuary has done an estimate of the current value of the pension benefit expressed as the percentage of current TNI necessary to fund the plan if the plan were **funded** rather than **unfunded**.

ASSUMPTIONS

1) The pension is 1.5% X the number of years of service X the average TNI over the last three years before retirement.
2) The pension is a life annuity with a 50% pension to the surviving spouse and the spouse is three years younger than the pilot.
3) Retirement can occur at any time up to age seventy.
4) Other assumptions: TNI grows at an annual rate of 2.68% ; there is a 5% interest rate.
5) Mortality table used: 94GARU2002

The annual percentage of TNI that would be necessary to fund the pension during the years of service is as follows:

Age at Hire	Retirement age	Annual % of TNI (assume no spouse)
35	62	13.00%
42	62	14.15%
47	62	15.02%
52	62	15.92%

Age at Hire	Retirement age	Annual % of TNI (assume spouse)
35	62	14.25%
42	62	15.51%
47	62	16.46%
52	62	17.45%

Age at Hire	Retirement age	Annual % of TNI (assume no spouse)
35	64	11.65%
42	64	12.69%
47	64	13.48%
52	64	14.30%

Age at Hire	Retirement age	Annual % of TNI (assume spouse)
35	64	12.91%
42	64	14.07%
47	64	14.94%
52	64	15.85%

The extra cost of a sudden increase in TNI as it relates to pensions is very significant. To give an example, assume someone retires on Dec. 31, 2008 at age 65 with twenty years of service. **Under the current TNI**, increased by 2.68% each year, the monthly pension would be equal to:
(1/12) X (($214,665) X (1.0268 + 1.0268^2 + 1.0268^3) / 3) X .015 X 20 = **$5,659 per month**

Should TNI rise as prescribed by PSP, the monthly pension would be equal to:
(1/12) X (($295,00 + $370,000 + 379,916) / 3) X .015 X 20 = **$8,708 per month**

The value of these pensions on Dec 31, 2008 would be:

	With Spouse	Without Spouse
Current pension:	$887,929	$800,913
Under PSP plan:	$1,366,335	$1,232,435

Analysis provided by Albion Actuarial Consulting Inc.

Comp Day Liability Is Significant

Current Liability
According to the Puget Sound Pilots most recently completed Financial Statement and Independent Auditor's Report, total Comp Day value as of December 31, 2005 was approximately **$6,237,252.** We estimate that this represents 9,652 days if this value is based on the 2005 value of one day of net pay.

Increase of Comp Day Liability in 2005 was Significant
Activity in 2005 resulted in an increase of **$1,273,224** over the previous year. This represents approximately 10% of overall pilot net income or the equivalent of nearly 5 full time pilots' worth of annual net pay.

How Does This Relate to TNI and Net Income?
It appears that the present value of comp days is directly related to net income and therefore TNI. Simply put, if TNI is increased 86% to $400,000 in year two of the PSP plan and net pay follows, then total comp day value reported in 2005 would grow to $11,601,288, adjusted by comp days used or accumulated. This liability is easy to overlook, and we urge the Commission to ask questions about comp day accumulation as it relates to work load and as it relates to financial and unfunded liabilities.

Comp Day Value Is Not Reflected in Net Pay
Assignments performed with comp days in 2005 produced revenue that was then distributed to the pilots. This revenue was reflected in the full time net pay of $235,879 each. Without knowing more about comp day accumulation or use, we see the increase of $1,273,224 in 2005 as adding another $25,464 worth of value to each pilot in a single year – this ought to be considered. This is one reason we continue to emphasize a full review and understanding of revenue, income and value associated with completing assignments with off duty pilots.

Comp Day Relationship to Pilot Staffing
The use of comp days provides an opportunity to staff below peak demand if done reasonably. It makes good sense and provides a "win/win" situation. When looking at the dollars involved, we believe that comp day incentives are already substantial. However, we are looking at ways that the comp day system could be restructured to potentially move the incentives from the distant future to the immediate present. At the same time, we anticipate that the Commission will be looking more deeply into workload and comp days when determining methodologies for setting pilot levels.

Pay Comparison and Cost of Living Adjustments

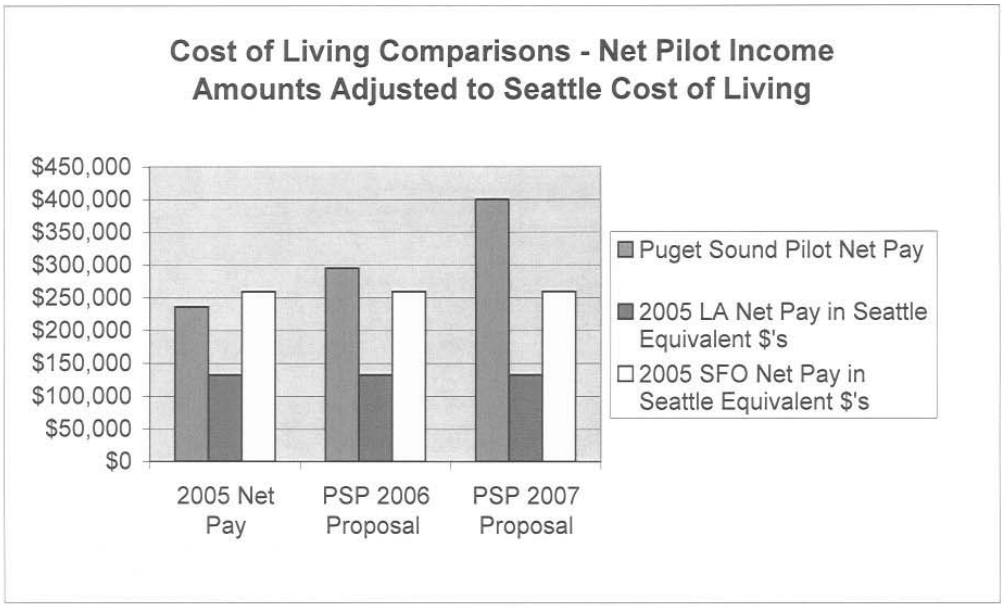
Cost of Living Comparison Graphs
The following graphs provide comparisons between Puget Sound, San Francisco and Los Angeles taking into account the cost of living differences. The first chart compares net income for 2005 as well as for PSP proposals in 2006 and 2007. Puget Sound net income clearly exceeds Los Angeles and is on par with San Francisco in 2005. Puget Sound Pilot net income would significantly exceed the cost of living adjusted net income in both Los Angeles and San Francisco if the PSP proposal was fully implemented. It should be noted that due to unusual increases in compensation, the San Francisco pilot tariffs are frozen while industry and the pilots determine what adjustments should be made.

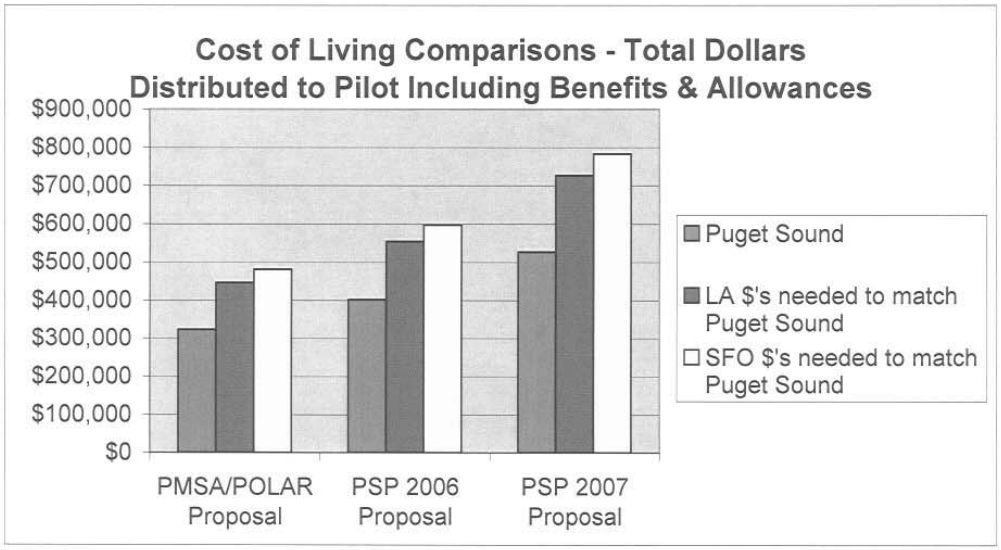
The second graph looks at net income plus all other dollars received by Puget Sound Pilots including benefits, annual pension value, allowances and comp day value (see pension and comp day tabs for more information on these categories). Cost of living adjusted values for Los Angeles and San Francisco are graphed in comparison to the PMSA/POLAR proposal and the PSP 2006 and 2007. The dollar amounts needed to match the PSP proposals range from $554,000 in LA in 2006 to nearly $800,000 in San Francisco in 2007.

Relative Pay of Other Transportation Related Risk Management Occupations
We would agree that the maritime pilot is an important element of the maritime risk management equation. So too is the airline pilot an important element in the aviation risk management equation. Airline pilots are directly responsible for the safe operation of the aircraft, most filled with hundreds of people. The median expected salary for a typical Captain/Pilot in command of a large jet in Washington is $113,497[1]. The median expected total cash compensation is $122,301 and the median total compensation including benefits is $159,777[1]. The highest salary for a Continental airline Captain is $180,704[1]. As we have all heard in the news, many airline pilots and other airline workers have taken pay reductions because of the financial downturn in the airline industry.

> Note 1: Salary.com -- Based on market pricing report prepared using Certified Compensation Professionals analyzing survey data collected from thousands of HR departments at employers of all sizes, industries and geographies.

Puget Sound Pilot Compensation
As employees for companies competing in the market place, airline pilot compensation is subject to significant reductions as has been recently reported. As the Puget Sound Pilots are independent contractors, not company employees, they are not exposed to individual company financial risks nor are they entitled to directly share in profits during good years. The pilots provide a service for which they are well compensated. We look to the Commission to ensure that their compensation is fair and reasonable regardless of the ups and downs of the industry.





Source: PSP Audited Financials; LA Published Salary & SF Expected Pay for 2005 per PSP
Cost of Living Index Information Source: ACCRA, the Council for Community and Economic Research

Pilots swallow 'bitter pill'

JEWEL GOPWANI; Detroit Free Press
DETROIT – A temporary 24 percent pay cut that Northwest Airlines pilots took in November will stick if the pilots ratify the tentative deal their union reached with the carrier Friday.

The Air Line Pilots Association released some details Sunday about the tentative agreement with the airline, which is based in Eagan, Minn., and reorganizing through Chapter 11 bankruptcy.

The two sides had been negotiating around the clock before reaching a deal Friday afternoon. The tentative deal keeps a bankruptcy judge from having to decide whether he should throw out the pilots' contract and allow Northwest to impose lower wages and new work rules, a prospect that prompted the pilots to threaten to strike. A strike would have shut down the airline and could have put it out of business.

Here are key issues addressed in the deal:

• The agreement keeps the 24 percent pay cut and includes raises of 1.5 percent in 2008, 2009 and 2010, and a 2 percent raise in 2011. The pilots' pay cut falls about 4 percent short of the cut Northwest sought in October, said Wade Blaufuss, ALPA communications chair.

• The 24 percent pay cut is on top of previous wage cuts. The pilots took a 15 percent pay cut in 2004, part of a concessionary deal that saved the airline $250 million a year.

• With the 24 percent cut, a Boeing 747 captain in his 12th year who flies 75 hours a month, a typical schedule, saw his base wage drop from $220.88 an hour in flight, or about $198,700 a year, to $168 an hour, or $151,200 annually. A 12th-year DC9 first officer's base hourly wage dropped from $111 an hour in flight, or $99,900 a year, to $84 an hour, or $75,600 a year.

"It's a bitter pill to swallow," Blaufuss said Sunday. "It's like a grieving process. First, there's feelings of anger and denial, and eventually, some pilots may reach that point of acceptance that this is a necessary sacrifice."

Printed in the Tacoma News Tribune on March 7, 2006

Northwest Airlines pilots agree to tentative wage-cutting deal

THE NEWS TRIBUNE (March, 2006)
Pilots reached a tentative pay-cut deal Friday with Northwest Airlines Corp., a major step toward ending a showdown that put the bankrupt airline's future in doubt.

The Northwest branch of the Air Line Pilots Association announced the agreement but didn't release details. The nation's fourth-largest airline said it got the $358 million in savings it sought.

The deal would still have to be approved by the union's leadership and members. The union said its leaders would meet Friday night to consider the agreement.

Pilots were the last Northwest union without a deal.

Northwest is Sea-Tac Airport's fifth-busiest carrier, serving Minneapolis and Detroit in the continental U.S.

The Associated Press

WEST COAST PILOTAGE RATE COMPARISONS

"It is the further intent of the legislature **not to place in jeopardy Washington's position as an able competitor for waterborne commerce** from other ports and nations of the world, but rather to continue to develop and encourage such commerce." (RCW 88.16.005)

In striving to provide safe, competent and efficient pilotage for the state of Washington, it is the Pilot Commission's responsibility to strike a balance between the pilots' desires for increased income and the desires of Washington state ports, businesses and consumers to have Puget Sound remain a reasonably competitive force in the market place.

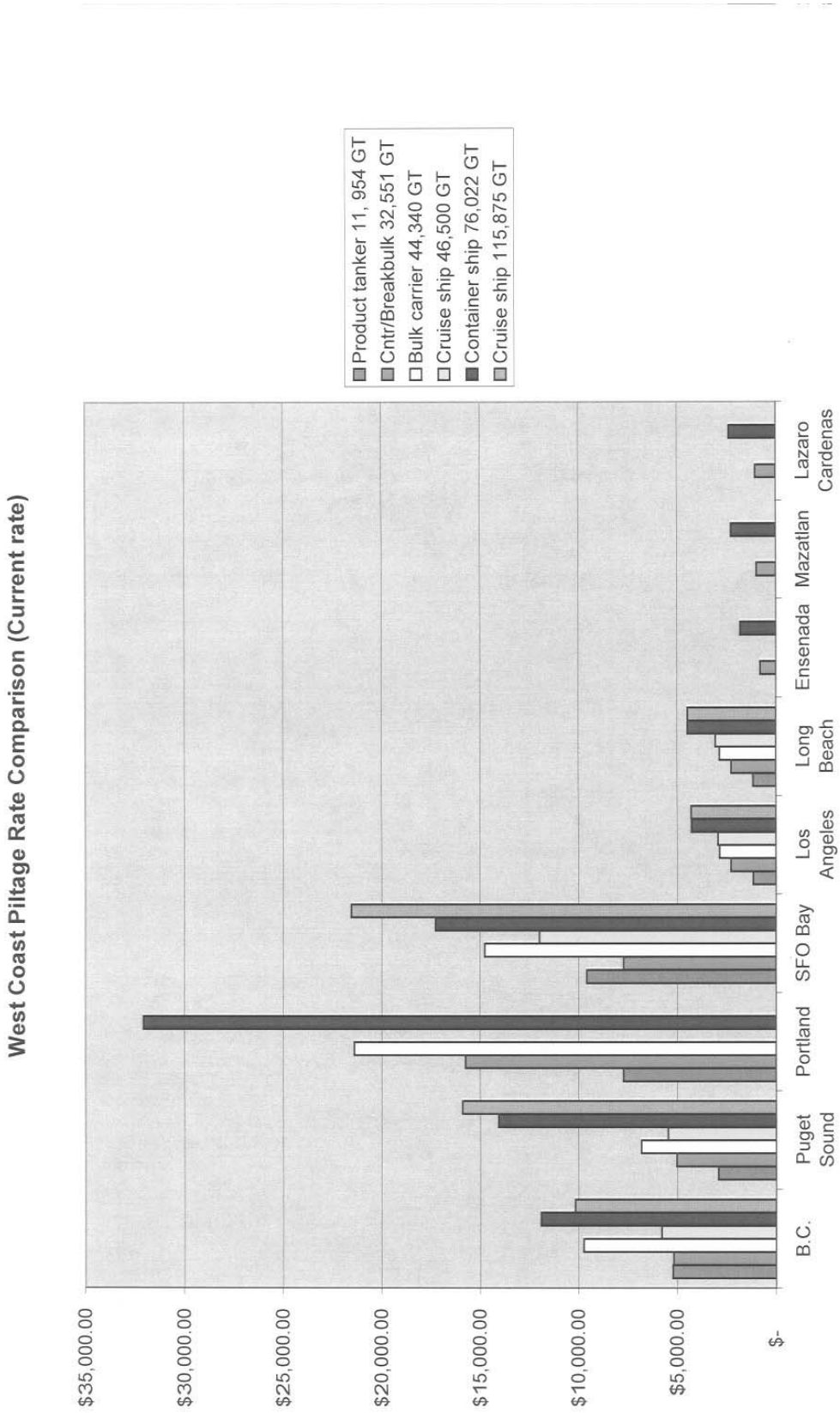
As we are all well aware, Puget Sound is a discretionary port, and we have keen competition for such cargo. Prince Rupert's new container facility is coming on line next year, and Vancouver, B.C. just announced recent growth far greater than Seattle or Tacoma. Southern California remains very competitive with the PNW, and now we are seeing significant investment in Mexican ports just south of the California border. In short, we must always be aware of how we stack up against competing ports in terms of cost, and this is why we include this enclosure.

West Coast Pilotage Rate Comparison (Current Rate)---This graph shows the cost of pilotage for six ships ranging in size from a small product tanker to a large cruise ship. The data was compiled from actual pilotage invoices or by calculating pilotage costs based on current west coast published rates. We did not attempt to control destination within each area due to the difficulty of determining comparable ports up and down the coast. Although the sample size is small, it illustrates the competitive disadvantage we have with southern California and how close we are in rates to our B.C. counterparts.

West Coast Pilotage Rate Comparison (Current rate plus 36%)---Here we attempt to show the effect of PSP's 2006 proposed rate hike by adding a 36% increase to the Puget Sound data. PSP's proposal actually calls for a 40.92% increase for the tariff year but some of that increase comes from standby and delay penalties. In a graph comparing typical port costs, these charges are inappropriate so we decreased our multiplier to take this into account. Obviously such an increase has a dramatic effect on Puget Sound's position on the chart, particularly for large vessels.

Average West Coast Pilotage Rate Comparison (Current; PSP 2006; PSP 2007)--The blue bars are the current average costs for all six vessels at each of the west coast ports. We then took the average of the Puget Sound data increased by 36% (the 2006 PSP proposal), and this yielded the brown bar. We then calculated the 2007 tariff increase based on PSP's request for a TNI of $400,000. This would require a 22.8% tariff increase and would make Puget Sound the second highest pilotage ground on the west coast, all else being equal. While we don't know how other tariffs might change, we do know San Francisco's tariff will remain the same for 2006. Even while revenues were increasing astronomically in San Francisco, their tariff increases did not exceed 6% per year so its unlikely SFO would see a large change in 2007.

See the following articles regarding competitiveness issues facing Puget Sound ports.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Puget Sound
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SFO Bay
Los Angeles
Long Beach
Ensenada
Mazatlan
Lazaro Cardenas
Product tanker 11, 954 GT
Cntr/Breakbulk 32,551 GT
Bulk carrier 44,340 GT
Cruise ship 46,500 GT
Container ship 76,022 GT
Cruise ship 115,875 GT

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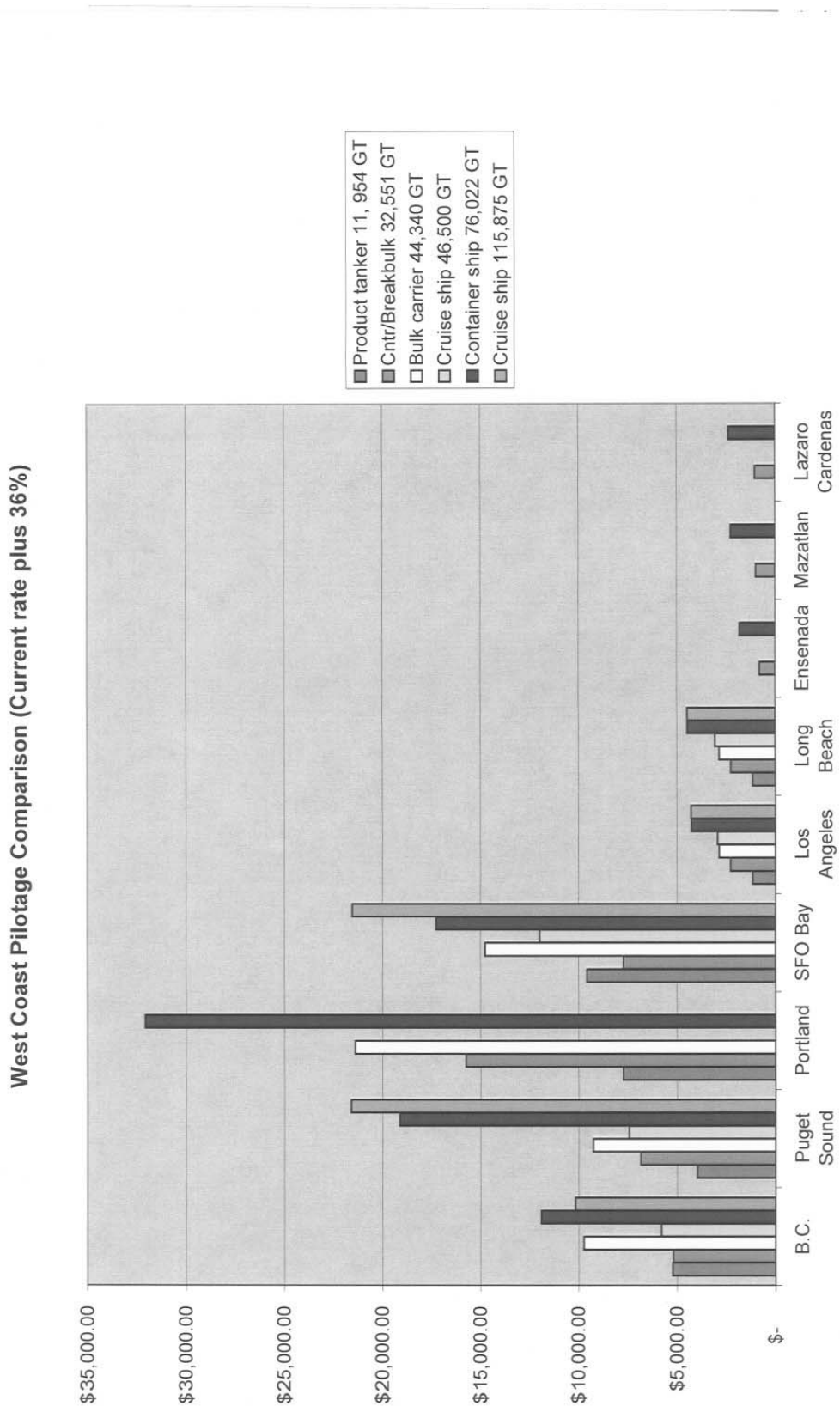
West Coast Pilotage Comparison (Current rate plus 36%)
Product tanker 11, 954 GT
Cntr/Breakbulk 32,551 GT
Bulk carrier 44,340 GT
Cruise ship 46,500 GT
Container ship 76,022 GT
Cruise ship 115,875 GT
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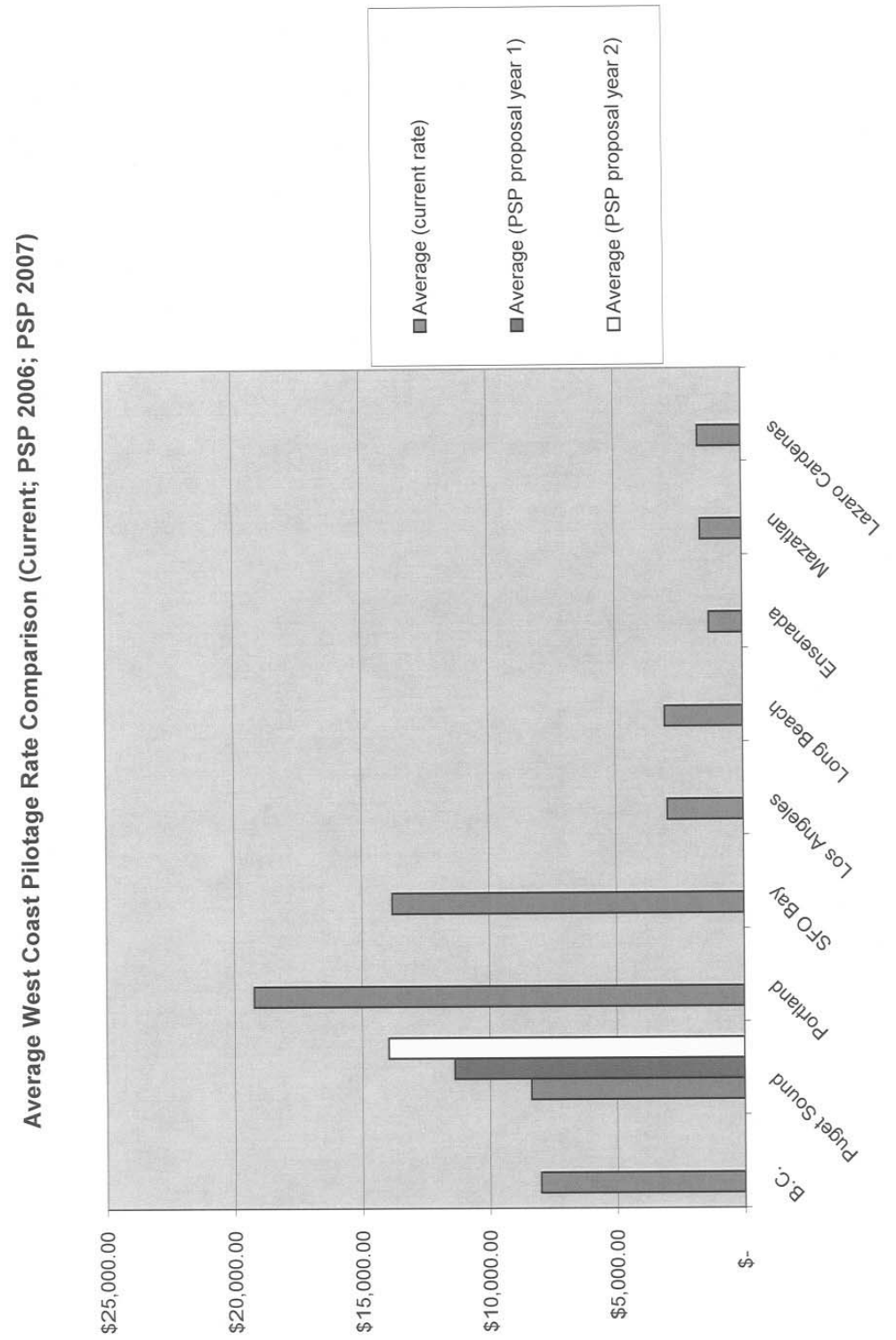
Average West Coast Pilotage Rate Comparison (Current; PSP 2006; PSP 2007)
Average (current rate)
Average (PSP proposal year 1)
Average (PSP proposal year 2)
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Prince Rupert port on Canadian National's 2006 budget

Journal of Commerce: Updated 5:03 p.m. ET, Fri Apr 21, 2006

Canadian National Railway plans to invest C$1.5 billion in its network this year, including its share in a container terminal under construction at Prince Rupert, British Columbia, in partnership with the port authority and Maher Terminals.

Hunter Harrison, CN chief executive, on Friday told the company's shareholders meeting in Memphis -- its the first outside Canada -- that the Prince Rupert container terminal will serve as a new North American gateway for imports from China bound for the railroad's four major distribution centers in Memphis, Chicago, Toronto and Montreal, Canadian Press reported.

"There'll be no congestion at the port or on the network," Harrison said. "The potential growth opportunities are immense."

He added that the gateway will also provide an overseas link for U.S. cotton.

The railroad this week said it will spend US$100 million to modernize its Memphis yard, its largest investment outside Canada.

Canadian National on Thursday reported first-quarter net income of US$318 million on revenues of $1.6 billion.

Drop in February imports through West Coast hubs

Updated 2:22 p.m. ET, Wed Mar 15, 2006

By Bill Mongelluzzo
The JOURNAL of COMMERCE ONLINE

LOS ANGELES -- Containerized imports at West Coast ports declined in February due to a drop in shipments from Asia as factories shut down for the Chinese New Year celebration.

Imports through Los Angeles fell 14.4 percent from a year ago, but neighboring Long Beach registered a slight gain of almost 1 percent. Containerized imports declined 4.5 percent in Oakland and 19.9 percent in Seattle.

Shipping executives who addressed The Journal of Commerce's Trans-Pacific Maritime Conference in Long Beach last week said cargo volumes have picked up in March and bookings for April were also strong, so the ports should experience a post-Chinese New Year bounce.

Exports in February were generally strong, up 10.5 percent through Los Angeles and 21 percent at Long Beach. Oakland reported a gain of almost 1 percent while exports through Seattle declined 5.5 percent.

The diversion of cargo away from Southern California ports that began during severe peak-season congestion in 2004 have apparently ended. Hyundai Merchant Marine, which last year re-routed one of its trans-Pacific services from Long Beach to call in Tacoma, announced that the service will return to Southern California in May.

Carriers are expected to start at least two new services to LA -Long Beach this year, and most of the lines calling in Southern California will replace vessels in existing services with larger ships. Industry analysts project a volume increase of 8 to 10 percent in the eastbound Pacific this year.

Bill Mongelluzzo can be reached at bmongelluzzo@joc.com.

Vancouver tops northwest volume

Updated 9:29 a.m. ET, Mon Apr 24, 2006

By Bill DiBenedetto

The JOURNAL of COMMERCE ONLINE

SEATTLE -- Vancouver, Canada's largest import gateway, led all Pacific Northwest ports in container volume and also posted the largest across-the-board TEU percentage gains for the region in the first quarter, muscling its way into the traditional rivalry between Tacoma and Seattle.

The British Columbia hub benefited from the booming Asia-Pacific trade and recent carrier service rotation adjustments that have either added Vancouver or made it a first port of call on the West Coast to take advantage of shorter steaming times.

Vancouver's container traffic jumped 17.5 percent from the same quarter a year ago to 476,296 TEUs, a scant 203 TEUs ahead of Tacoma, which saw volume increase 5.7 percent to 476,093 TEUs. However, Tacoma's total includes nearly 108,000 TEUs in the domestic trades to Alaska and Hawaii.

Vancouver's full inbound international containers surged 26.7 percent to 245,612 TEUs through March and full outbound boxes increased 8.1 percent to 183,480 TEUs.

Tacoma's full import boxes increased 6.1 percent to 173,696 TEUs while export containers slipped 6.6 percent to 87,669 TEUs. The port's domestic box traffic fell by 2 percent.

Seattle, which moved the most containers in the region in 2005, saw total volume decline 8.4 percent through March to 452,292 TEUs. The port's imports and exports also declined in comparison to the strong January-March 2005 period, when carriers made rotation changes and diverted shipments from Southern California on peak-season congestion fears.

Seattle's full import boxes declined 6.2 percent to 195,337 TEUs and full export containers fell 10.1 percent to 152,471 TEUs, but still well ahead of rival Tacoma to the south.

The Port of Portland, Ore., continued its recovery from the loss last year of two trans-Pacific container carriers, posting a 7.5 percent increase in volume through March to 38,816 TEUs.

The increase came before the start of new services this month by two carriers at the Columbia River port's Terminal 6, Zim Integrated Services and Yang Ming Line, which will boost volume even more as the year progresses.

Traffic through Portland was more balanced between import and exports, and unlike virtually every other port that handles international containers, it exported more boxes than it imported. Exports totaled 21,804 TEUs, virtually even with the number posted through March 2005, while imports surged 19.3 percent to 17,012 TEUs.

Portland also turned in double-digit increases in grain shipments, up 27.3 percent; breakbulk, up 21.8 percent, and auto units, up 18 percent

CKYH alliance to reduce capacity to Pacific Northwest

American Trader – April, 2006

CKYH alliance members COSCO, "K" Line, Hanjin Shipping and Yang Ming Marine will in the next few months revise their services in the Asia/Pacific Northwest market, reducing annual one-way capacity by about 80,000 TEUs.

Starting May, COSCO and Hanjin will provide four 5,500-TEU containerships to operate on two fortnightly services, the CH-PNW South Loop and CH-PNW North Loop.

The two vessel CH-PNW South Loop will have a port rotation of: Hong Kong, Yantian, Yokohama, Vancouver, Seattle, Yokohama and Hong Kong. The two ship CH-PNW North Loop's port rotation will be: Shanghai, Busan, Seattle, Portland, Vancouver, Kwangyang and Shanghai.

"K" Line's existing K-PNW loop will upgrade from five 4,000-TEU ships to five vessel of 5,500 TEUs. The K-PNW's port rotation will be: Xiamen, Hong Kong, Yantian, Shanghai, Nagoya, Tokyo, Tacoma, Vancouver, Tokyo, Nagoya, Kobe and Xiamen.

Yang Ming's Y-PNW Loop will deploy five 1,800-TEU vessels calling Keelung, Yantian, Kaohsiung, Tacoma, Portland and Keelung.

According to ComPair Data, the global liner-shipping database at http://www.compairdata.com, the CKYH alliance members between them operate four weekly services between Asia and the Pacific Northwest, contributing about 750,000 TEUs in annual one-way capacity. After the changes, the Asia-based alliance will provide about 670,000 TEUs in annual one-way capacity to the trade.

Property frenzy in Baja California

As megaport is planned 50 miles south of Ensenada, secrecy surrounds land sales in impoverished area

By Diane Lindquist
STAFF WRITER

April 24, 2006

PUNTA COLONET, Mexico – After Mexico picked this uninhabited inlet as the site for a new west coast megaport two years ago, beachfront land that held value only to surfers and a handful of fishermen suddenly became hot property.

Since then, global and domestic business executives, Mexico City lawyers, consultants, engineers and even a former Baja California governor have been beating a path along a pot-holed dirt road from the town of Colonet on the trans-peninsular highway to the water's edge five miles away.

Federal officials have yet to announce a bidding competition, but the project has set off a land grab in this impoverished area 50 miles south of Ensenada.

Buyers have snatched up 132 prime acres along a strip of tideland likely to be transformed over the next decade into docks for container ships arriving from Asia with goods destined for America's heartland.

Former Baja California Gov. Ernesto Ruffo Appel and a partner have bought one such parcel, and also a nearby mountaintop and rights of way to move rock that might be used for the massive project.

CHARLIE NEUMAN / Union-Tribune
Punta Colonet is likely to be transformed over the next decade into a megaport that will help to handle the increasing amount of cargo coming from eastern Asia.

"We have purchased 2,500 hectares (more than 600 acres)," Ruffo said. "We've spent about $3 million so far. That shows how serious we are."

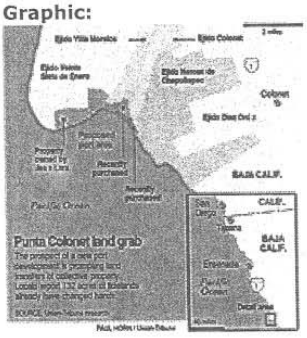
Additional groups are said to be maneuvering for other choice sites. Secrecy obscures much of the wheeling and dealing.

The Punta Colonet property frenzy is changing life in a rural region populated in part by families who have held the unproductive land for a half century in collective *ejido* arrangements. The influx of cash has split apart communal groups, pitting family against family, brother against brother.

José Luis González learned he was being cut out of a windfall coming to Ejido Villa Morelos last August, a day before 18 other members of the group gathered at a bank to receive checks for selling several parcels of oceanfront property.

González, his brother Rubén and two uncles have since taken their

Graphic:



Punta Colonet land grab

fellow *ejido* members to what is known as an agrarian resolution court, seeking a slice of the proceeds.

"I don't know exactly how much they got. They aren't letting us know," González said recently while taking a break from preparing a cornfield for planting. "But now they're driving fancy cars and wearing nice clothes."

Several sources with knowledge of the transaction estimate that $10 million to $15 million was paid for the land.

"No one is against the development," González said. "We're glad the port's being built because it's needed. We're against how we're being treated."

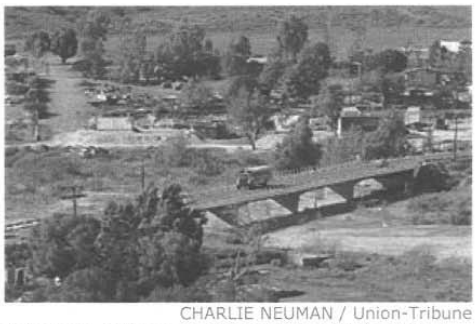
Numerous individuals refused to be quoted for publication because of the sensitivity of the subject or fear of financial repercussions. Others didn't return phone calls and e-mails. Baja California Economic Development Secretary Sergio Tagliapietra declined to comment through a spokeswoman because he "doesn't want to contribute to the speculation."

A federal official said the government plans to encourage investors from across the United States and Asia to take part in the competitive bidding process that is expected to start in the next month or two.

U-shaped port project

The port project is being driven by the inability of other ports, especially those at Long Beach and Los Angeles, to handle increases of cargo coming from eastern Asia. Shipments from there are growing 15 percent annually and are expected to double by 2020.

Punta Colonet will serve only container ships, said Ensenada port director Carlos Jáuregui González, who will be involved with the government's marketing and bidding process. The port will be configured in a U-shape, with each leg having several berths and cranes to handle cargo. One leg will also comprise the project's breakwater.



CHARLIE NEUMAN / Union-Tribune
In Colonet, a bus crossed over the San Rafael River, which empties into the ocean at Punta Colonet when the river is flowing.

Nearly 7,000 acres, 97 percent of them water and 3 percent tidelands, will be devoted to the project. A harbor must be dredged deep enough to accommodate several megaships at once.

Within seven years, Punta Colonet could be processing the equivalent of a million 20-foot-long containers annually, 6 million by 2025.

"It's actually going to be bigger than Los Angeles and Long Beach together," said Albert Fierstine, a consultant who was the Port of Los Angeles' business development director.

Together, those ports handled 13 million TEUs in 2004, or $200 billion worth of cargo. TEU, or 20-foot equivalent units, is the standard measurement in the shipping industry to quantify container traffic.

The port and rail projects are expected to require an investment of $4 billion to $5 billion. But the development of the region, including a city with thousands of inhabitants that would spread farther east into *ejido* lands and support the cargo operations, is expected to attract as much as $22.2 billion in investment.

Big names

According to area residents, including Ruffo, Hutchison Port Holdings, the parent of Ensenada's cargo and cruise ship operator, is behind the purchase of the Ejido Villa Morelos parcel. The name on land transfer records, however, is Ernesto Roberto Tatay.

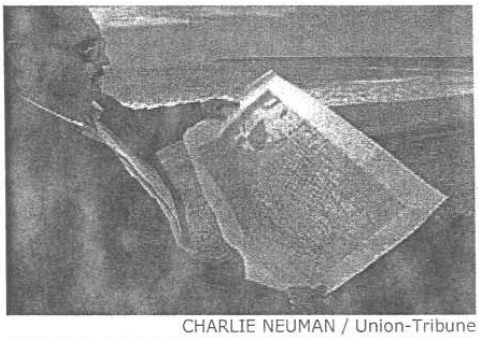
González said that when the judge in the Ejido Morelos case asked who Tatay is and where he lives, Tatay's attorney said he didn't know. The lawyer has been ordered to produce the information.

Officials of Hutchison Ports Mexico, a subsidiary of Hutchison Whampoa Ltd., the world's largest port operator and developer, did not return phone calls and an e-mail seeking comment on Punta Colonet land purchases.

"They are not buying anything now," said Isaura Puppo, secretary for Hutchison executive Mike Power. She declined to confirm whether the company is behind the Ejido Villa Morelos acquisition.

Punta Colonet landowners and residents of Colonet, a town of about 5,000 populated mostly by area *ejido* members and farmworkers transplanted from southern Mexico, said they have been given no official information about plans for the region.

However, Jesús Lara, who owns more than 900 acres atop a cliff overlooking the proposed site, has been waging an one-man effort to learn about the project, the land purchases and the companies and people involved.



CHARLIE NEUMAN / Union-Tribune
Jesús Lara, who owns more than 900 acres atop a cliff overlooking Punta Colonet, displayed a map last month showing the parcels that will be affected by the port project.

After buying the cliff-top property about five years ago, he was in the process of clearing land to develop a golf course, a hotel and restaurant when he got wind of the port project about eight months ago.

"I was just starting a lot of work there, and these guys came and bought (the parcels below his)." he said. "And I said, 'What am I doing?' Then I stopped."

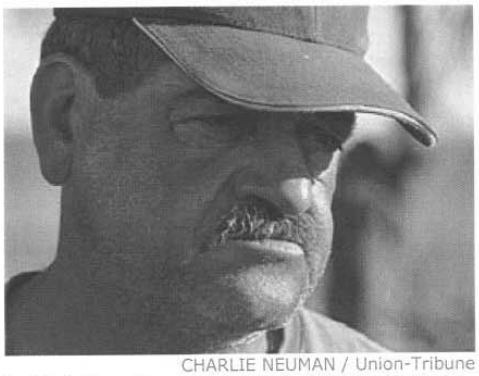
Lara grew up as a member of a nearby *ejido,* farmed in the area and operates a cross-border trucking firm from Chula Vista. Bilingual and bicultural, he has sought out officials to discuss the project and has become an important contact for many of the parties interested in the port development.

"Everybody is thinking now is the time to buy the land cheap. If you're down there every day, you'll see helicopters, planes and four-wheel drive vehicles coming in," he said.

According to Lara and Ruffo, Hutchison paid about $5 per square meter compared to the average $7 per square meter Ruffo and Ensenada businessman Roberto Curiel Amaya paid Ejido Heroes de Chapultepec for their tideland property.

Initially, Ruffo said, he was acting as a consultant for interested parties but as the project appeared more feasible, he decided to pair with Curiel, a builder with extensive interests in sand, gravel and rock, to play a larger role under a company they formed called Puerto Colonet Infrastructura.

"I will certainly be a bidder," he said. "Now we are trying to put together a consortium."



CHARLIE NEUMAN / Union-Tribune

José Luis González was cut out of a windfall coming to other Ejido Villa Morelos members who sold parcels of property.

Besides the two communal groups that have sold land, three others – Ejido Veinte Siete de Enero, Ejido Diaz Ordáz and Ejido Mexico, which is also known as Ejido Colonet – hold property in the area where the port, railroad and new city are to be built.

It's up to developers to secure land for the port project, said port director Jáuregui.

Property for a 180-mile rail line from the port to Mexicali is likely to be obtained through eminent domain by the state of Baja California, he said. From the port, it is expected to run along the San Rafael River valley north to the border near Mexicali.

'Now money's involved'

The Ejido Morelos judicial dispute, Jáuregui said, "could interfere with the project if it is not properly solved."

Once forbidden from selling their land, the collective groups are permitted to do so under a 1992 change in Mexican federal law.

After that change, José Luis and Rubén González and two of their uncles bought a few parcels to farm on their own from the other members of Ejido Villa Morelos, which was formed in 1958.

"Those of us who were cut out of the cake are the pioneers of the *ejido*," Rubén González said.

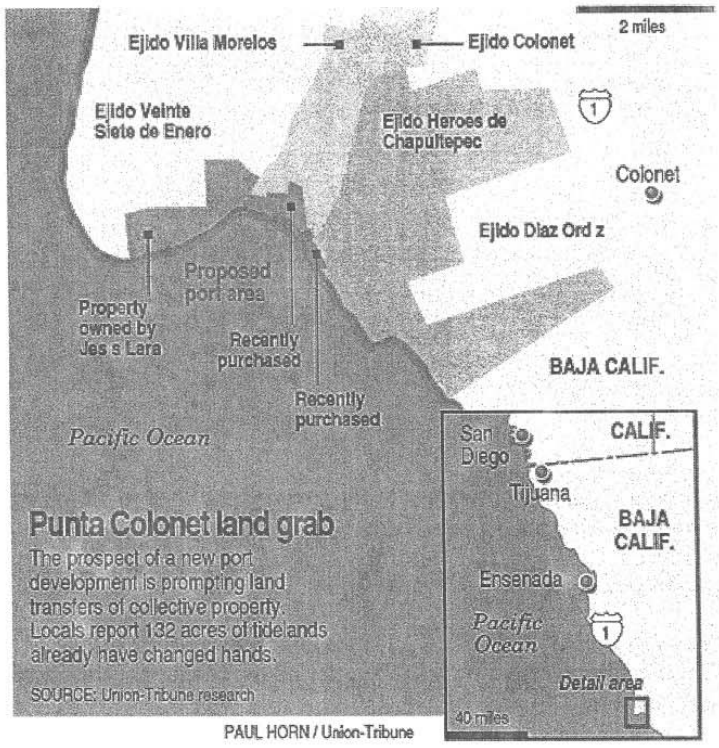
"The coastal property that was sold is common area belonging to all (22 members). Nobody complained before, but now money's involved."

Interest in Punta Colonet continues to grow among visitors and locals alike, Lara said. Representatives of four of the *ejidos* and a group of business leaders from San Quintin, the coastal town to the south, met with him recently to learn what he knows about the project and the land transfers.

Lara has no plans to sell his cliff-top property, which extends to the tidelands below that will make up the bottom of the U-shaped facility.

"I won't sell," he said, "because I can't get now what it's going to be worth eventually."

▪Diane Lindquist: (619) 293-1812; **diane.lindquist@uniontrib.com**


2 miles
Ejido Villa Morelos
Ejido Colonet
Ejido Veinte Siete de Enero
Ejido Heroes de Chapultepec
Colonet
Ejido Diaz Ordaz
Proposed port area
Property owned by Jesus Lara
Recently purchased
Recently purchased
BAJA CALIF.
Pacific Ocean
San Diego
CALIF.
Tijuana
BAJA CALIF.
Ensenada
Pacific Ocean
Detail area
40 miles
Punta Colonet land grab
The prospect of a new port development is prompting land transfers of collective property. Locals report 132 acres of tidelands already have changed hands.
SOURCE: Union-Tribune research
PAUL HORN / Union-Tribune

The Cyclical Nature of the Shipping Industry

Shipping industry freight rates move in cycles of several years where high rates attract investment in new tonnage which results in over-capacity which results in lower rates and lower profits. Currently, it appears that the current cycle has already peaked and is starting back down. With 700 new container ships being built and launched into service., we are already seeing Trans Pacific rates dropping.

Shipping rates fluctuate markedly as one would expect in an open, competitive market place. Costs are also controlled by the market place. Cargo will move by the best routes possible as determined by reliability and costs. Reliability issues that affect schedules and/or cost increases can and do cause cargo diversion and different choices by carriers and the beneficial cargo owners.

Service providers do not get paid based on what a company can afford to pay at any particular point in a cycle but rather based on the value of the service as dictated by the market.

We have provided a few articles and quotes as well as a recent summary of various freight rates provided by SSY/London to illustrate the cyclical nature of our business.

Excerpts from Speech at the Faster Freight Conference
Evergreen Executive – March 2006

Significant Investment

"These improvements we believe are important steps in developing a sustainable container shipping industry that our children and grandchildren will depend on and be proud of. But as we have embarked on this mission, we are not blind to the cost.

To give an idea of the cost, I will take our vessels for an illustration. The investment in new features costs an estimated US$5 million for each vessel, plus US$400,000 per year for maintenance. Based on an economic life of 20 years, each vessel is estimated to cost US$13 million additional. There are about 5,500 container vessels sailing the globe today. If we equip all these vessels with the same equipment, the cost will amount to more than US$70 billion.

This is a huge cost for container carriers – an industry with low profit margins. As we all know from our industry publications and journals, container carriers are reported to have achieved record profits in 2004. But the "Who's Making Money?" survey of American Shipper magazine reveals an average profit ratio of around 10 percent for this "prosperous" year. During other years, average profit is more or less 5 percent. It is quite clear that container shipping is a low-profit business.

Industry Cost Concerns

In addition to the extra cost arising from environmental protection, we also face rising operating costs and maritime security investments.
According to the amendment to SOLAS from the International Maritime Organization, from December 2002 vessel crew, port staff, passengers, cargo owners, vessel owners, port authorities and all concerned maritime parties must work closely to strengthen maritime security. These measures included the installation of new facilities, the increase of minimum crew number from 13 to 17, advanced crew training and more stringent vessel examinations. We also must find a way to adopt new technologies for improving supply chain security, such as electronic container seals, GPS and RFID to monitor and track the movement of containers and shipment integrity. These programs are needed, but also expensive.

In the last 10 years, oil prices have tripled. It is widely believed that the era of high fuel cost has arrived.

The deterioration of the trade imbalance has caused a sharp increase in the cost to reposition empty containers. According to the Journal of Commerce, the container volume from Far East to the U.S. is 1.24 times the volume of cargoes from the U.S. to Far East in 1995. U.S. import container volume doubled that of export in 1999, and as of October 2005, the ratio has jumped to 2.75, revealing a worsening imbalance situation. And now the rail cost of a twenty-foot container move from Los Angeles to Chicago has increased over 50 percent. We have reached a tipping point.

World Shipping Council CEO Congressional Testimony March 30, 2006 "Cyclicality of International Liner Shipping"

Further, U.S. financial markets have demonstrated little enthusiasm for international liner shipping due to its high capital investment requirements, cyclicality, and intense competition, as well as the fact that other nations' tax laws are more favorable to shipping.
Chris Koch 3.30 Testimony

Shipping – still a good bet?

Tradewinds
The shipping industry is volatile, cyclical, fragmented, heavily regulated, over capitalised and generally misunderstood but if investors choose carefully it can still be a good punt, according to Bergesen Worldwide Gas (BWGas) deputy chairman Andreas Sohmen-Pao.

Speaking to guests at a Shipping and Energy dinner hosted by the Norwegian British Chamber of Commerce Sohmen-Pao described his feelings on the current market as "happy but nervous."

He explained that the challenge for his and other companies now is that the fundamentals are promising but asset prices are hard to justify and explain over a long period of time.

"That is conundrum shipping companies are facing. How do we reinvest profit making without creating problems for the future? We are feeling that tension now more than ever."

He said: "Investing in shipping can undoubtedly be a very positive experience. The fundamentals are generally still sound. Some of the traditional reasons for avoiding shipping as an investment like volatility, fragmentation, and a lack of understanding may still exist but they are changing for the better."

But he cautioned that if the market comes under pressure the differences between companies will be all the more visible.

Who'll get caught without their kit?"A rising tide has lifted all boats but when the tide begins recede we will start to see who is swimming naked."

As a shipowner Sohmen-Pao highlighted some of the challenges facing the industry. He spoke of the volatility and cyclicality of the business giving the example of VLCC rates between December 2004 and January 2005 shifting from $250,000 per day to $40,000 per day and back to $100,000 per day in a few weeks.

But he said: "Volatility can be very rewarding if one is positioned appropriately," adding that it the heightened volatility offered by the shipping market might add some spice to an investors portfolio. .....

Dry Bulk Market

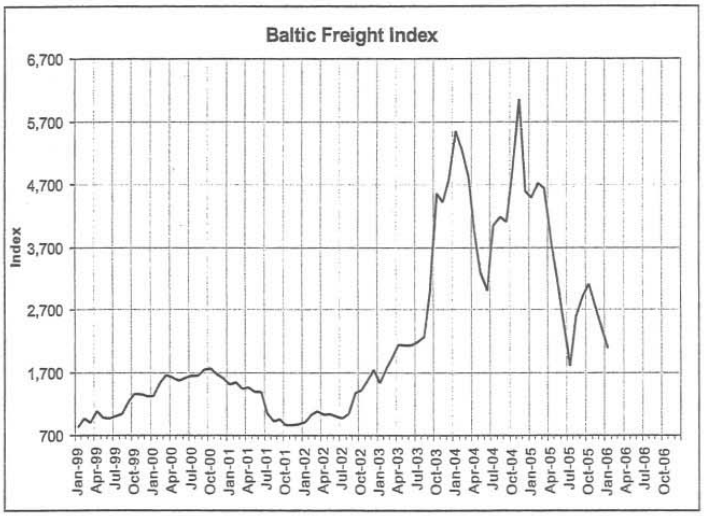
Representative Rates Last Day of Month	Jan-04	Jan-05	Nov-05	Dec-05	Jan-06	06/05%
BDI (4/1/85=1,000)	5,551	4,488	2,770	2,407	2,081	-46.4%
Grain 55,000 US Gulf/ARA	$40.75	$37.50	$21.68	$20.93	$17.53	-44.2%
Trans-Atlantic Round - Panamax	$47,225	$37,456	$17,817	$16,630	$11,467	-55.6%
Grain 52,000 US Gulf/Japan	$70.44	$60.65	$42.15	$39.47	$32.60	-34.9%
Trip Cont/Far East - Panamax	$53,447	$41,441	$22,333	$19,788	$13,935	-52.3%
Grain 54,000 NPAC/South Japan	$45.10	$35.59	$24.15	$25.17	$23.70	-29.3%
Trans-Pacific Round - Panamax	$44,080	$31,806	$16,879	$17,917	$15,459	-43.7%
TC Trip Far East/Cont 70,000	$41,393	$30,328	$13,172	$15,406	$14,297	-49.2%
Iron Ore 150,000 Tub/Rotterdam	$24.87	$20.97	$13.58	$11.33	$10.93	-46.0%
Iron Ore 140,000 Tub/Beilun+Baoshan	$42.63	$37.50	$27.06	$22.46	$21.99	-40.1%
Coal 140,000 Richards Bay/Rotterdam	$26.66	$19.36	$13.82	$11.05	$11.00	-42.9%
12 Month T/C modern type - 20/25,000	$17,000	$18,500	$10,000	$10,000	$9,500	-45.9%
12 Month T/C modern type - 25/32,000	$21,000	$20,000	$12,500	$11,500	$11,000	-42.5%
12 Month T/C modern type - 40/49,000	$30,000	$27,500	$14,500	$13,500	$13,000	-50.9%
12 Month T/C modern type - 50/56,000	$35,000	$31,000	$16,500	$15,500	$15,250	-50.0%
12 Month T/C modern type - 74,000	$46,000	$37,000	$17,750	$17,000	$15,250	-54.1%
12 Month T/C modern type - 170,000	$77,500	$70,000	$36,500	$33,500	$30,500	-52.1%
SSY Superhandymax Index/BSI	$34,254	$29,055	$19,334	$18,350	$14,622	-36.8%
SSY Atlantic Capesize Index (2/10/89=5,000)	17,385	15,448	10,021	7,964	7,670	-48.4%
SSY Pacific Capesize Index (6/1/97=4,114)	15,866	12,482	8,618	6,515	6,166	-47.8%
380 cSt Rotterdam/tonne	$129.00	$158.00	$250.00	$262.00	$296.00	+65.8%

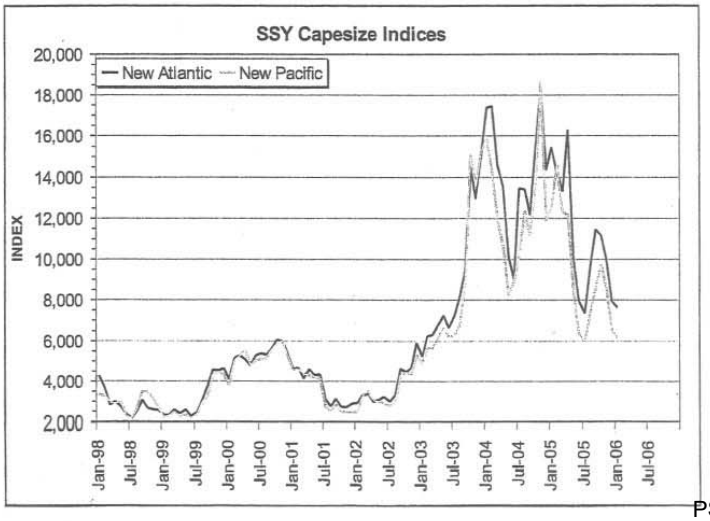
Trend Reversal or Temporary Spike?

After three months of almost continued decline, freight rates have rallied following the end of the Chinese New Year holidays. At time of writing, the Baltic Dry Index had recorded its longest sequence of daily rises in 6 months and also its biggest daily rise (142 points) since February 2005.

The latest increase has been led by the Capesize sector, where average daily earnings have jumped by 66% since the end of January. While iron ore movements into China ahead of the anticipated rise in annual contract prices have contributed to the higher freight rates, together with firm demand for steam coal, tonnage availability has been strongly influenced by renewed port delays in Australia and China. For example, SSY estimates that at an average of 9-10 days the combined delays at the coal and iron ore terminals of East and West Australia have been at some of their highest levels in the past 2 years.

Inevitably this has had greatest impact on Pacific rounds, which have more than doubled since the start of February (to $48,000/day)





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Dry Bulk Market

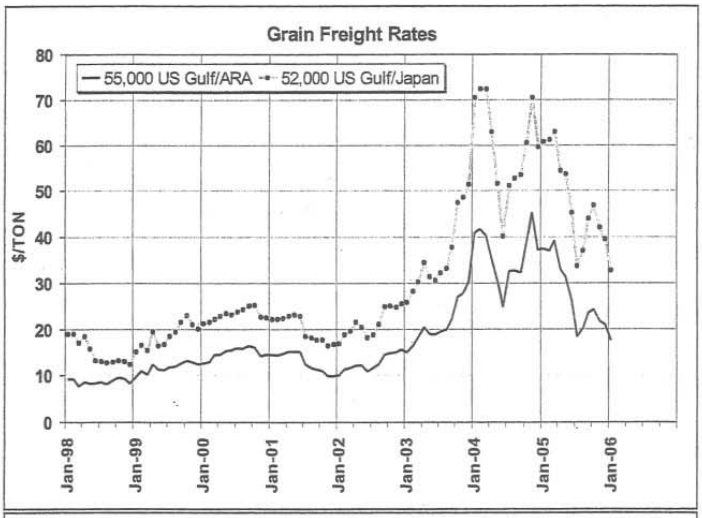
and are now trading at a premium to the transatlantic market.

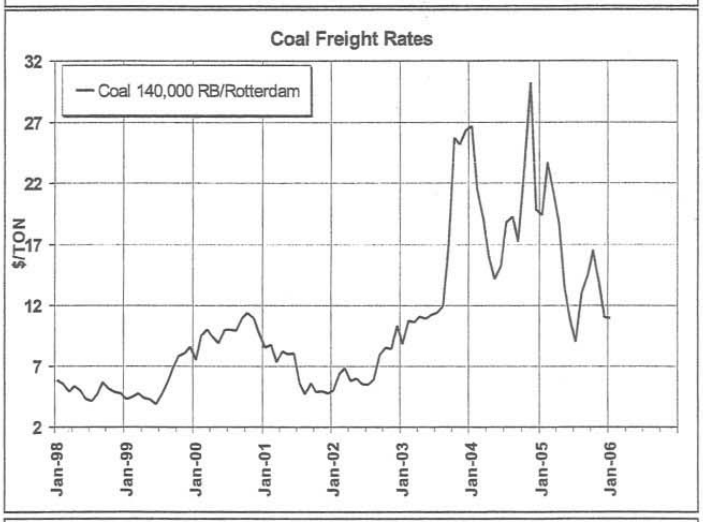
Panamaxes have also risen over the past month, but at a much slower speed than the larger size range and have only just surpassed their mid-January levels. As a result the Cape:Panamax average earnings ratio has widened from 1.7 to 2.7. Ordinarily such a spread would encourage cargo splitting, but current waiting times at key load and discharge ports in the Pacific may act to discourage charterers from such a strategy for the time being.

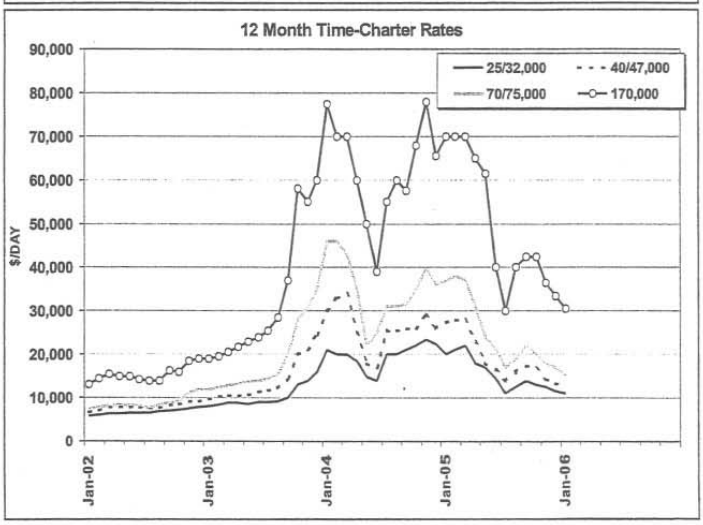
To date, much of the increased Panamax chartering activity has been focussed on short period in the Pacific, but greater strength is now being transmitted to the Atlantic where owners will be looking to the forthcoming Latin American grain season for fresh impetus. However, as outlined on page 8, the prospect is for limited yr-on-yr growth in Latin American exports, especially when compared with the corresponding rises in Panamax and Handymax supply.

Handymax rates have been the slowest to respond to the recent increases, with the Baltic Supramax Index still 8-9% below its mid-January level and average earnings for this vessel type trading at a discount to Panamaxes for the first time since October last year. Such an increase in competitiveness is likely to boost demand for these units.

While the latest upward movements in freight rates have demonstrated that the dry bulk market is not yet in a state of over-supply, the prominent role played by port congestion in tightening tonnage market balances must create doubts as to the longevity of the latest rally. Certainly, with fleet supply continuing to grow at a rapid pace, it could be dangerous to regard the latest increases as a sustained reversal in the downward trend.







THOMAS F. PAUL+
ROBERT W. NOLTING
MARC E. WARNER
DONALD P. MARINKOVICH
DAVID C. BRATZ✧
ERIC R. McVITTIE+
GAIL M. LUHN¤

OF COUNSEL
RICHARD W. BUCHANAN

LE GROS BUCHANAN & PAUL

LAW OFFICES
SINCE 1890

701 FIFTH AVENUE
SUITE 2500
SEATTLE, WASHINGTON 98104-7051

CAREY M.E. GEPHART ŧ
MARKUS B.G. OBERG
SVETLANA P. SPIVAK •
ROBERT P. ZARKOS

✧ALASKA & WASHINGTON
•OREGON & WASHINGTON
ŧ IOWA & WASHINGTON
+ALASKA, OREGON & WASHINGTON
¤COLORADO, KENTUCKY & WASHINGTON
ALL OTHERS WASHINGTON

TELEPHONE: (206) 623-4990
FACSIMILE: (206) 467-4828
INTERNET: seattle@legros.com
WEB SITE: http://www.legros.com

April 19, 2006

Mr. Michael Moore
Vice President
Pacific Merchant Shipping Association
100 West Harrison Street, Suite S 560
Seattle, WA 98119-4135

RE: Pilot Liability Questions

Dear Mike:

As part of the ongoing tariff negotiations, the Puget Sound Pilots ("Pilots") are arguing that they are: (1) subject to greater liability risks; (2) under sharper scrutiny by agencies such as the FBI, the EPA and the Washington Department of Ecology; and (3) facing financial ruin based on the increased liability and lack of either employer or insurer indemnification. You have inquired whether there have been any significant recent changes in either federal or Washington State law increasing the liability exposure of the Pilots. After completing a survey of the law, we conclude that there has been little, if any, change since the last tariff rate negotiations.

The Pilots contend that they now face criminal prosecution for environmental spills occurring on their watch. A review of federal environmental statutes, including OPA and CERCLA reveals, no change in pilot liability. The Oil Pollution Act ("OPA") was enacted in 1990 in response to the Exxon Valdez spill in Alaska. OPA provides liability for all oil spills occurring on navigable waters. Generally liability under the statute applies to the vessel and the vessel's owners. OPA provides a limitation to liability if the vessel owner can show that a third party caused the spill. Under the Federal Water Pollution Control Act, a direct predecessor to OPA, a pilot is not a third party for liability purposes. Rather the pilot is deemed to be the vessel owner's agent and any spills occurring on a pilot's watch are the responsibility of the vessel owner. This policy also appears to apply to OPA as no pilot has been held liable as a third party since the statute's inception in 1990. The Comprehensive Environmental Response Compensation and Liability Act (CERCLA), enacted in 1980, provides liability for hazardous substance spills on navigable waters. Individual liability has been applied to vessel owners and captains, but it has never been applied to vessel pilots. Neither OPA nor CERCLA have been amended since the last tariff was negotiated.

The Pilots also argue that the federal government has recently criminalized simple negligence under 18 USC § 1115. This statement is extremely misleading, certainly as it applies to pilots, and it is clear that the Pilots misunderstand the application of the statute. 18 USC § 1115 was enacted over 100 years ago and cannot be considered a new effort to criminalize negligent behavior. The statute applies to negligence resulting in the death of persons, not for negligence resulting in property damage, vessel damage or environmental damage from oil spills. 18 USC § 1115 does not provide any new or novel areas of liability for the pilots. Further, no pilots have been prosecuted or found criminally liable under this statute.

A review of other civil and criminal federal legislation reveals little to no change in pilot liability since the last tariff negotiations.

Similarly, the Pilots do not face increased liability under Washington State law. In Washington, once a pilot boards a vessel, they are considered to be a servant of the vessel and the owner/operator. RCW 88.16.188 further limits a compulsory pilot's liability to $5000 for damages or loss occasioned by the pilot's errors, omissions, fault or neglect in the performance of their duties. In 2005, the Washington State Legislature expanded RCW 88.16.188 to include all pilot trainees, thus expanding the liability protection pilots enjoy within the state.

In conclusion, although the Pilots argue that their potential exposure to liability has greatly increased in the last year, there has been no actual increase in pilot liability or prosecution at either the federal or the state level. In fact, during the course of our research, we were unable to find any recent cases involving pilots from any state where the pilot was either civilly or criminally prosecuted under State or Federal law. The Pilots' financial despoliation argument is also without merit. The Pilots are not the deep pockets sought to remedy the costs of environmental spills and their liability is limited by Washington State statute for any property or vessel damage caused by pilot negligence.

There appears to be little reason to adjust pilotage tariff rates based solely on theoretical arguments of increased liability and financial ruin.

Very truly yours,

LE GROS BUCHANAN & PAUL

By: Robert W. Nolting
ROBERT W. NOLTING

RWN: js

PILOT APPLICANT POOL

PSP has argued that there is an insufficient pool of resources from which to attract new pilots. Consequently, the position is made that greater pay is necessary to attract more candidates from this limited pool. In our research, we can find no proof that there is or in the foreseeable future will be insufficient numbers of qualified candidates to apply for pilot jobs here. The recent examination involved 21 candidates with 16 passing and 6 currently training leaving 10 on the waiting list. If there is hard evidence that a shortage exists and that the lack of interest is due to compensation, then the Commission and we will most certainly be interested in seeing it.

We believe the lifting of the requirement for federal pilotage coupled with advertising that includes a full description of duties, benefits, and workload information will attract more than enough highly qualified candidates to this desirable area.

We note that there are five Alaska pilots in PSP or on the waiting list. Captains Sanders, Mork and Anderson are all current members of PSP. Capt. Mork was the most recent entrant having joined the group in July of 2001. Captains Grobschmit and Hannuksela took the exam in November 2005 and are currently on the waiting list to enter the training program. Capt. Grobschmit is in fact the next on the list to enter the program when the Board sees fit to start the next trainee. All five of these pilots are or were members of the Alaska Marine Pilots, LLC group in western Alaska, the same group to which Capt. Moreno belongs. While Capt. Moreno apparently chose not to take the November examination due to "…lower pilot earnings, the workload and the schedule of the Puget Sound Pilots," it appears these factors were not enough to discourage Captains Grobschmit and Hannuksela from taking the exam.

To our knowledge no Puget Sound Pilot applied to become a San Francisco pilot. This is relevant because of statements made by PSP as to how much more attractive the SF pilot situation is. Lastly, even Captain Sweeney, who asked the Commission recently "why would anyone pass up $400,000 to apply here" was unable to answer why she did exactly that.

We find the following information relevant to further discussion of this issue.

Masters, Mates and Pilots – US Department of Labor on Maritime Compensation

Salaries can vary widely depending on the size and type of vessels involved. Captains with many years of experience working on container ships, oil tankers, or passenger ships may earn $100,000 or more each year. Captains of tugboats also tend to earn higher pay that approaches $100,000. Captains in the Washington State Ferry fleet are making in the neighborhood $80,000 with overtime that may bring them closer to $100,000.

The U.S. Department of Labor estimates that ship captains, mates, and marine pilots earned an average salary of $52,440 in 2004."

Economic Incentive: Pilots are compensated at least 4 times the average 2004 salary on record with the DOL; this is without comparing workloads and the attractiveness of the area.

Coast Guard records reflect approximately 16,000 mariners fully qualified to sail. MARAD helps provide a mariner labor pool by operating the U.S. Merchant Marine Academy and supporting mariner training at state maritime academies and industry schools that produce approximately 1200 fully qualified mariners each year.

Tug boat captains and ferry masters have full responsibility for the operation of their vessels and are unprotected by any statutory limitation on liability. They are also responsible for the general administration of their vessel, including employee relations and varying degrees of paperwork. The deep draft master also has employee and paperwork responsibilities and most of their work is at sea for extended periods.

VESSEL SIZE AND MANEUVERABILITY

There is no doubt that ships are getting bigger, and the vast majority of the bigger ships, being newer ships, are also **state-of-the-art. Many of them have built-in redundancy and propulsion and navigation features that generally make them more maneuverable. This is particularly true when comparing them to older, deep draft vessels that had lower power-to-size ratios, fewer propulsion redundancies and/or protections and were assisted by less capable tugs.** Many of these newer vessels have twin screws and some, particularly the cruise ships with **Azipods**, can turn 360 degrees in their own length. The following are a few examples of the larger, state-of-the-art vessels.

Totem Ocean Trailer Express (TOTE)

TOTE's new ships were also designed with the environment foremost in mind, with features such as: double hull fuel compartments; state of the art sewage treatment; shoreside trash disposal; fuel efficient, reduced emissions diesel electric system; fresh water ballast system with no discharge to the environment; and **navigation and propulsion system redundancy.**

Propulsion Plant includes:

- Twin-screw diesel-electric with total installed power of 52.2 mW
- Main engines: 4 (each) MAN B&W 9L 58/64 and 2 (each) MAN B&W 9L 27/38 medium speed diesels at 400 and 720 rpm respectively
- The diesel engines are designed to operate on both Heavy Fuel Oil, ISO 8217 Grade RMH 55 or Marine Diesel Oil, ISO 8217 Grade DMC
- The electric propulsion plant is an Alstom 6.6 kV system; each motor is synchronous, variable speed, reversible, brushless, double-wound and rated at 19.75 mW at 125 rpm
- Synchroconverters facilitate starting and speed control of main propulsion motors

Navigation and Communications

- SyShip Route Planning computer system
- Global Maritime Distress and Safety System (GMDSS) Radio System
- 3 radar systems, one 10 cm and two 3 cm systems, all with Collision Avoidance System (CAS)
- Dual adaptive gyro-pilot steering systems

Endeavor Class Tankers

The next generation in world class crude oil tankers, these vessels started operations in Puget Sound in 2001. Designed and built based on proven technologies, these vessels are not only double hull per OPA 90 but also have major propulsion system redundancy and state-of-the-art control systems.

In addition to the mandated double hull, these vessels are designed with fully independent engine rooms, with **redundant propulsion**, **twin steering systems** and a **separate bow thruster.** This system includes **redundant, controllable reversible pitch (CRP) propellers**, each driven by a separate engine. These CRP propellers can go from **full ahead to full astern in a matter of seconds**. These propellers further **enhance maneuverability** and also allow for **shorter stopping distances** in the event of an emergency. The separate **bow thruster provides extraordinary maneuverability in tight conditions**. At zero speed, the vessel is able to **turn 360 degrees in its own length**.

Completing the redundant design are **two completely independent rudders each with its own steering system**. Besides the redundancy, these rudders also allow the tanker to **turn more quickly particularly in emergency situations**.

These new ships also include the latest navigational tools, including Electronic Chart Display and Information System (ECDIS) and three automatic plotting collision avoidance radars.

Polar Tankers has fully integrated tug boat masters and harbor pilots into its bridge team management training program.

Cruise Ship AMSTERDAM

Propulsion System
- Diesel generators (2 x 11.5 MW / 15,400 Hp & 3 x 8.6 MW / 11,500 Hp)
- Propulsion Electro Motors (2 x 15.5 MW / 20,800 Hp)
- Fixed blade pull Azipod[1] system

Steering Particulars
- **Azipod[1] propulsion** fitted with semi balans rudders
- **Bow Thrusters -- 2 x 1900 kW (2500 hp)** – effective to 8 knots – 6 second delay to full thrust

Cruise Ship OOSTERDAM

Propulsion System
- Diesel generators (3 X 11,520Kw / 46,310 Hp & 2 x 8640 kW / 23,155 Hp)
- Propulsion Electro Motors – Gasturbine (1x 14,000 kW / 18,760 Hp)
- **Azipod[1] system**

Steering Particulars
- **Azipod[1] propulsion (2 pulling)**
- **Bow Thrusters -- 3 x 1900 kW (7500 hp)** – 100 % effective until 6 kts

Note 1: The Azipods® are azimuthing electric podded propulsion units that can rotate 360 degrees and are capable of unlimited 360 degree steering. Because of this, the need for rudders is eliminated. The pods contain an AC electrical drive motor coupled to a short drive shaft connected to a fixed pitch propeller. This eliminates the need for any mechanical gearing. **Azipod propulsion units allow huge cruise ships to make a full turn without moving forward.**

Cruise ship DIAMOND PRINCESS

Propulsion System

• Propulsion type:	Diesel Electric and Gas Turbine
• Diesel generators:	2 x 9450 kW and 2 x 8400 kW
• Gas Turbine:	1 x 25000kW
• Propulsion Electric Motors:	2 x 20000kW @ 145 rpm
• Full Sea Speed:	22.1 knots (138 rpm)
• Propellers:	2 Fixed pitch keyless type, 6-bladed, inward rotating

Steering Particulars

• Rudders:	2 Mariner Full Spade type
• **Thrusters:**	**Bow: 3 x 2200 kW** **Stern: 3 x 1720 kW**

TUG RESOURCES

It has been suggested that tug capability has not increased commensurate with the size and difficulty of maneuvering large vessels. However, bigger ships, also being newer ships, have state-of-the-art propulsion and steering systems, and are themselves more maneuverable. Additionally, tugs have gone from single screw and small horsepower to double screw to a growing mix of propulsion designs that provides more power and capability where and when it is needed.

As reported to Congress in 1998 regarding the International Tug-of-Opportunity System:

> "The Pacific Northwest is the home base for some of the largest and most capable tug and towing companies operating along the Pacific coast of both the United States and Canada. These companies include Foss Maritime, Crowley Marine Services Inc., Seaspan International Ltd, and Rivtow Marine Ltd. Services offered by these large tug and towing operators run the full spectrum of tug and towing activity. Besides these large operators, numerous smaller tug and towing companies operate throughout the area. Many of these smaller operators engage in local harbor assist work whereas others engage primarily in point-to-point towing."

Foss Maritime:

Foss operates the most versatile and advanced fleet of tugs in U.S. waters. In the Puget Sound region, Foss operates a fleet of tugs with up to 8,000 horsepower that can safely escort vessels and then dock them at any Puget Sound port.

Enhanced tractor tugs - The Foss fleet includes **two enhanced tractor tugs**. Both tugs feature Voith Schneider **cycloidal propulsion systems**, which are driven by **8,000 horsepower** engines. The enhanced tractor tugs are the largest in the world and were designed specifically for tanker escorts.

Tractor tugs - Foss also operates a fair number of **tractor tugs** with Voith Scheider **cycloidal propulsion systems in the 4000 to 5000 HP range**. The tractor tugs can produce **full thrust in any direction**. Exceptionally maneuverable, the tractor tugs can safely move vessels through confined channels, and are stationed at major ports on the west coast.

Foss Maritime currently has the following tugs available in Puget Sound.

	HP	Bollard Pull	Propulsion
Lindsey Foss	8000	87 tons	Tractor VSP
Garth Foss	8000	87	Tractor VSP
Wedell Foss	5000	57	Tractor Plus
Henry Foss	5000	57	Tractor Plus
Pacific Explorer	4400	60	Tractor ASD
Andrew Foss	4000	50	Tractor VSP
Jeffrey Foss	4300/5400	71	Conventional
Barbara Foss	4300/5400	71	Conventional
Emma Foss	3000	41	Conventional
Shelley Foss	3000	40	Conventional
Benjamin Foss	2150	27	Conventional
David Foss	2150	27	Conventional

Crowley Maritime:

Crowley owns and operates one of the most advanced fleets of ship assist and escort tugs in the world. The diversity of the environments and customers Crowley serves demonstrates that versatility is one of their strengths. The fleet stationed in the Pacific Northwest is well prepared to work under the very distinct environmental and physical conditions of the area.

In the North Puget Sound, Crowley assists large tankers into and out of berths and provides both tethered and untethered escort services throughout rugged coastlines and under very extreme weather conditions. Protector and Response Class tugs have been specially designed to efficiently escort and assist tankers in the region, and are equipped with the latest technology in navigation, communications and firefighting equipment.

In Seattle, Tacoma and other surrounding smaller ports in the region, Crowley primarily provides escort and docking services for tankers, container ships and other vessels as they enter and depart from the busy harbors.

In 1994, Crowley operated a harbor fleet of twin-screw tugs:

Apollo	2,000 HP
Puerto Nuevo	2,500 HP
Howard H	3,500 HP
Several "Robin Class" tugs	4,800 HP
Several "Invader Class" tugs	7,200 HP

In 1995, the lower HP tugs were used less frequently, and Crowley used primarily:

Howard H	3,500 HP
"Robin Class" tugs	4,800 HP
"Swift Class" tugs	5,200 HP
"Invader Class" tugs	7,200 HP

In 1997, the same classes of tugs were used and the Saturn and Spartan were re-powered to 3,500 HP and added to the fleet.

By June of 1998 the VS Tractor tug Protector (5,500 HP) was operating in Puget Sound

By early 2000, two 4,800 HP VS "Harbor Class" tractor tugs had been added to the fleet, primarily for the Tacoma market.

For 2006, Crowley has the following tugs available in Puget Sound:

(1) "Response Class"	**7,200 HP**	**VS tractor tug**
(2) "Harbor Class"	**4,800 HP**	**VS tractor tugs**
(2) "Protector Class"	**5,500 HP**	**VS tractor tugs**
(1 plus[1]) "Invader Class"	**7,200 HP**	**twin-screw**
(1 plus[1]) "Robin Class"	**5,000 HP**	**twin-screw**

Note 1: Periodically, Crowley has more than one Invader and Robin Class tug available in Puget Sound

PMSA
PACIFIC MERCHANT SHIPPING ASSOCIATION

May 6, 2019

Sheri Tonn, Chair
Board of Pilotage Commissioners
2901 Third Avenue, Suite 500
Seattle, WA 98121

RE: PMSA Comments on Setting the Number of Pilot Licenses

Dear Chair Tonn,

Thank you for the opportunity to comment in advance of the Board's consideration of the Puget Sound Pilots' request to increase the number of pilots licensed and regulated by the Board. PMSA member companies, both foreign and US flagged, depend on the Board of Pilotage Commissioners to ensure that state-licensed pilots are safe, efficient, and operate in a fiscally responsible manner.

The Pacific Merchant Shipping Association (PMSA) is pleased to submit these comments consistently and in conjunction with submission of several data requests and comments leading up to this submission date to assist the Board of Pilotage Commissioners (BPC) in making an informed decision.

We would note that while PMSA has not yet seen the formal submission by the Puget Sound Pilots (PSP) to increase the number of pilot licenses, we are pleased to continue to work with the Board and appreciate the Board's request for our participation in this process. As a practical matter, while this means that these comments cannot be responsive to any specific claims by the PSP, and PMSA reserves the right, consistent with our understanding of the process set forth by the Chair, to amend and revise our comments upon actual receipt and analysis of the PSP submission. Please find below our recommendations and observations regarding the setting the number of pilot licenses and the current state of pilot licensure in general.

In addition, we refer the Board to many past PMSA submissions which include similar questions, observations and analysis relevant to the discussion of the number of pilots licensed today. We have enclosed just two of those past submissions with this comment letter for easy review and hereby incorporate those comments by reference **(See enclosure 1)**.

PMSA looks forward to further participation in this process.

Optimize and Efficiency Mandates

RCW 88.16.035(1)(d) mandates the BPC to:

> "*determine from time to time the number of pilots necessary to be licensed in each district of the state to optimize the operation of a safe, fully regulated, efficient, and competent pilotage service in each district*".

We include the above RCW language to emphasize that optimize and efficiency are mandated. This sets a high bar but points out that many aspects of the current delivery of pilotage services require efficiency reviews to identify and implement improvements. Clearly, the "optimize" and "efficient" mandates shall not undermine the safety mandate but rather these RCW mandates shall all be implemented simultaneously.

When all data requests and analysis are addressed and all questions are answered by PSP, we and others can provide more comprehensive recommendations as to how the BPC can better address these mandates. Absent a bona fide emergency, the number of pilots should not be reset without addressing all related statutory requirements.

There Is Sufficient Time to Take Measured Approach

With more BPC discussion and interest than in the past there is an opportunity to address these mandates in a more specific and meaningful fashion. Without completing an analysis of all relevant data it is difficult to make a fully informed decision. We recommend the BPC take enough time to allow this to happen.

Based on discussions as BPC meetings, it is likely that trainees can't be licensed fast enough this year to fill the 4 current openings in addition to the openings created by expected pilot retirements over the next year or so. There is clearly no urgency to increase the "targeted number" of pilot licenses anytime soon. Indeed, if there is an area to address with a sense of urgency it is the pace of licensing and upgrades.

Individual Pilot Utilization is Extremely Uneven and Inefficient

Pilot utilization is extremely uneven, with some working much more than others. ***The most productive pilot in 2018 safely completed 223 annual assignments and 25 assignments in one month without violating rest rules. 15 pilots completed 165 or more assignments in 2018 with many completing more than 20 assignments in a single month.***[1]

Conversely, ***at the low end, one fully available fit for duty pilot performed only 90 assignments in 2018 and a low of 2 assignments in one month. In 2019, this same pilot performed only 3 assignments in first two months of the year.*** For context, the 30 most productive pilots in 2018

[1] All assignment data references are to BPC Staff Reports unless otherwise noted.

averaged 167.5 assignments each. The remaining pilots averaged only 104 assignments. Adjusting for things like medical and comp day burning, the remaining less productive, healthy non-retiring pilots averaged only 127 assignments.

We have been assured that no pilot, even the busiest, has violated any rest rules. A commissioner's question as to whether there was any set minimum or maximum number of assignments per pilot and any corresponding incentives remains unanswered. Regardless of whether a pilot works 223 assignments or just 90, they are reportedly paid the same. We don't know why the distribution of assignments is so uneven, particularly amongst healthy ready for duty pilots.

The BPC could establish objective benchmarks for efficiency and optimization. One way in which this could be done is by setting a target assignment level (TAL) by the most productive or the mid-range average in order to calculate the number of pilot licenses needed at those productivity levels.

2018	Number of Assignments	Number of Pilots Needed
Most Productive Pilot	223	32.8
Average of Top 30	167.5	43.7
TAL	145	50.4

As the above chart shows, such a simple objective analysis would suggest that the target assignment level could be increased and number of pilot licenses decreased.

Pilot Utilization Rates and Call Backs

At a recent board meeting, several commissioners expressed confusion as to why low work level months resulted in more call backs and accumulation of Comp Days. PSP answers were largely anecdotal listing possible reasons why it could be this or that. One commissioner rightfully stated the need for data and specific answers rather than a list of "could be" possibilities from PSP. At the time of this submission, we still don't have the answers.

The facts are that PSP reported that March 2019 had 530 assignments ranging from a low of 8 to a high of 23 assignments in any one day. June of 2018 involved an astounding 140 call backs or nearly five call backs every day. October 2018 was a low workload month yet it involved call backs for a whopping 21.5% of all assignments. Call backs grew 53% in 2018 over 2017.

These statistics raise many questions: With half the pilot corps reportedly "on duty", why would 78 call backs be required in March 2019? What created all the call backs even in low workload months? Do comp days, lifestyle pilots, vacations and meetings create call backs? Where are the on duty pilots during call backs? How much of this is due to lack of on duty pilot availability, unfilled pilot licenses, and/or changes around the "straight rotation" policies of PSP. Would eliminating efficiencies like round trip cruise assignments, reducing multiple assignment day opportunities, minimizing repos and travel lead to fewer call backs?

It seems impossible to either ensure PSP optimization or efficiency without first addressing these basic facts and questions regarding Call Backs.

What is a Pilot Duty Day? What if Pilots All Stood Duty Half the Year?

According to a BPC staff communication on May 3rd, there is currently no validated data on how many total duty days are stood in a year or each day or per pilot. Without this key data, the BPC can't make an informed decision about watch-standing or the number of pilots.

We acknowledge there is a difference between being on call/duty somewhere in the area waiting for an assignment (with lead time) versus being at the pilot station, traveling, piloting or resting. The pilots on average pilot fewer days than the average number of assignments per year. Why? Because of cancelations and multiple assignment days.

The BPC has adopted the following Policy Statement:

> ***"It is the policy of the Board that one day of duty time equates to one day of sea service…".***

That means duty time is the equivalent of being on a ship. PSP describes duty as two weeks on call and two weeks off with two weeks of vacation that can be taken on "duty days". However, the facts demonstrate that a day "on call" not performing an assignment is not equal to a day performing an assignment "at sea".

The average number of annual assignments per pilot is 145 meaning there are many "duty days" without an assignment or "sea service". Recall that cancelation assignments (no sea service) are included in this - 162 cancelations in 2018 per BPC staff reports which represents more than one pilot worth of assignments. In addition, the 145 number includes multiple assignment days such as the 5 assignment day in Tacoma example due to second pilot zone one jobs. The second pilot assignments are short (one hour). The most recent three-year-average included 552 second pilot assignments (PSP activity reports). This alone represents 3.8 full time pilots per the TAL but only involves 552 hours of bridge time which is less than one pilot.

PSP lists 365 duty/service on their financials going back decades. In recent BPC meetings, PSP states they stand 182 (sometimes 181) days of duty each year as an equivalent to the maritime tradition of half time on and half time off . That means that half the pilot corps should be available on any given day.

However, data summarized in BPC staff spreadsheets indicates that is not the case. If all BPC authorized slots were filled, then half the pilot corps would be 25.5 on duty each day at the current level set by the BPC. The number of pilots on duty each day should exceed the average number of daily 20 assignments by 27% thus providing a big cushion to cover the demand with minimal call backs. And, per BPC staff reports, 16.5% of assignments are cancelations or short

intra-harbor shifts which allow for multiple assignment days therefore requiring fewer daily pilots. This analysis reveals little need for the number of call backs being reported and highlights an area for BPC focus in order to meet the "optimize" and "efficient" mandates pointed out earlier.

Pilots on Duty Each Day at Authorized BPC Level	Average Daily Assignment Level	Average Daily Call Backs
25.5	20	3.2

Average Length of an Assignment:

Bridge time is logically the time that pilot service is provided. There is a difference between piloting and transportation time to and from the assignment. If the total is to be considered in setting the number of pilots, then the data needs to be accurate and validated. PSP is the collector and reporter of this data however there has not been a third-party analysis or validation of this data, including by the BPC.

PSP's reported numbers span a rather large range:

- PSP: Jan - June, 2015 Submission **(see enclosure 2)**
  - 5.06 bridge hrs + 1.97 travel hrs = **7.03 hrs**
- PSP Hearing Presentation Nov 2016 **(see enclosure 3)**
  - 5.14 bridge hrs + 2.6 travel hrs = **7.76 hrs**
- PSP March 2019 BPC meeting – PSP President
  - **9.5 hrs** (this would represent a huge increase in travel time over 2015)

Given the importance of the rest rule, the recent statutory changes to the rest rules, and the reliance of the rest rule on determining the length of the assignment as defined by the BPC, it is important to have accurate information. We have checked the Washington State Department of Transportation (WSDOT) and Puget Sound Regional Council (PSRC) for changes in travel time and find no justification for a reported doubling of travel time since 2015. PSP has stated numerous times their assignments run through the 24-hour clock and most of that is off peak where travel times remain the same.

Furthermore, assignment zone is directly correlated to bridge time. A significant number of total assignments are cancelations and short zone one assignments particularly since the introduction of second pilot assignments. That means less piloting, less workload and thus fewer pilots, not more.

Vacations

Every other Tuesday the entire pilot corps claim a full day of duty (24 hours), yet pilots report they stand 15 days of duty followed by 13 days of respite. a review of transition day assignments reveals that pilots average 14 days on and 14 days off. When tracked by the hour it becomes

clear that this is in addition to PSP reporting that pilots take two weeks of vacation each year mostly on duty days meaning duty days stood would be 168 and not 182.
By extrapolation, 50 pilot's times two weeks equals 100 weeks or 700 lost duty days. This represents another 3.8 pilot's worth of duty days. Once again, this points more to a reduction of pilot licenses rather than an increase and we recommend that the BPC review the impact of PSP vacation policy on its rotation.

Repositionings Are Not 'New News' to the BPC and Are Not Equal to Assignments

PMSA has only seen one year of repositioning data. We do know that were 2,559 arrivals in 2018 and 2,559 departures accounting for 5,118 assignments. In a perfect world, pilots would get to Port Angeles by completing a departure assignment at the start of their duty cycle and end a duty shift leaving Port Angeles on an arrival assignment. A perfect match would result in zero repositionings. Obviously, this cannot be done 100% of the time but there is insufficient data to identify dispatch changes which would minimize repositionings.

PSP has stated that bridge time plus transportation runs from just over seven hours (2015) to 9.5 hours (2019) plus required rest periods. These numbers are inconsistent and have not been reconciled or validated, and in any case greatly differ from repositioning.

A repositioning is not an assignment and has never been considered equal to an assignment. It is important to note that the BPC was informed about and has known about repositionings, meetings, and training along with numerous other non-piloting activities of PSP when setting the number of pilot licenses in the past. They are already factored into the current licensing baseline. Since the 145 TAL adjustment decision included consideration of repositionings, travel, meetings and training they should not be treated differently now.

Meetings, Delays, Call Backs and Reduction of Pilot Availability

Years ago, PSP declared the suspension of discretionary meetings during cruise ship season.

> *PSP 2009: during the shortage they stopped training and discretionary meetings during the summer of 2005.*

PSP acknowledged they attended discretionary meetings. The PSP President typically does not pilot and neither does the Executive Director. With only four to five office employees to supervise, there should be plenty of PSP representation from these two positions at non-discretionary external meetings in addition to their lobbyists and lawyers. Yet, we continue to see a large number of pilots listed attending a variety of meetings potentially causing shortages and call backs. Example: Monthly reports indicate that a highly compensated licensed pilot(s) is skipping assignments to presumably work on spreadsheets. This activity, if essential, should be completed in a different way and not by reducing licensed pilot(s) utilization.

"Lifestyle Pilots" – No Call Backs?

In the past year a new term has emerged: a "lifestyle pilot." Apparently, a "lifestyle pilot" doesn't want to or chooses not to take call backs. The inefficiencies of the PSP two-watch system does not require everyone on duty to be available for dispatch. This new dynamic is a troublesome issue. It is imperative that the BPC addresses the "lifestyle pilots" phenomenon within the context of setting of the number of pilot licenses.

Even PSP stated at an Fatigue Management Committee (FMC) meeting that their intent is not to staff to the peak. However, the outcome of allowing lifestyle pilots to push part of their annual workload onto other pilots would further undermine effective and efficient pilot utilization. be the creation of more and more lifestyle pilots.

The BPC might want to compare workload management of Washington State Ferries (WSF) masters/pilots that includes many more duty days at sea. WSF operates 20 hours out of every 24. Tugs and deep draft vessels typically use six months at sea rotations. In addition there are other modes (air, rail etc.) to analyze for relevancy to the BPC.

Annual Workloads

At the most recent BPC meeting, a PSP legal representative presented slides on watch-standing, including an overview and some metrics from other pilot grounds. We note there are significant difference between these pilot grounds, here are some examples:

- BC pilots fly 930 miles to get to their northern most assignment a much larger area than Cherry Point to Tacoma;
- Fraser River piloting area is more comparable to Long Beach JPS pilots who average 36.7 assignments per month (LB Port Commission Presentation) and peaked at over 40 assignments each per month averaging 2 hours each;
- Columbia River involves two pilot groups, a bar crossing and long river piloting assignments considered different than open steaming transits like some areas like the Great Lakes;
- SF piloting includes a lawsuit to gain transparency over actual assignment data – we can provide an overview of that if the BPC is interested.

PSP is on record stating there are no problems staffing to the peak:

> *"Except during the pilot shortage of 2004 to 2008 caused by an inadequate number of pilots being licensed, there have not been problems staffing to the peaks."*
> *(PSP March 9, 2009)*

Now, suddenly PSP can't staff to the peaks with the introduction of things like lifestyle pilots rejecting call backs. We would also point out to the BPC that PSP acknowledged in 2009 that during the shortage of pilots in the summer of 2005 they stopped training and discretionary meetings. PSP can make other internal adjustments as well, such as they take by scheduling their

internal Board of Directors meeting every month on Tuesday when the need for comp day pilots is very low.

The 10-hour Rest Rule Does Not Increase Assignment Workload

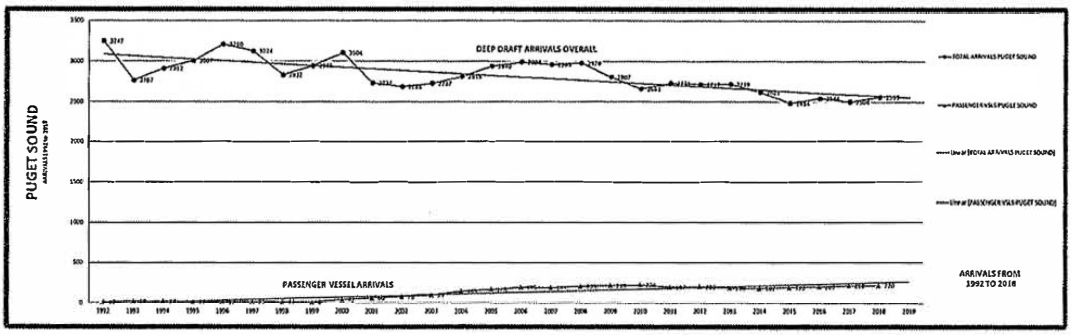
PSP reports successful implementation of the three and out rule over the past couple of years. In October of 2018, the 10-hour rest rule/policy was implemented per the BPC. These have both been formalized in the RCW per this just completed legislative session.

PSP has previously estimated that 500 assignments would be impacted by the 10-hour rule (Captain Carlson at BPC meeting). He explained this often can be just a few minutes. A pilot would therefore average less than one assignment per month where they would need to rest an additional one minute to one hour 59 minutes in order to take an assignment. PSP explained in these cases that the next pilot up gets the assignment or there can be a short delay for a grain ship shift but not a cruise ship assignment.

The annual assignment workload (currently targeting 12.1 assignments/month) does not change with this rest hour rule. That means pilots will have the same workload over a year or month as they do now. There is no data to support the need to add more pilots due to this rule.

Long Term Shipping Trends

Ship calls have been decreasing over the last three decades with the loss of over 900 cargo ship calls annually. Overall cargo ship calls in 2018 represented one of the lowest years in that timeframe. The introduction and growth of cruise ship calls softened the overall loss by 200 plus per year. This chart from the Marine Exchange described at a Harbor Safety Committee meeting tells the story:



The main reason 2018 and 2017 assignment totals weren't the absolute lowest level over this time period thus requiring fewer pilots is due to the introduction of second pilot assignments and an increase in cancelation assignments – both of these assignment types reduce the average bridge time and piloting workload.

Shipping trends and announcements are provided monthly by the NW Seaport Alliance and PMSA. The trends indicated fewer but larger vessels and a fairly slow growth in overall cargo. Oil tankers continue to decrease in numbers with the introduction of crude by rail and increased pipeline flows as well as the pending completion of the Vancouver airport fueling facility.

Given these realities, piloting work has been decreasing yet the BPC is being pressed to increase the number of pilots – why?

PSP Statement That They Are "Piloting on Demand" Does Not Match Industry Procedures

PSP continues to assert that they "pilot on demand". This is an undefined term that would imply that pilotage requests from vessels occur without warning or advance notice, but such an implication is untrue. Ship calls and movements require planning by many parties. PSP has handled over 5,000 assignments per year with excellent predictability: all arrivals, cruise, coastwise cargo, containers, two pilot transits, tidal sailings, Coast Guard advance notice, published schedules, Marine Exchange, AIS real time tracking, ship agents, longshore shift hours, berth availability changes.

PMSA has used a survey asking a number of questions regarding pilot ordering and schedules in order to validate that ship movement planning is more the norm than the exception **(see enclosures 4, 5, 6).** In addition, the NWSA publishes the ship schedule ETA's and ETD's which can be updated in the day(s) leading to the ship movements (schedules available on line to the public).

The result paints a picture of a far more organized and predictable system than has been described by the pilots for a good majority of the vessel moves. The system can and does provide planning lead times for all involved and lead times can be as long as weeks, months or in the case of cruise a year or more. This predictability means opportunity for more planning, more efficient dispatch and more lead time for personal choices in preparation for an assignment and fewer pilot licenses.

Setting the Number of Pilots is Separate from Ratesetting

Despite the lack of urgency, less shipping activity and fewer pilot assignments, we are concerned that PSP is pushing an artificially aggressive timetable to try and increase the number of pilot licenses in order to increase the tariff. The purpose should be to provide for safety and efficiency with an optimal number of pilots. All of the trends point to less bridge time, lower workloads and a long-term decline of ship calls. The mandate to identify inefficiencies in pilot utilization requires addressing at a minimum: call backs, comp days, dispatch, watch-standing, vacation, repositionings, transportation policies and procedures. This should be allowed to occur on a proper timetable.

Conclusion

In closing, we see no need to increase the BPC authorized number of pilot licenses at this time. In fact, many trends point to a need to reduce the number of licenses.

Before granting PSP's request to consider increasing the number of pilot licenses, it would seem rational for the Board to first focus on filling empty license slots while reviewing all mandates and relevant data to ensure that every state licensed pilot is piloting at a safe, efficient and optimal workload. If all licensed and healthy pilots completed a minimum number of assignments closer to the average of the most productive pilots, the workload would be more evenly distributed minimizing the need for call backs.

As stated earlier, we continue to have concerns that PSP is calling out an emergency as part of a larger strategy that has less to do with workload, safety or efficiency and more to do with tariff. We therefore urge the BPC to first get answers to commissioner and stakeholder questions and data requests.

Thank you for your attention to this request.

Sincerely,

MR Moore

Captain Mike Moore
Vice President

Enclosures

PMSA
PACIFIC MERCHANT SHIPPING ASSOCIATION

ENCL. 1

May 10, 2017

Chair Sheri Tonn
Washington State Board of Pilotage Commissioners
2901 Third Ave., Ste. 500
Seattle, WA 98121

Dear Chair Tonn:

The Washington State Board of Pilotage Commissioners responsibility to set the number of pilots "from time to time," presents an excellent opportunity to review a number of important factors. First, we should summarize the dccrease in assignments.

Ship Calls and Assignments Decreasing:

- Pilotage assignments down 73 YTD through April
  - This trend represents a projected 219 per year reduction
  - Excluding Hanjin (captured below), this represents a **reduction of 0.7 pilots**

- Container Assignments Reducing at the rate of 323/year = **reduction of 2.2 pilots**

  - ✓ *The Northwest Seaport Alliance recorded 24 Hanjin vessel calls from April 2016 to August 2016 resulting in 48 Assignments (over a period of 5 months). This equated to approximately 115 Assignments/year (about 10 per month so*
  - ✓ *Now, with the various service changes resulting from the new alliances, the Alliance anticipates a further reduction of approximately 208 Assignments per year. These combine for an estimated reduction (for the international container trade) of approximately 323 Assignments/year*

- Cruise ships calls will be increased by 14 in 2017 (Plus 28 Assignments or **0.2 pilots**)

- The oil industry is struggling and **tanker calls are decreasing.**

  - ✓ *Sector experts do not expect a rebound this year and this depressed activity level is expected to continue well into 2018.*
  - ✓ *Vessels are being taken out of service*

- Bulkers/Grain Ships have increased. Bulkers increases this year are not enough to make up the other lost assignments or the announced assignment reductions (see above).

Recommendation: These realities indicate a decrease of 2.7 pilots at the current TAL of 145. We recommend the Commission reduce the number of pilots to 51 (50 plus the president). This incremental and conservative decision represents a reduction of one pilot until further study can

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be done on workload levels and dispatch optimization. This reduction will not have a significant impact on the training pipeline given the pending retirements.

As we move forward through study efforts and reform, we offer the following:

Commission Staff Analysis: In reviewing factors set forth in the WAC, PMSA has reached the conclusion that an in-depth analysis of dispatch, workload and assignment type/mix by Commission staff will be helpful in reviewing the TAL for possible adjustment. It is preferable that staff conduct this analysis instead of stakeholders. We strongly recommend the Commission direct staff to do this. The Commission can still set the number of pilots without the completion of this analysis based on decreasing ship arrivals and pilotage assignments as already articulated. Commission staff efforts can be completed either independently or in conjunction with the JTC study required by recent legislation.

Target Assignment Level (TAL) Assessment: It has been 7 years since the TAL was set. Discussion and review of that decision making process and outcome would serve as a basis for reviewing the TAL again. We recommend that the Commission direct staff to pull up the history of this decision and to identify and track key trends since that decision including bridge hours.

For example, PSP reported at one point thatt he average bridge time per assignment was over 5.3 hours and then years later reported it had dropped to 4.91 hours. This represents an 8% reduction in bridge hours yet the TAL was not adjusted. Then larger vessels began calling in Tacoma and short second pilot assignments were added further reducing average bridge hours. As we have seen in other pilotage districts, this is a key factor in describing pilot workload in addition to total assignments.

Workload and Fatigue Management: History can help to inform this discussion. Pilots used to average over 190 assignments per year in the 70's. That workload was reduced to just over 170 per pilot in the following decade before a negotiated agreement process settled on 149 in the 90's. Then in 2010, PSP recommended a reduction to 133 assignments and the Commission reduced the number to 145. There was no discussion of how to count cancelations or shifts or second pilot assignments.

Rest Periods and Optimized Dispatch: For context purposes, the 145 assignments at an average of about 5 hours per assignment on the bridge means that for every 5 hours piloting, there are 55 hours not piloting. This period of time provides more than enough time quality rest (fatigue management). An "optimized" duty and dispatch system can increase opportunities for safe rest and help the Commission ensure a properly sized pilot corps. Such a system would fully assess and potentially leverage advance notice of arrival data, long range vessel tracking, ship schedules/updates and predictive software in addition to smart phone technology used in other sectors to deal with surge demands. We realize staff does not have a definition or day to day knowledge of how the current dispatch system operates so this will take coordination and cooperation of PSP.

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Past PMSA Submissions: Some time has passed since the Commission last set the number of pilots. As a refresher and due to new Board membership, we provide "some past materials" for a quick review (see attached).

In conclusion, we recommend the Commission:

1. Take timely action to reduce the number of pilots to better match the decreasing workload.
2. Continue to review monthly activity levels and vessel call announcements to make further adjustments going forward.
3. Direct staff to conduct an in-depth analysis of dispatch, workload and assignment type/mix relevant to reviewing the TAL for possible adjustment.

As always, we stand ready to answer questions or provide additional information.

Sincerely,

MR Moore

Captain Mike Moore
Vice President

Encl (1) August 20, 2010, Setting the Number of Pilots Submittal
(2) February 18, 2014, Setting the Number of Pilots Letter to Chair Dudley
(3) May 12, 2014 Letter to Chair Dudley on Setting the Number of Pilots

PMSA
PACIFIC MERCHANT SHIPPING ASSOCIATION

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February 18, 2014

Captain Harry Dudley
Chair, Washington State Board of Pilotage Commissioners
2901 Third Ave., Ste. 500
Seattle, WA 98121

Dear Chair Dudley:

The Washington State Board of Pilotage Commissioners sets the number of pilots "from time to time". Such pilot licensing evaluations present both the responsibility and an excellent opportunity to review many important factors essential to providing a safe pilotage system.

However, this issue was inserted in the January meeting agenda at the last minute, and given the full agenda at that meeting, there was not much discussion of this issue. For this reason alone, we believe resolution at the February meeting would be premature and that a more specific review of the WAC factors be the focus on the February meeting.

In general, we continue to encourage a more in-depth analysis of dispatch, workload and assignment type/mix data and envision future expansion of staff reports to help accomplish this while limiting the volume of input from stakeholders. For additional input within this current process and due to new Board makeup, we refer the Board to some of our past submittals which are still relevant and provide more additional treatment of this issue (see attached).

WAC 363-116-065 sets forth a number of factors to consider when setting the number of pilots, including a focus primarily on changes and trends in vessel traffic and impacts on workload factors. None of these factors involve the tariff and the setting of the number of pilots should be focused on safety and workload. Unfortunately, while it should not be a tariff issue, we have found the setting of pilots tied to tariff discussions because PSP requests more tariff every time a pilot is added. The process of adding a pilot or reducing a pilot can be done independent of the tariff, for example, if rate setting reforms required discussions around individual earnings to be normalized using Target Assignment Level (TAL) and Bridge Hour metrics. That has not yet happened.

Of course, the WAC listing of factors and past Board decisions demonstrate that the setting of the number of pilots is more than simply dividing past annual assignments by Target Assignment Level (TAL). Such an approach would disregard current trends and other listed factors and would be inconsistent with past Board actions.

Pacific Merchant Shipping Association
World Trade Center 2200 Alaskan Way, Suite 160, Seattle, WA 98121 phone (206) 441-9700 fax (206) 441-0183

Current trends do not support adding a pilot at this time. Individual pilot workload continues to decrease, ship calls continue to decrease and trends in ocean shipping are not favorable for the PNW. In addition, there are a number of factors listed in the WAC that have not been fully discussed and are almost certainly without common understanding between Board members. Let's look at just one of those factors:

WAC 363-116-065 (2)(d): **Regional maritime economic outlook, including without limitation: Current economic trends in the industry, fluctuations in the number of calls, the types of assignments, the size of vessels, the cyclical nature of the traffic and whether traffic is increasing or decreasing and the need to minimize shipping delays.**

- Assignments are not equal and must be broken into types of assignments just as called out in this WAC factor. Data is more readily available now due to staff reports but the Board to our knowledge has not fully discussed the trends in assignment type (zones, shifts, cancelations, second pilot jobs). We recommend the Board have staff develop a trend analysis for different types of assignments and the impact on pilot workload like bridge hours.

- PMSA has provided accurate monthly updates on industry trends (See January 2014 submittal attached for easy reference). We continue to highlight the container sector trend towards larger vessels, mega alliances and fewer port calls. This trend is playing out now with fewer container vessel calls. We also include overall ship call data and trends of all major vessel types.

- Port competition continues to intensify. The trend in ocean shipping, Canadian port and market share growth, Panama Canal, Suez Canal, terminal consolidation and other factors have all contributed to the ongoing loss of container market share in the PNW. This reality is more likely to lead to less PNW gateway calls going forward.

- The FMC discussion approval between container terminal operators and the Port of Seattle will include options to address low container volume throughput including best use of existing terminals and has implications for port call activity.

- The Ports of Seattle and Tacoma have requested FMC approval to discuss issues related to gateway competitiveness and has implications for port call activity.

- October 2013: A container vessel weekly service was canceled involving 52 arrivals and 52 departures per year meaning 104 less assignments per year at about 5 hours per assignment (over 500 less bridge hours).

  Note: October 2013: A remaining service was upsized in Tacoma meaning one more waterway job per week (already used a second pilot one way). This means the addition of 52 second pilot assignments about 1 hour each or about 52 bridge hours.

- Mega Alliances called the G6 and P3 are pending approval. A recent announcement indicates that the first approval may be made in March 2014 and the second approval likely a few months later. After approval, there are expectations of the loss of another weekly service here that may involve a double call meaning a call in both Tacoma and Seattle. That would mean the loss of 52 arrivals, 52 departures and 52 moves between Tacoma and Seattle for a total loss of 156 less assignments and a significant reduction in total annualized bridge hours.

- Cruise ships calls will be reduced in 2014 by 11 calls from the 2013 level. This means 11 less arrivals, 11 less departures and a total reduction of 22 assignments and the bridge hours associated with these Zone 4 moves.

- Tanker calls continue to trend downward. ATB activity has increased but there is no firm indication that the dramatic increase of 2013 will continue. The expectation is that this trend will significantly level off.

- Grain Ships: According to the ports and those in the grain sector, the expectation is for 2014 to pick up activity and look more like 2012 than 2013. It is early to tell exactly how many grain ship arrivals there will be in 2014 but some envision another 40 calls or so.

- Cancellations continue to be counted with assignments. Staff reports show that annual cancelation invoices makeup nearly one pilots worth of monthly or annual assignments. We recommend the board acknowledge cancelations as a separate category of assignments just like a harbor shift is not a Zone 2, 3, 4, 5 or 6 move in terms of workload. When the TAL was set by the Board there was no specific mention of including cancelations in the TAL. If the Board treated cancelations as a partial assignment for workload purposes it would be an accuracy improvement over lumping them together with actual assignments. Even half assignment credit would represent 0.5 less pilots.

- Current YTD comparison shows a decrease of 23 assignments in January 2014 compared to 2013.This workload reduction represents a reduction in monthly workload of two pilots.

- The shortest pilot ship move is a Zone 1 harbor shift. Staff report shows that Zone 1 jobs have increased nearly 48% since 2011 in January to January comparisons. This trend continued this January compared to 2013. With less overall assignments and more short bridge hour Zone 1 moves, logic would dictate that this represents a reduction in piloting workload. A specific numerical answer could be provided via analysis of the type of assignment data.

- YTD information per staff report shows the pilot manning level increased by 2 pilots in January 2014 compared to January 2013 yet pilot assignments in January 2014 are down 2 pilots worth from January 2013.

- Pilot manning increased by 1.42 pilots in 2013 over 2012 and will increase by another 0.7 pilots in 2014 at the current number of pilots with no further action by the Board.

The trends listed in the WAC factors all point to steady or reducing ship call activity with the exception of grain ships. Pending announcements are likely to reduce ship calls further.

In addition, the adoption of PSP's current proposal would be inconsistent with PSP's own proposals over the past several years and its own projections. Recall, PSP's position documented in Board minutes where PSP claimed being short by 3 pilots based on TAL and assignment levels (when discussing income levels) but yet never made a request to increase manning by 3 or even 2. Specifically, PSP delayed requests to add one pilot for many months and then made a request to add one pilot, not three (see June 2013 Board minutes).

Lastly, we are aware of the unusual situation here that a former pilot is completing his training and is ready to be licensed. We also understand he is well-respected and there is some empathy for finding a spot for him sooner than later. PSP may want to accommodate him and use other arguments not related to the WAC to convince the Board to increase the number of pilots. We caution the Board on doing so at this time and to avoid setting the precedent that the Board may make such a decision for the benefit of one individual potential licensee without first going through the full factor analysis per the WAC.

We strongly recommend the Board fully assess all factors and exercise due diligence in reviewing those factors before making a decision on this issue. Specifically we urge the Board to not make a decision at the February 25th meeting but to evaluate the relevant factors and seek more understanding of the trends in shipping and workload. We also urge the Board to consider de-linking this issue from tariff setting.

Sincerely,

M R Moore

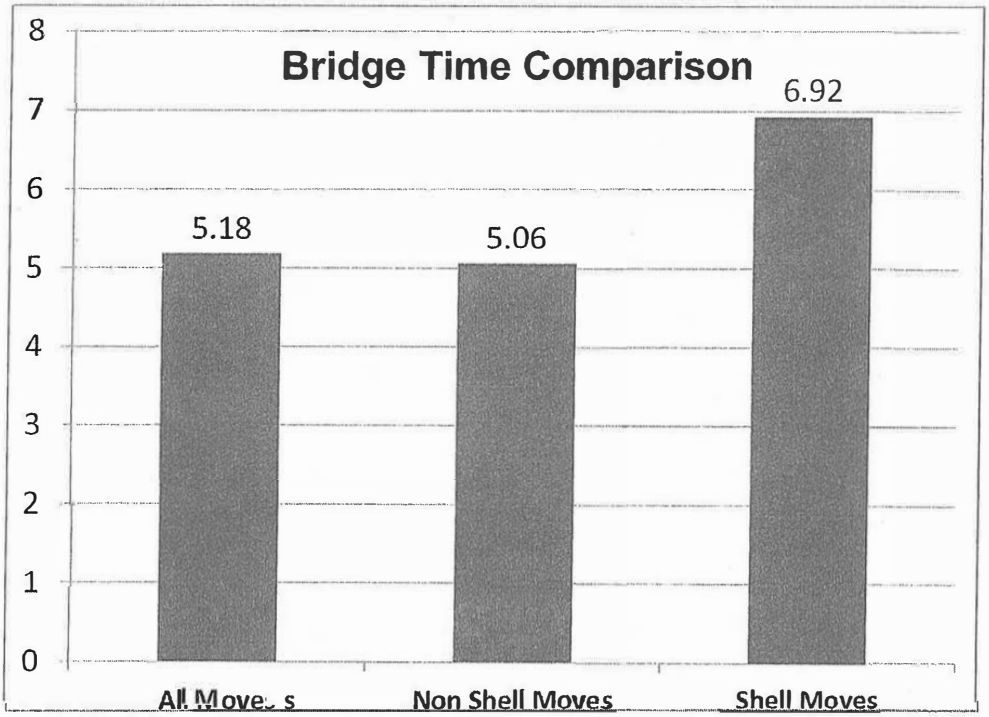
Captain Mike Moore
Vice President

Encl (1) PMSA Letter Dated April 26, 2012
(2) PMSA Letter Dated August 2, 2012
(3) PMSA Letter Dated March 8, 2013
(4) Industry Update January 2014
(5) Market Share Graph

ENC. 2

Average Time per Assignment First Half 2015

1.	All Assignments	5.18 hours bridge, 1.98 hours travel time
2.	Non Shell Assignments	5.06 hours bridge, 1.97 hours travel time
3.	Shell Assignments	6.92 hours bridge, 2.13 hours travel time
4.	Combined Time All Assigns	7.16 hours
5.	Combined Time Non Shell Assigns	7.03 hours
6.	Combined Time Shell Assigns	9.05 hours
7.	Difference Bridge Time	37%
8.	Difference Bridge and Travel Time	29%



Was 4.9

Average Zones per Assignment First Half 2015

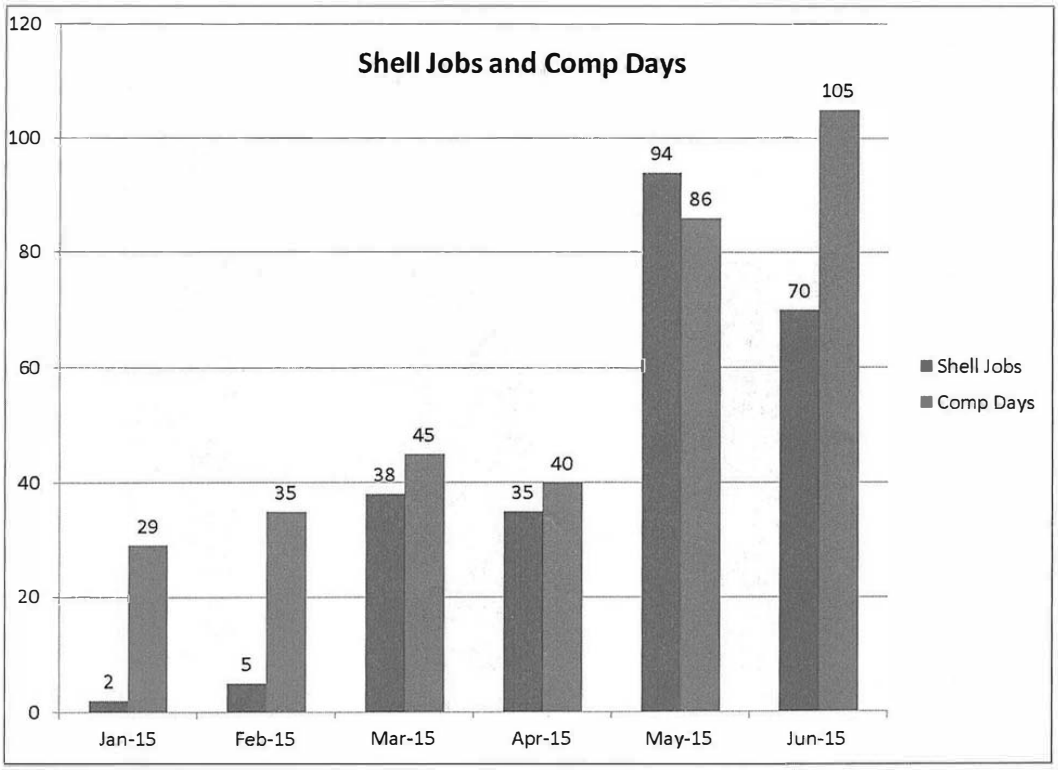
1.	All Assignments	3.3
2.	Non Shell Assignments	3.4
3.	Shell Assignments	1.8

EXCL. 2

Analysis of Shell Related Movements: January 1, 2015 to June 30, 2015

244 Moves from Jan 1 to June 30 (Most in May + June)

Relationship to Workload and Comp Days (PSP is currently 157 assignments over the TAL):



In 2014 PSP used 315 comp day pilots. In the first half of 2015, it used 340.

Does not include days banked

(over)

Monthly Averages per Assignment: LB vs. PS

Long Beach: 1 port, 22 terminals	PSPD = 12 ports, 47 terminals
35 assignments	12.7 assignments
X 2 hours bridge time	X 5.14 hours bridge time
= 70 hours per pilot	= 65.28 hours per pilot
When you factor in travel time:	
+ 0.75 hours travel time (max)	+ 2.6 hours travel time (ave)
= 96.25 hours per pilot/month	= 98.3 hours per pilot/month

"As you know, it is very hard to compare our piloting operations." "Your operation covers such an enormous area!"

ENCL. 3

ENCL. 4

From: Grant Stewart <Grant.Stewart@wsl.com>
Sent: Wednesday, May 1, 2019 2:41 PM
To: Mike Moore <mmoore@pmsaship.com>
Subject: FW: Pilot Ordering, Delays, Time Changes

Westwood has about 233 pilot assignments per year.

From sea, Port Angeles to Everett: 51

From sea, Port Angeles to Tacoma 1

Everett to Tacoma: 51

Tacoma to Vancouver via Port Angeles 52

Vancouver to Tacoma via Port Angeles: 39

From Tacoma to Port Angeles, to sea: 39

Our vessel schedule is published every weekday. This covers the vessels inbound to PNW from Asia, and vessels in PNW region.

Also there is a long term, 3 month, schedule that is published weekly.

Our agent Norton Lilly orders the pilots. Norton Lilly will check with WSL about vessel schedules when needed.

Vessels report next port ETA at Pilot Station upon departing last port. Vessels also report ETA daily thereafter. Vessels coming from Canada will report if there is a delay there. Plus there is the 96 hour and 24 hour NOA's required.

Our arrival times are based on longshore starting times, 0800 and 1800. Pilot times will be scheduled to all the vessel to arrive at the port with a couple of hours buffer.

Any delays are usually a result of extended longshore operations, and then maybe only a couple of hours. If this happens Norton Lilly will advise the Pilots to meet the five hour call out requirement. If it happens after the five hour call out, they will still notify pilots of delay. This doesn't happen very often.

Grant Stewart
Vice President
Marine Operations & Vessel Safety

WESTWOOD SHIPPING LINES, INC.
1019 39th Ave SE
Suite 210
Puyallup, WA 98374
www.wsl.com

From: Grant Stewart <Grant.Stewart@wsl.com>
Sent: Thursday, May 2, 2019 10:04 AM
To: Mike Moore <mmoore@pmsaship.com>
Subject: RE: Pilot Ordering, Delays, Time Changes

Mike,

See below for pilot ordering process through our agent Norton Lilly. Eastbound means vessels coming from Asia. Westwood bound means going to Asia.

Grant

When ordering pilots for the Eastbound voyage arrival at Port Angeles, how far in advance are you ordering? **Per pilot guidelines, all new orders must be made 24 hours in advance. I usually have all orders in 3-10 days in advance. I usually make new orders on Friday for next week's vessels.**

a. When do you finalize the order? **Only in rare circumstances (vessel breakdowns, Coast Guard holds) do I place 'tentative' orders. 99% of orders made are firm orders that are adjusted as needed per the below pilot guidelines.**

b. If changes are imminent, how much notice are you giving dispatch? **For inbound vessels, advances to the pilot station are treated as new orders and must be given 24 hours' notice. For Delays less than 2 hours, no notice required. 2-6 hours delay requires 6 hours' notice before the ordered time, and delays greater than 6 hours require 12 hours' notice before the ordered time.**

1. When ordering pilots for the Westbound return from Vancouver to Tacoma, how far in advance are you ordering? **I have been placing these orders the day after the vessel departs Tacoma on the eastbound voyage, after they have made berth in Vancouver, in case of any changes in schedule at CAVAN.**

a. When do you finalize the order? **Orders are 'final' at the time that they are placed, but may be delayed as needed per the guidelines.**

b. If changes are imminent, how much notice are you giving dispatch? **As much as notice possible within the guidelines- Whenever I am informed of changes.**

Do you order the WB Tacoma to sea, Tacoma departure pilot at the same time as the inbound Vancouver to Tacoma WB pilot? ? **I have been placing these orders the day after the vessel departs Tacoma on the eastbound voyage, after they have made berth in Vancouver, in case of any changes in schedule at CAVAN.**

Grant Stewart
Vice President
Marine Operations & Vessel Safety

ENCL. 5

Matson overview of Pilot Ordering

Provided May 1, 2019 via e-mail to PMSA

Seattle:

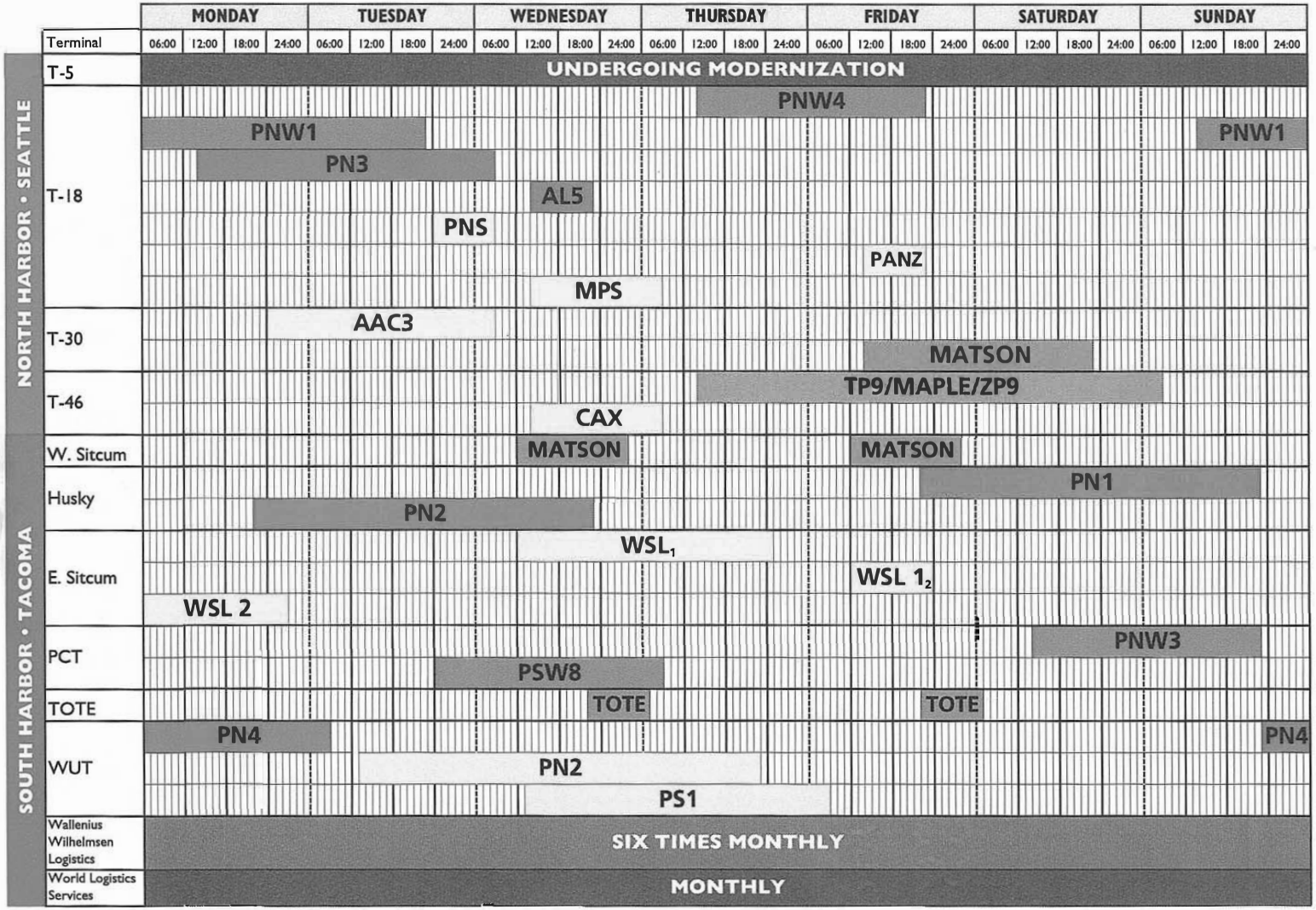
- Our pro-forma schedule is one weekly vessel call
- 104 pilot assignments per year, give or take the odd omitted call or extra voyage.
- SOP is to place order Wednesday afternoon for Friday arrival, so 36 plus hours in advance of arrival.
- Preliminary departure order is placed at the same time.
- We do not often shift our vessels, but if we do our Seattle Ops team typically gives significant advanced notice (roughly a week)
- Adjustments to arrival departure times (if necessary) are usually made 3 to 4 hours before departure, and are typically adjustments of an hour or two.

Tacoma:

1. Total number of pilot assignments for Matson – 2 vessels a week. (Wednesday & Friday)
2. Arrivals and average ordering lead time – Vessel and SSAT sends the pilots a message 3 days in advance.
3. Departures and average ordering lead time - Given tentative departure during arrival order (2200 proforma). Pilots call to firm up by 3pm on sailing day.
4. Shifts and average ordering lead time – N/A

DELTA: how often are pilot order modified less than hour, more than hour, more than two hours etc. – Pilots are rarely changed as they are firmed up by 3pm the day of sailing.

PROFORMA TERMINAL BERTH SCHEDULE - As of 4/1/2019



(1) WSL-EB Weekly Service (2) WSL 1 China Vessel, Monthly Service (3) WAN - Oceania: Fortnightly Service

Ocean Alliance — APL, CMA CGM, COSCO Shipping, Evergreen, OOCL

THE Alliance — Hapag-Lloyd, Ocean Network Express (ONE), Yang Ming

2M — Maersk, Mediterranean Shipping Co. (MSC)

Independent Services

Domestic Services

ENCL. 6

PSP_004290