PUGET SOUND PILOTS

Protecting your waterways since 1935

Puget Sound Pilots

2012 Tariff Request

October 13, 2011

PUGET SOUND PILOTS
Protecting your waterways since 1935

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Adding a Variable Expense Component to the Tariff Will Benefit the Board, Industry, Pilots and Pilot Retirees in Both Pilot Districts

The pilots have developed a proposed tariff tool that we believe will help the board generate a more productive and positive rate setting process. Rate setting can be a unique opportunity for the board to express itself on the important decisions entrusted to it and to guide the behavior of those it regulates. The pilots propose that the board return to its former practice of using its control over revenue to accomplish its goals. It can do this by restoring partial expense approvals into its rate setting process.

PSP spends over $10 million dollars a year providing pilots to ships on Puget Sound. A select few of these expenses cry out for separate handling in the tariff process. They are: pilot training, pilot technology, retirement programs in both districts, comp day liability, and fuel costs. Some of these expenses need to be articulated for policy reasons and others vary so much from year to year that the tariff should fluctuate up and down with them.

Itemizing these few expenses and adding a Variable Expense Component (VEC) to address them offers benefits to all. It will help the board accomplish its mission, it will diffuse differences at future rate hearings; it will give industry a transparent system that avoids overpayments; and it will help the pilots and retirees by providing some sorely needed certainty on major financial issues.

There are other benefits as well. The board is acutely interested in promoting safe pilotage through continuing education and pilots' use of technology. The larger, deeper ships now using our ever-more-constricted waterways present challenges – and risks – never before seen in this district. These ships may afford industry larger profit margins and unprecedented economies of scale but they present a host of problems to the pilots who will move them. Learning to do so safely demands special training and equipment that will need funding in the tariff process.

PSP's revenue is controlled by the board and it has no means of financing these measures without the board. Board involvement insures that all parties are heard and that the board remains in control of this vital policy area. It also provides transparency and assures that only the funds actually needed will be included in the tariff.

The board has benefited greatly over the years from retirement plans in both districts and the savings afforded by the comp day system in Puget Sound. Funding for these systems is under attack by a very vocal organization representing a portion of the shipping industry. It is important for future, current and past pilots to know that the previously agreed upon and successful programs are still supported by the board.

The board does not benefit from the retirement programs unless the applicant pool knows the programs will exist when they need them. Just as Microsoft touts its stock option program when recruiting, the board can benefit from making sure that applicants know that the retirement plan here is adequately financed. 80% of the pilots in the country are covered by retirement plans and the board would be at a significant recruitment disadvantage without the Puget Sound plan. Applicants are aware that pilots now face potentially career ending medical scrutiny every year and that retirement protection is more important than ever. The need in Grays Harbor is more acute. Their right to benefits exists only by virtue of a board WAC that is not triggered unless the board reimburses the cost of the plan in the tariff. There is no way to do this without calculating the expense into the tariff which the VEC would do.

Retirement plans are an integral part of pilot compensation. In response to board dissatisfaction with past evidence on pilot compensation, the pilots have asked Brent Dibner and Associates to prepare a report on this topic. Mr. Dibner's report shows current average net pilot income of $407,000 across the country. Puget Sound is considerably lower. The combination of below average earnings and an un-supported retirement plan presents a threat to the board's mission. The VEC will address the retirement portion of this challenge.

A properly funded comp day system is essential for the board to continue to discharge its duty to maintain efficient pilotage. By keeping the pilot corps smaller, it has saved industry millions of dollars in recent years and kept rates here lower than all other West Coast ports served by state pilots. The cost of the comp day system varies greatly from year to year and with a VEC the amount collected in the tariff will vary as well.

It has become standard practice in the maritime industry for fuel costs to be paid by variable charges. Ship operators regularly add fuel surcharges to their fees and these surcharges fluctuate up and down with the price of fuel. PSP has significant fuel expenses that are unpredictable and beyond the control of the pilots. Adding them to the VEC will adjust them as the market dictates.

In seeking a VEC, the pilots are not asking for a radical departure from past practice. For at least 30 years prior to 2006, the board itemized expenses as part of the tariff setting process. In building the tariff, the board made a very clear record of which expenses were, and were not, being included in the tariff. The pilots do not seek a return to this detailed and tedious process for all expenses. They seek only a partial return to these earlier practices to restore the benefits of the board's open use of its regulatory power to accomplish its goals, streamline the tariff process and give guidance to the stakeholders.

The Variable Expense Component of the Tariff

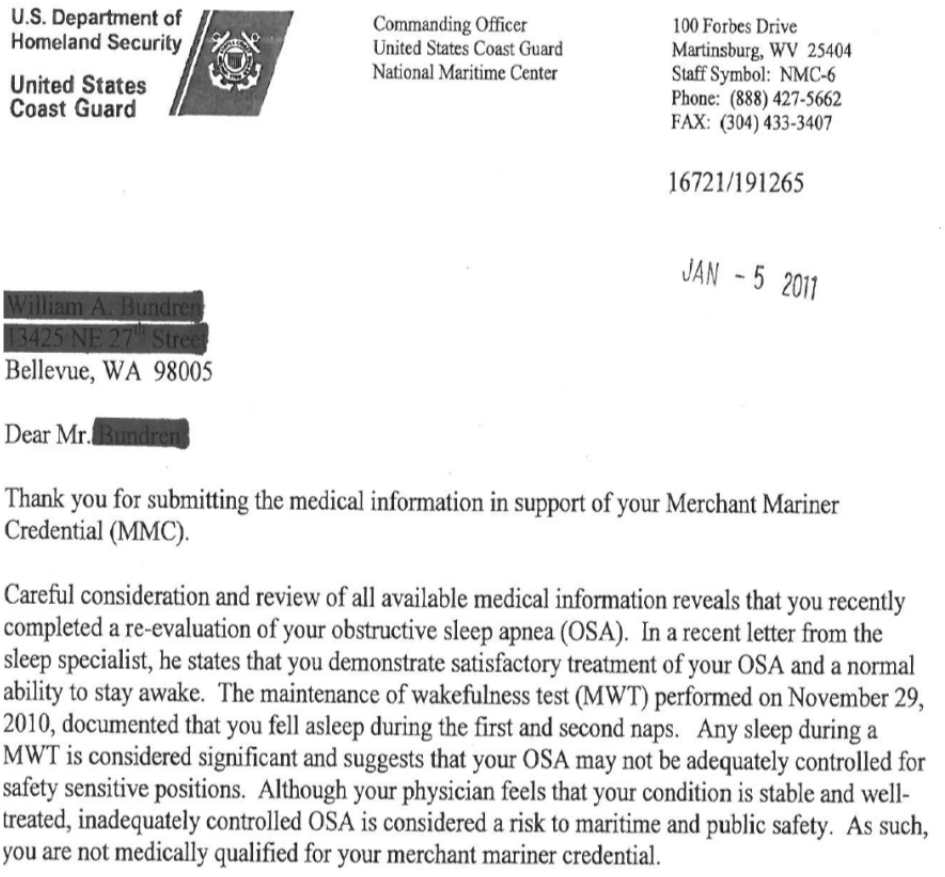
As suggested by the pilots, the VEC is a flat charge levied on all assignments other than harbor shifts, cancellations and jobs on ships less than 450 feet in length. The charge would be set by determining the amount of the included expenses and dividing by the number of eligible assignments. The use of a flat fee would bring our tariff structure more into line with that of other districts (our rates are lower than other districts, but they are **much** lower on smaller ships). If the board prefers not to use a flat fee, the VEC could be expressed as a tonnage or LOA charge.

The time is right for the VEC. The board can take advantage of the anomalies in our rate structure to use a flat fee to bring our rates more into line with industry patterns. It can take advantage of the fact that our rates are low to correct the imbalance between earnings in this district and elsewhere. It can establish a rate setting practice that will guide the stakeholders in rate presentations and diffuse differences while at the same time ensuring that the safety goals of the board are being met.

Because the rate hearing is in November and the VEC expenses are from both this year and next, estimates will have to be used. However, all of these estimates will be followed by audited financial statements. The pilots propose that the board adjust the VEC in future years to account for any discrepancies between estimates and actual expense and assignment numbers. This reconciliation can be done outside of the normal tariff process to further streamline the November hearing.

The Retirement Expense Component of the VEC

All pilots live with the very real possibility that they will be forced to retire for reasons beyond their control. Some will realize that they no longer have the needed edge and others will be forced out by the Coast Guard or pilotage commissions. It only takes a letter like this one recently received by a Puget Sound pilot to end a career:



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16721/191265

JAN - 5 2011

William A. Bundren
13425 NE 27th Street
Bellevue, WA 98005

Dear Mr. Bundren:

Thank you for submitting the medical information in support of your Merchant Mariner Credential (MMC).

Careful consideration and review of all available medical information reveals that you recently completed a re-evaluation of your obstructive sleep apnea (OSA). In a recent letter from the sleep specialist, he states that you demonstrate satisfactory treatment of your OSA and a normal ability to stay awake. The maintenance of wakefulness test (MWT) performed on November 29, 2010, documented that you fell asleep during the first and second naps. Any sleep during a MWT is considered significant and suggests that your OSA may not be adequately controlled for safety sensitive positions. Although your physician feels that your condition is stable and well-treated, inadequately controlled OSA is considered a risk to maritime and public safety. As such, you are not medically qualified for your merchant mariner credential.

Unlike most other professions, there is a direct link between pilot health and public safety. This link, and the physical demands and mental stress of piloting, dictate that pilots have a reasonable retirement program to cover them when the day comes that they can no longer pilot. This board has long recognized this. From 1967 to 1987, it

mandated retirement fund contributions for pilots. From 1987 to 2005 it accomplished the same goal by explicit reimbursement in the tariff.[1]

Sister pilot boards around the country recognize the same value and promote retirement programs – more than 80% of the pilots in the country are covered by such programs - for two main reasons:

- Retirement programs are an essential recruitment tool. Almost all pilot applicants have retirement programs in their industry jobs. As mature, established ship masters, they are concerned about retirement when making a career change and do not want to stop accruing retirement benefits. A pilotage district without a program is less attractive to them than a district with a program. In fact, given current Coast Guard medical practices it would be irresponsible to leave industry and take a piloting position without some protection against the possibility of mandatory early retirement.
- If a pilot has mental or physical issues inclining him or her to retire, the pilot board wants that pilot to retire. All of the regulations in the world will not replace the essential self-policing of this issue fostered by an adequate retirement program.

A chart showing the programs in effect in twenty-five pilotage districts covering 80% of the pilots in the country is attached as **Exhibit A**. Much of the information in this section is presented in the Declaration of Captain George Quick and attached as **Exhibit B**. Capt. Quick is the Vice President, Pilot Group, MM&P and started as a pilot in 1956. He now serves as the national central clearing house for all economic information regarding pilots and pilot groups. A summary of the points made by Capt. Quick is:

- In the marine sector, retirement plans have not fallen out of favor as in other industries and almost all applicants for a pilot license are accruing benefits under an industry retirement plan;
- Today's medical scrutiny of pilots is unprecedented and has caused pilot applicants to be very concerned with retirement benefits in the pilot groups they

[1] The extensive documentation of the history of retirement plan regulation by the board was submitted to the board as part of the 2007 rate process and is available from PSP electronically on request.

consider. This is especially true in districts such as ours where applicants tend to be older due to experience requirements;

- The Puget Sound plan is less expensive than almost all other pilot retirement plans in the country because it has no inflation protection;
- Industry prefers unfunded plans such the one in Puget Sound because they carry no investment risk.

Pilots Face the Toughest Medical Scrutiny in the Industry and have Few Alternatives if they Lose their Federal License

New urgency to this issue has been added in the last five years by the Coast Guard and its concentrated focus on the direct relationship between public safety and pilot health. **There is now more scrutiny of pilot health than almost any other profession in the country. We know of no professional subjected to this level of medical scrutiny who is asked to work without the safety net of a retirement program.**

Retirement programs play a more important role in the maritime industry than in other industries. See Quick Declaration, Exhibit B. Most positions on ships entail substantial physical requirements. It is the nature of shipboard life. When a mariner gets to the point that these physical demands cannot be met, retirement is inevitable. As a result, retirement programs continue to represent the norm in this industry. This is especially true of the applicant pool from which the board attracts pilots. Masters of tugs, deep sea vessels and ferry boats all have retirement programs with accruing benefits. Masters are loath to give up these ongoing accruals when becoming a pilot.

Recent events have focused attention on the direct link between pilot health and public safety. The board will recall the presentation of Clay Diamond of the American Pilots Association describing what is currently happening in West Virginia. Mr. Diamond is a Coast Guard Academy graduate who is now the Deputy Executive Director/General Counsel of the APA with an extensive background working for the Coast Guard. He is currently spending more than half of his time working with the Coast Guard on medical issues and with pilots whose ability to continue to pilot is at risk.

Since 2006 pilots have been required to file annual medical reports with the Coast Guard. After the *Cosco Busan* oil spill in November of 2009, the Coast Guard expanded this from a three page report covering limited medical conditions to a nine page report asking for specific information on over 115 specific conditions and listing 13 functions that a license holder must be able to perform. A copy of the current version of

719K is attached to this submission as **Exhibit C.** The Coast Guard's NVIC guiding physicians examining pilots and preparing 719Ks runs to 70 pages with enclosures.

These annual reviews have ended the careers of a number of pilots, including at least one here in Puget Sound who lost his license earlier this year. The recent finding by the NTSB that sleep apnea was a contributory cause in the 2010 collision and oil spill involving the *Eagle Otome* in the Sabine River is only calculated to heighten this scrutiny. Twelve to twenty million Americans suffer from sleep apnea.[2]

Of more direct relevance to pilot commissions is the fact that their applicant pool is not subject to this level of scrutiny. Medical issues are now the major economic threat facing pilots – even more than criminalization. An employed master has many options available if he or she loses his or her license. He or she can work on shore or in some other capacity. The pilot who has severed his industry ties to become an independent pilot has no options and no place to go. His or her career is over.

This is a significant and real deterrent to piloting and it is growing in significance as the Coast Guard continues to drill down on this issue. It is one of many reasons that the overwhelming majority of masters qualified to be a pilot do not want to be pilots but prefer to remain in their industry jobs. The current medical crisis will make this board's quest for the best applicants more difficult and makes the existence of a retirement program more essential than ever.

This Board had a Crucial Role in Creating and Supporting the Retirement Programs in Puget Sound and Grays Harbor

Pilot retirement programs are very much the business of pilot commissions. It is tempting to say that these are private programs that should be fully controlled by the pilot associations. This is not the case for a very simple reason - pilot associations do not control their revenue. Pilot commissions do. Pilotage is not free enterprise – it is subject to full economic regulation. The board sets the tariff that controls pilot compensation which includes pilot income, expense reimbursement and the retirement program. Because retirement programs represent a large liability, associations are not free to enter them without commission support. To do so would be irresponsible and invite financial suicide.

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[2] Sleeping Disorders Web Page: http://www.sleepdisorderremedies.com/sleep-apnea/how_common_is_obstructive_sleep_apnea_in_the_general_population.html

The Current Programs in Puget Sound and Grays Harbor

The programs in Washington districts are lean and straightforward. Upon retirement, pilots receive a benefit equal to 1.5% per year of service times the prior three year average of Pilot Net Income. A typical pilot has 20 years of service at retirement. This benefit is payable for the life of the pilot. Once the amount of the benefit is set, it does not change and has no inflation protection.

The retirement programs in our districts are unfunded – i.e. there is no fund set aside to pay benefits. Benefits in both districts are paid as they become due out of operating revenues of PSP, with the Port of Grays Harbor contributing a small portion of the cost of Grays Harbor retirees for years worked before the port took over pilotage in 2001. The current Grays Harbor pilots are fully covered by the public employees' retirement plan which does have inflation protection.

Unfunded retirement programs are the norm for US pilot associations. However, there is one important difference between the program here and those of other pilotage districts – the Puget Sound program has no inflation protection. Once payments start they do not increase or change over time. Most pilot programs establish a percentage benefit based on years of experience and apply that percentage to ongoing pilot earnings that change through time. See other pilot program descriptions in Exhibit A. As pilot earnings change, the retirement benefit changes with it. Other programs have COLA increases.

Of the 25 pilot retirement programs described in Exhibit A, 20 of them pay a share of current pilot earnings or have COLA adjustments. Only four, including Puget Sound have fixed payments without COLAs. Consequently, the program is cheaper than most to administer and provides a more modest benefit.

As a result, the plans here cost a smaller percentage of gross revenue than many other plans – both in pilot groups and in industry. As pointed out by Capt. Quick in **Exhibit B,** a typical pilot retirement plan will cost between 14% and 18% of gross revenue to fund each year. In private industry in which the MM&P retirement plan is used, funding plans typically represent 25% of the company's total employee cost. Because the Puget Sound benefit is not protected against inflation, it currently costs less than 9% of the association's gross revenue. It will always cost considerably less than the other plans around the country.

The inexpensive nature of the Puget Sound plan can be shown by comparing it to the plan covering the two current Grays Harbor pilots. They are entitled to a retirement benefit of 2% per year of service on salary up to $245,000. The port expects to pay these pilots $285,000 in 2011, and if they retired with 20 years of service they would receive an initial benefit of $98,000 per year (40% of $245,000). In contrast, a 20 year pilot in Puget Sound would be entitled to a payment of $95,000 a year assuming 2011 net income is $335,000. But there is a big difference. The Grays Harbor retiree will get a Cost of Living Adjustment of the CPI up to 3% each and every year of retirement. The Puget Sound pilot will never get more than the $95,000. Assuming inflation of 2% per year, the Grays Harbor retiree will receive $481,000 more than the Puget Sound pilot over a 20 year retirement.

The History of the Puget Sound and Grays Harbor Programs

Even though the Puget Sound program costs less than those in other districts, it still represents a large financial liability for an entity that doesn't control its revenue. As can be expected, PSP did not incur this obligation without the consent and participation of the board. It needs the board to provide the funds to avoid insolvency. Insolvency of a pilot association would be a disaster for the administration of a safe and efficient pilotage service.

The programs in place here were negotiated between pilots and industry and specifically funded by the board. **The programs were not put into place by pilot associations until after they were negotiated with industry and specifically approved for funding by the board.** While the plans were jointly developed, the Puget Sound plan takes the form of a contract between PSP and its current and former members. It cannot be changed without a vote of all concerned. PSP has no ability to unilaterally change it.

This does not mean that the program can never be changed. It has been changed before, most recently in 2001. What it does mean is that changes to the program must be handled the same way the program was adopted – with the participation and consent of all parties. If industry representatives continue to decline to participate in the process, it will be left to the board. This is exactly the way it should be in a system such as ours where the board has full control over pilot revenue and policy. After all, it is the board's recruitment efforts that would suffer if the plan did not exist.

The Puget Sound program was jointly developed by PSSOA (PMSA's predecessor), Polar Tankers, PSP and the board. Negotiations leading up to the 1987 rate hearing stalled when the parties could not agree on the correct percentage of Target Net Income that should be used to calculate benefits.[3] This issue was resolved by the board at the 1987 rate hearing by the following motion (taken from the board's December 10, 1987 minutes):

> *With regard to the proposed Port Angeles Pilots retirement program . . .* ***An amendment to the amended motion was made by Commissioner Richmond and seconded by Chairman Schwartzman to approve funding through the tariff for a Port Angeles Pilots retirement program based on 80% funding in 1988, increasing to 100% by 1992, in 5% annual increments, at a rate of 1.25% of the average of a pilot's last three years of targeted net income multiplied by his years of service. The final amended motion carried.*** *(emphasis added)*

After this decision of the board, PSP members voted early in 1988 to adopt the program described in the board's motion.

From 1988 to 2005, the board calculated the tariff using a formula based on itemized association and individual expenses. The retirement program expense was one of the enumerated expenses specifically included in the tariff. There were no disputes about the retirement program. During some of those years there were differences on select issues between PSP and PSSOA at tariff time. However, the disputes never involved whether the cost of the retirement program should be included in the tariff – it was included every single year without discussion or objection.

[3] Again, this history was extensively documented in the 2007 tariff presentation.

All parties were content with the negotiated retirement program:

- The board had:
  - A district with a reasonable retirement program agreeable to all parties and easy to administer using audited financial statements;
  - A plan that helped the board remain competitive in attracting applicants;
  - A plan that encouraged pilots to retire when the time was right; and
  - A means of assuring that the Grays Harbor retirees got their benefits.
- Industry had:
  - An inexpensive program based on payment of flat benefits without inflationary increases;
  - An unfunded program which is the least expensive to administer because there is no fund to be managed;
  - An unfunded program with no investment risk exposure.
- The pilots had:
  - An efficient plan in which every dollar spent went directly to the retirees;
  - A tariff setting mechanism that added the cost of the plan directly into the tariff; and
  - A non-controversial plan agreed to by all parties.

There was much discussion of the retirement program in the 2001 tariff negotiations. PSP, PSSOA and Polar agreed to an increase in benefits from 1.25% to 1.5% per year of service applied to the three year average of TNI. This was expressly intended to apply to all future retirees. The joint submission to the board describes the retirement agreement as follows:

> *Also, it is jointly proposed that the Amended Retirement Program of Puget Sound Pilots be revised, subject to ratification by the PSP membership, to reflect an adjustment in the benefit rate from 1.25% to 1.5% for each year of service.* ***The adjustment is intend[ed] to cover all future PSP retirees.*** *(emphasis added)*

The board approved this funding increase and the pilots **subsequently 'ratified'** the program to reflect this increase by voting to amend the plan.

At the rate hearing in 2006, the board changed its process and established the tariff without approving expenses or setting Target Net Income. A pilot was about to retire and without a board established TNI there was no way to calculate benefits. PSP

approached PMSA to discuss how the program language should be changed to deal with the board's action.

It was in response to this invitation that PMSA reversed PSSOA's position and 20 years of industry support for the pilot retirement program by refusing to participate in any such talks. PMSA has steadfastly maintained this position ever since.

Because a retirement benefit needed to be immediately calculated and PMSA declined to be involved, the pilots were forced to amend the program in the most minimal way possible. In the absence of a board set TNI, the program language was changed to substitute actual net income for Target Net Income in any year when the board did not set a TNI. **This change, borne of necessity, was the only time that the retirement program has ever been changed without the prior agreement of industry and funding approval by the board.**

Echoing the inability of PSP to undertake the liability of an unfunded plan without board support, PSP's auditors noticed the board's 2006 change and the absence of any identifiable means for PSP to pay the retirement liability. In issuing the 2008 financial statement, they insisted on adding the following new language in Notes 5 and 9:

> *Retirement payments are made from currently earned PSP income. There is no fund for satisfaction of future retirement income; and at December 31, 2008 and 2007, there were no assets set aside and available for future benefits. From 1967 to 2006, the Commission reimbursed an annual ongoing cost of the pilot retirement programs with funds from the tariff. During the past two years, the Commission has taken the added cost of the retirement program into account when setting the tariff. Management believes the Commission will continue to provide adequate funds, directly or indirectly, in the tariff for the annual funding of the retirement program expense. An estimate of the unfunded retirement program liability as of December 31, 2008 and 2007, has not been determined. See footnote 9 for further discussion of unrecorded liabilities.*

The relevant portion of Note 9 (Page 14) reads:

> *Had PSP recorded the present value of these future obligations at the time the goods were received, services performed or liability incurred, at the respective balance sheet dates,* ***PSP would report in these financial***

> ***statements a deficiency of assets, i.e., liabilities would exceed assets and thus pilots' equity would be negative.*** *(emphasis added)*

This is auditor speak for saying that the PSP now has no visible means to pay its obligations and it is underwater. In 2007, the pilots addressed the issue by requesting a line item in the Puget Sound tariff to cover the cost of the retirement program. Legal issues were raised at the hearing and the matter was deferred. Legal delays continued until the 2009 legislative session when the legislature resolved them by adopting language in RCW 88.16.035(e) providing that *". . .as an element of the Puget Sound pilotage district tariff, the board may consider pilot retirement plan expenses incurred in the prior year in either pilotage district. However, under no circumstances shall the state be obligated to fund or pay for any portion of retirement payments for pilots or retired pilots."*

This cleared the way for a renewal of the pilots' request for a line item. The request was made at the August 2009 board meeting. When the board defeated industry's motion to table the request, PMSA and the industry members of the board intentionally walked out of the meeting to deprive the board of a quorum and prevent consideration of the pilots' request. As an alternative, in October of 2009, the board chair suggested use of a tariff policy to deal with this issue. This policy has been under discussion for the past two years.

A Clear Record in the Tariff Setting Process is Essential to Restore the Grays Harbor Retirees' Right to Retirement Benefits

Over the last 20 years, the board has devoted considerable attention to retirement problems in Grays Harbor. In 1991 the board enacted what is now WAC 363-116-315:

> ***Retirement disbursement.*** *Pilot associations having retirement plans,* ***the expense of which is reimbursed through Board established tariffs****, shall make such payments to retired pilots as are required by the benefits and enforcement provisions of those plans. (emphasis added)*

At the time of this WAC (indeed, from the 1970s until 2006), the board specifically approved itemized expenses by motion at each rate hearing. These included retirement expenses. Thus, it was clear that the expense of the plan was "reimbursed through Board established tariffs". Pilot associations were legally bound to pay the benefits due.

Things got worse in Grays Harbor and the Port of Grays Harbor was forced to take over the pilotage service in 2001. At that time, there were two retired Grays Harbor pilots receiving benefits, one more about to retire and three other active pilots (two who moved to Puget Sound) who had accrued retirement benefits in Grays Harbor. The Port was unwilling to pay the benefits due to these pilots for prior service. The Grays Harbor Pilot Association owed the benefits but was going out of existence with the Port takeover.

The board stepped up at the request of industry and the Port. It increased the Puget Sound rate $8 per assignment specifically to provide funds to PSP to subsidize the Grays Harbor retirees. It also added a pension line item to the Grays Harbor tariff, the proceeds of which would go to PSP to partially reimburse the cost of Grays Harbor obligations:

> **WAC 363-116-185 (GHPD .64% increase):** *It was moved by Commissioner Addington and seconded by Commissioner D'Angelo to amend the Grays Harbor Pilotage District tariff to reflect the reallocation of tariff funding of pension expenses, based on a benefit increase of 1.25% to 1.5% per year of service, and to define the amount to be remitted to Puget Sound Pilots which, combined with revenue derived from the tariff for the PSPD, will satisfy the pension expense requirements of the GHPD. Specifically:*
>
> - *To establish a new line item in the GHPD tariff titled "PENSION CHARGE".*
> - *To set the PENSION CHARGE rate at $101.00 per pilotage assignment, including cancellations.*
> - *This adjustment in the GHPD tariff is to be effective on the soonest permissible date.*
> - *Unless the Pilotage Commission takes specific action to extend this increase, the above tariff adjustment will expire at the end of the current tariff period.*
>
> *It is understood that the PENSION CHARGE rate has been defined by dividing gross pension expenses for Grays Harbor and Puget Sound by the total number of pilotage assignments, including cancellations, for Grays Harbor and Puget Sound. The gross tariff expense to be recovered through the GHPD tariff has been derived by multiplying the PENSION CHARGE by the total number of pilotage assignments, including cancellations, within the district for the preceding year. The motion carried unanimously.*

August 9, 2001 Minutes.

Every year since 2001, the board has amended the amount of this Pension Charge to reflect the methodology set out in the motion. Funds collected by the Port are forwarded to PSP and PSP adds the funds necessary to pay the benefits due to Captains Watson, Hoyne, Flavel and Werner from their Grays Harbor service. Captain Dietrich died last year and PSP now pays benefits to his widow. PSP currently pays approximately 80% of the Grays Harbor retirement expense and the other 20% comes from the Grays Harbor Pension Charge.

Because the Grays Harbor Pilot Association went out of existence in 2001, these retirees only right to benefits was based on WAC 363-116-315. There is no contract between PSP and the Grays Harbor retirees. The WAC does not apply unless the tariff reimburses the cost of the program. This requires some action of the board to include the cost of the plan into the tariff.

A review of the board's rate files until 2006 shows a clear and irrefutable record that retirement costs were specifically built into the tariff. A copy of a typical tariff calculation sheet and expense itemization from 1995 Puget Sound tariff in the board's files is attached as **Exhibit D**. Similar calculations in the board's files after 2001 triggered the mandatory provisions of WAC 315. Until 2006, because the board specifically added funds to the Puget Sound tariff to cover the costs of the Grays Harbor plan, PSP was obligated by the WAC to pay the Grays Harbor retirees.

When the board set the tariff in 2006 without itemizing expenses, it broke this link between the tariff and reimbursement of the cost of the retirement programs. It took no action that could be tied in any way to the cost of the retirement plan.[4] There was no longer any indication, record or document indicating that the tariff being set included the cost of the retirement program. In fact, it became clear in the 2009 rate hearing that the board was not reimbursing the cost of the programs. In that year, there was no rate increase despite a $300,000 increase in the cost of the retirement programs. **Therefore, as things stand now, the Grays Harbor retirees have no right against any party to collect retirement benefits.** Itemization of the retirement expense in the

[4] WAC 363-116-315 requires action on the part of the board. The fact that PSP used funds from the tariff does not mean that the cost of the plan is reimbursed through the tariff. PSP has no income other than the tariff so an assertion that anything paid by PSP is being "reimbursed through Board established tariffs would render WAC 315 meaningless. In drafting the WAC the board retained the ability to "trigger" its provisions and it was never intended to apply to all expenditures of the association.

VEC will reestablish this missing link and restore the right of the Grays Harbor retirees to receive benefits.[5]

The Amount of Retirement Expense to Use in the VEC

We do not expect any further retirements before the end of the year. The expense for the Puget Sound program for 2011 will be $2,624,724. The gross expense of the Grays Harbor program being paid by PSP will be $109,738. The only unknown remaining is how much the Port of Grays Harbor will contribute by year end. It has paid $27,913 through the end of August. If it continues at this rate, its total contribution will be $41,869, leaving a net expense to PSP of $67,869. Adding this Grays Harbor component to the cost of the Puget Sound program (which includes the cost of Grays Harbor pilots who retired as Puget Sound pilots) gives a total 2011 retirement expense of $2,692,593.

Thus, PSP requests that the board put $2,692,593 into the VEC calculation for the 2012 tariff.

[5] Pending resolution of the issue, PSP has continued to pay benefits to the retirees, but these retirees should not be forced to rely solely on the largess of PSP. They are entitled to a legal right to benefits that would be provided by the record made in the VEC setting process.

The Comp Day Expense Component to the VEC

The board is charged with maintaining an efficient pilotage service that helps keep our ports competitive. The comp day system in place in this district for at least 35 years (and probably a lot longer) is a crucial tool for doing this. It works every day to save industry money and keep ships moving. It has saved millions of dollars over the years – it saved $10 million during the recent five year pilot shortage alone – and it will continue saving money into the future. It has kept our ports competitive by providing a pilot to ships when requested. The system has existed so long because it works.

The system is straightforward. When there is no rested pilot available to move a ship at the requested time, the PSP dispatcher calls the off duty pilots to find a volunteer who will take the assignment. Over the last 10 years, pilots have responded to these calls 4,578 times and gone to work to move ships when off duty. When this occurs, that volunteer receives a comp day. Comp days can be used when the pilot is sick or takes a day off for personal reasons or they can be accumulated and "burned" at the end of a career. 3,405 comp days have been taken or burned over the last 10 years - 2,901 were randomly taken and 507 were burned prior to retirement. The comp day system helps industry every day, either by finding a pilot to get a ship moved on schedule or saving it money by keeping the pilot corps lean. The only cost associated with the program is payment for that very small percentage of the days that are burned at the end of a career (15 to 20% of those earned).

Comp days are also an important part of the safety net provided by the pilotage system. The comp day system promotes safety because it is voluntary and provides a way for sick pilots to take the day off. The board has never funded sick leave, and PSP has no provision for short term sick leave other than comp days. Comp days allow a pilot to take a sick day off without financial penalty.[6] Other districts, deal with this differently. For example the tariff on the Columbia River funds ten compensated days per year of service (up to 180) that can be used for sick leave or time off or be accumulated and burned at the end of a career.

Another key safety feature of the voluntary system is that the off duty pilot being asked to go to work can always decline the job if fatigued. Some pilot systems simply dispatch the pilot in rotation regardless of rest (San Francisco). Others use mandatory call backs

[6] PSP does have a long term illness program funded by the pilots and triggered after 28 days, to pay pilots for up to 6 months if unable to work due to major illness or injury.

that require a pilot to take a job irrespective of fatigue. The mandatory call back systems tend to spread the accrued comp days more evenly among the pilot corps but lack the safety of a voluntary system.

Because our system is voluntary, it does not evenly spread comp days. PSP currently has 3,270 days outstanding among 54 pilots. This averages about 61 days per pilot. Our pilot corps has a total of 675 years of accumulated service. This is an average accumulation of 4.8 comp days per year of piloting. The days are not spread evenly. Here is the breakout:

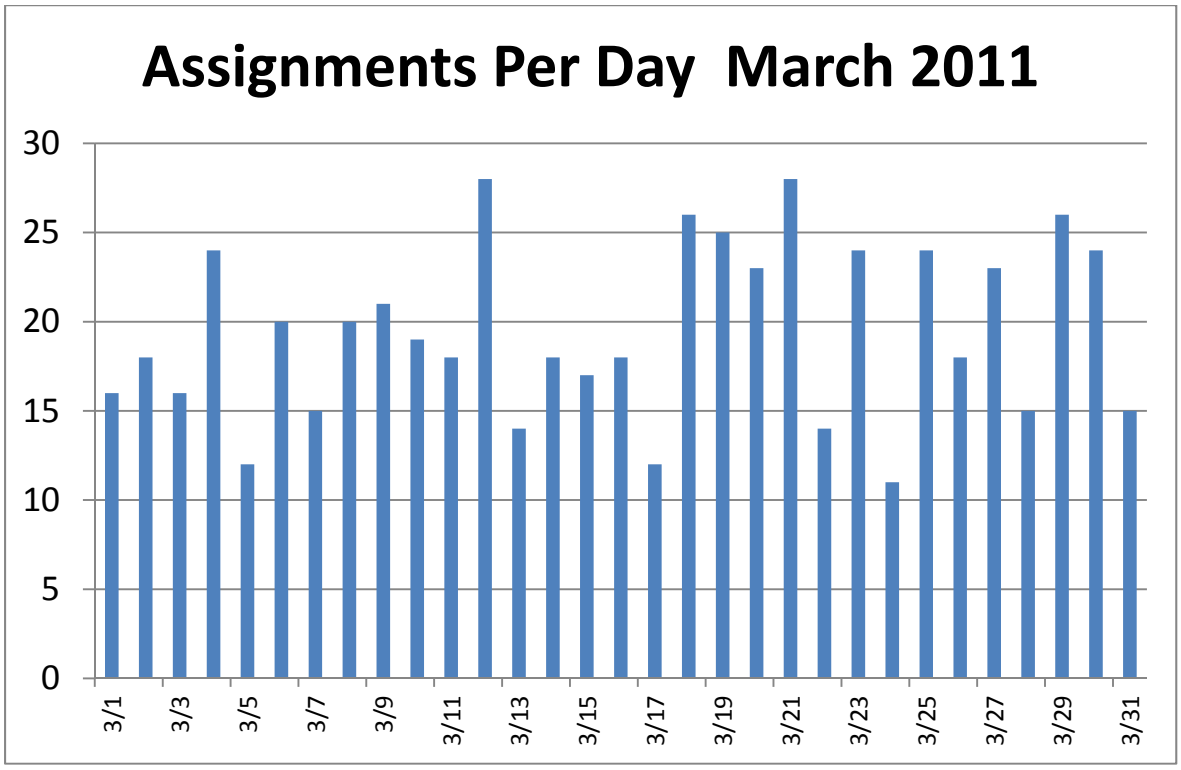
Number of Pilots	Number of Comp Days	Percentage of Membership
2	300 to 400	3.8%
3	200 to 300	5.7%
5	100 to 200	9.6%
6	61 (average) to 100	11.5%
36	Less than average of 61	69.2%

As this chart shows, 10 pilots have 2,016 days – 61% of the total outstanding. These ten pilots have a total of 239 years of piloting and have accrued an average of 8.4 comp days per year of service.

Cost Savings Achieved by the Comp Day System in a District with "Lumpy" Ship Traffic

Ship traffic in Puget Sound is extremely uneven. The daily variation in the number of jobs makes use of comp days inevitable unless the board wants to increase the number of pilots. For example, in 2011 it appears that the pilot shipboard work load will be very close to the Target Assignment Level set by the board of 145 ship assignments per year. At that level, we expect to accrue an additional 70 comp days after factoring out the days burned by pilots no longer moving ships. (The total outstanding days may actually decrease, but this is due to pilots burning days at the end of their career.)

The chart below shows a typical month of daily traffic variation. This traffic is unpredictable. The only traffic in the district that can be predicted with enough certainty to staff for is the cruise traffic and PSP has responded. It has put three additional pilots on duty each weekend during the cruise season to address this predictable demand. This cannot be done with other traffic. Even the container ships which run on a "schedule" often do not arrive when anticipated and cannot be planned for. In fact, even summer weekend traffic is not consistent. As recently as August of this year there were 89 and 61 assignments on successive weekends – a 48% difference in one week.



The Comp Day System's Efficient Use of Pilots Saved Industry $10 Million During the Pilot Shortage of 2004 to 2008

There are two alternatives to the comp day system – increase the size of the pilot corps or delay ships. One is inefficient and expensive and the other would harm port competitiveness. A major reason that pilot rates in Puget Sound are so low in comparison to other ports is the efficiency provided by the comp day system.

For example, during the pilot shortage from 2004 to 2008, we accrued 1,259 net comp days (3,366 were earned and 2,107 were used). During these years, the board had an

average of 52.5 pilots but it would have taken 55.7 to keep to the then target assignment level of 149. As we are learning this year, staffing at the target assignment level is not enough to avoid comp days. Our traffic is too erratic. Assuming conservatively that the board would need to license two more pilots above the TAL to avoid comp days, the pilot corps would have had to average 57.7 during the five year shortage. This is a savings of 5.2 pilots per year or a total of 26. This brings the gross industry savings figure up $10,400,000.

As pointed out above, there are costs associated with the comp day system when a pilot burns a day at the end of his career. We know that 1,259 comp days were created during that shortage. History shows that the overwhelming majority of comp days earned are used by pilots to cover illness or take selected days off. They are not saved until the end of the pilot's career. When a comp day is used before a pilot stops moving ships, the "cost" of that comp day does not become an expense and industry is never asked to pay for it. The liability is erased from the PSP books when the pilot uses the comp day.

Capt. Robert Kromann's career is a good example. Capt. Kromann retired in 2010 after 30 years of service. During those 30 years, he earned a total of 201 comp days (51 during the 2004-2008 shortage). He used 158 of these days (79%) over the years for illness and days off. He retained 43 (21%) to be burned after he stopped moving ships in February, 2010. This ratio of days earned to days burned is consistent with other pilots. On an overall basis over the last ten years, the entire pilot corps earned 4,758 comp days and used 3,408 of them. 507 (15%) were burned by pilots after they stopped moving ships. The other 2,901 (85%) were used for illness or to take time off.

21% of the 1,259 days created during the shortage is 264 days which equals 1.5 pilot years compared to the 26 pilot years that would have been needed to avoid comp days. Thus, the actual expense of the system during these years is $600,000 rather than the $10,400,000 needed to carry the 26 pilots. The comp day system saved industry $9.8 million during these five years.

This is 8% of the total funds (excluding transportation) raised by the tariff during that time. Stated otherwise, it would have taken an 8% increase in the tariff left in place for five years to get by without the comp day system during that shortage. These savings will continue. Carrying the extra two pilots above the TAL needed to avoid comp days would cost $800,000 per year, which would require an ongoing 2.7% increase in the tariff.

Of course, this is only the economic side of the issue. If the comp day system had not made these pilots available during the shortage, our ports would have suffered severe and crippling ship delays.

The Comp Day System Facilitates Port Competitiveness by Providing a Rested Pilot on the Schedule Requested by Industry

Delays are almost unknown in this district due to the comp day system. It is the oil that keeps the ships moving on schedule. In mid-2006, PSP started tracking delays caused by the unavailability of a rested pilot. From that time through the end of 2008 there were only 16 ship delays out of 20,000 sailings. This was during the shortage at a time when pilots did more than 1,000 assignments over and above the then TAL of 149.

The pilots were able to avoid delays primarily because off duty pilots were willing to go to work when needed. Throughout this period, it was often very difficult to find a pilot rested enough to move a ship at the requested time. For example, during the summer of 2008 our dispatchers went completely through the roster of off duty pilots on average six times a month to find pilots able to move ships. Many **off-duty** pilots were called back, literally within 60 seconds after the rest period from their prior job expired.

Comp Days in the VEC

While the comp day system saves millions of dollars per year and fosters port competitiveness by keeping ships moving, it does have a much smaller, but highly variable cost when the pilots burn days at the end of their career. Indeed, some of the workhorses who kept ships moving during the shortage years are about to retire.

Up until 2006 when the board stopped mathematically calculating the tariff, the cost of pilots burning days was funded through the tariff by considering these pilots as “active” when setting the number of pilots for the tariff computation. This construct worked for the tariff calculations but it caused confusion. There were always two different “numbers of pilots” – one for the tariff and one for workload issues.

This confusion has now been largely eliminated. Starting January 1, 2011, on advice of the auditors, payments to pilots for comp days paid after the pilot’s license has expired are now treated as a contractual expense by PSP. Former pilots without a license are no longer PSP members and PSP’s liability to them is a contractual one. (Pilots retaining a license while burning days are still PSP members and payments to them are

still considered distributions rather than a contract liability.) It is only the payments to non-members that PSP requests be added to the VEC.

This expense will vary greatly from year to year. Adding it to the VEC will allow the tariff to go up and down as the expense changes. It will protect industry by preventing an increase in the tariff enacted one year from becoming a permanent part of the tariff base. Here is a chart of anticipated PSP liability for comp day showing how dramatic the variation will be from year to year:

Year	Amount
2011	$285,664
2012	$578,560
2013	$869,829
2014	$423,645
2015	$398,348

The pilots ask that the 2012 figure of $578,560 be added to the VEC for this tariff hearing.

The Pilot Training and Technology Component of the VEC

Board encouragement of pilot continuing education and use of technology is at the heart of the board's mission. As we have seen, these costs vary from one year to the next. In today's world, these swings will be greater as ships get larger and technology plays a more important role in preserving the safe movement of ever more challenging ships.

In the past, pilot spending on training has been relatively consistent from year to year. This changed with *Cosco Busan*. In 2009 the pilots added many new classes – Risk Resource Management, Escort Team Training and PPU instruction. Added to that was the cost of the PPUs deployed to the pilots in April of 2009. All told, PSP (and its LLC) spent over $400,000 that year on new education and technology equipment. Because there was no rate increase that year, all of these costs were borne directly by the pilots themselves. This, and other expense increases during this time is one of the reasons that pilot net income has declined 13% over the past three years.

The challenges presented by the mega ships now calling in Seattle and Tacoma and transiting ever more constricted waterways require the pilots to again look at educational and technology solutions. We are in the process of designing educational programs to assist pilots in moving these large, deep ships in tight quarters.

If the recent experience of the Pacific Pilotage Authority (the BC pilot regulatory board) and the BC Coast Pilots is any indication, the new technology and the training that goes with it can be quite expensive. The PPA and the BC Coast Pilots recently implemented measures needed to safely move deeper draft tankers through the Second Narrows Bridge at a cost of $2.85 million broken down as follows:

- $500,000 for new navigation aids paid for by the Port of Vancouver;
- $250,000 for initial purchase of 10 trial PPUs paid for by the terminal operator (Kinder Morgan);
- $900,000 for remaining PPUs (total of 100) paid for by the Pacific Pilotage Authority with revenues from the tariff; and
- $1.2 million for pilot training on new equipment and tanker escort techniques, paid for by the PPA with revenues from the tariff.[7]

The pilots bore none of the cost of these safety measures – they were financed or facilitated by the pilot regulatory authority.

PSP is putting together a new training program for the deeper draft ships in the East Waterway and it hopes to have all of its members trained in this new program in 2012. Preliminary estimates from PMI are $3,500 per day plus development costs. We expect this to total approximately $105,000 plus the normal RRM, E-Nav, Tanker Escort and Manned Model Courses which will cost $254,000.

The total pilot training for 2012 is estimated to cost $359,000. PPU costs will total $71,000 representing remaining depreciation debt on the units, licensing upgrade fees and unit repair and reconditioning costs. The pilots request that these amounts be calculated into the 2012 VEC for these two components.

[7] Information provided by PPA.

In 2013, we expect to acquire a new generation of PPUs and the cost of that equipment and the necessary training of pilots to use this new generation of safety equipment will be in the next tariff request.

The Fuel Cost Component

No expense is more unpredictable than fuel. The advantages of using a variable fee mechanism to cover this cost has been widely adopted in all segments of the transportation industry, most notably in the maritime field. Fuel surcharges have become the norm. The cost of shipping goods by sea has varied greatly over the past few years due to these charges employed by all major ship operators. Because of its unpredictability and wild swings, a fuel component to the VEC is appropriate to make sure that the tariff includes the actual cost of this essential commodity and no more.

Predicting fuel costs for 2012 is impossible, so PSP suggests using 2011 fuel costs in calculating the VEC. Year to date costs are $324,009 through the end of September. This translates to $56 per assignment. Using last year's assignment numbers for the remainder of this year indicates that fuel costs will total $419,960 for 2011. This is the number that the pilots request be used for the VEC

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Revenue Needed from the 2012 Tariff

The 2012 Revenue Goal - Expenses

Historically, the tariff is set at a level sufficient to cover the expenses of providing the service and to provide an appropriate net income. We will know more about expenses by the time of the hearing in November, but it appears that 2011 operating expenses will be about $11.3 million.

This is higher than in 2010 for a number of reasons. Effective January 1, 2011, PSP acquired a group medical insurance policy covering its members. This "new" expense increased PSP's expenses by $1.44 million (and decreased the Individual Business Expense by the same amount). PSP also started paying the board's license fees on behalf of its members which added another $350,000 (which also decreased the IBE by the same amount). Also new this year is a comp day pay out of approximately $300,000 to former PSP members.

In 2010 total IBE and association expenses were $11.2 million and in 2011 they are expected to be $11.9 million. Looking forward to 2012, our total individual and association expense budget is 12.4 million. Cost increases are partially offset by decreases in depreciation expenses as the second pilot boat becomes fully depreciated and the IBE is not expected to change materially.

The 2012 Revenue Goal – Pilot Net Income

Puget Sound Pilot Net Income Continues to Lag Behind the National Average

At last year's hearing, some members of the board expressed frustration with the lack of credible evidence on the issue of pilot net income. To remove the speculation and misinformation on this topic, the pilots have asked the nation's leading expert on comparable pilot income, economist Brent Dibner to prepare an analysis of pilot earnings for the board. Mr. Dibner has done extensive reporting and testifying before other pilot boards and works for a wide variety of companies in the maritime field. His report is being submitted to the board for its consideration and is attached as **Exhibit E.**

One of the challenges is to determine an apples-to-apples comparison, taking into account differences by pilot groups in treatment of medical insurance, retirement, license fees, etc. Mr. Dibner's methodology equalizes these factors.

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Pilot Earnings around the Country have not Declined during the Current Economic Cycle as they have here in Puget Sound

Pilot earnings in Puget Sound have gone down $46,000 (13%) in the three years from 2007 to 2010. Mr. Dibner's 2008 reports showed average net income figures of $383,000 and his current attached report shows earnings of $407,000. The decline in earnings here is counter to the trend across the country. While there are indications that income will go up here in 2011, it will remain considerably below other ports.

Mr. Dibner notes that one of the reasons that earnings have gone up elsewhere are the tariff increases that have gone into effect over the last three years:

District	2008	2009	2010	2011
Columbia River			21.73%	7.72%
Sabine River		7%	7%	6.5%
Houston	6%	7%	8%	
Brazos		3%	3%	3%
Corpus Christi	7%	6%	4%	4%
Pascagoula	5%	5%	5%	CPI
Mobile	6%			
Tampa Bay		6%		
Galveston		5%	4%	4%
Crescent River	5%	6.1% on Expenses	CPI	CPI

In contrast, rates in Washington over these four years have been 5%, 0%, 3% and 0%.

Mr. Dibner's net income is an apples-to-apples comparison to the $305,323 figure on page 21 of the 2010 PSP audited financial report. He uses the term net income to mean what is generally accepted as salary for an employee. Thus, the $407,000 is in addition to medical and disability insurance and retirement benefits. We expect that page 21 of the PSP's 2011 audited financial statement will show a higher net income–perhaps in the $330,000 to $340,000 range. This leaves pilots in this district $67,000 to $77,000 below the national average.

It would take a 13% tariff increase to restore Puget Sound earnings to national levels for 2012. We suggest that this be done over two years and that the board set the tariff to generate net pilot income of $380,000 in 2012. Using a pilot income figure of $380,000 indicates that the income component of the tariff needs to produce $19,760,000 to cover 52 pilots.

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Computing the Total 2012 Tariff Adjustment

Based on the expense components discussed above, the pilots request that the VEC for 2012 be set at $663 for each assignment except cancellations, Zone I jobs (harbor shifts) and any assignment on a vessel less than 450 feet in LOA. The VEC is computed as follows:

Variable Expense Component of the 2012 Tariff	
Retirement Expense for both districts (net of Grays Harbor payments) 2011	$2,692,593
Comp Day Liability 2012	$578,560
Pilot Training 2012	$359,000
Pilot Navigation Technology 2012	$71,000
Pilot Boat Fuel Expense 2011	$419,960
Total Expenses for VEC	$4,121,113
Number of Qualifying Assignments 2011	6,217
Surcharge Per Assignment	$663

A tariff expense estimate of $12.4 million and an income goal of $19.8 million produces a total 2012 tariff revenue requirement of $32.1 million plus transportation. As 2011 progresses we will know more about this year's revenue and expenses and the numbers in this calculation will be refined. Current projections show that revenue for 2011 (not including transportation) will be $29.6 million. Thus, the 2012 tariff should be set to raise an additional $2.5 million.

The VEC will create $4.1 million in revenue, $1.6 million more than is needed to reach the $32.2 million revenue requirement. Applying this $1.6 million decrease to the other tariff charges indicates that they should be reduced 5.4% ($1.6 million is 5.4% of 2011 revenue of $29.6 million).

Therefore, the pilots request a VEC of $663 and a reduction in all other tariff charges except transportation and training of 5.4%. The pilots request that domestic

transportation charges remain the same and that the BC transportation charge be increased by the CPI of 2%.

To implement the VEC the pilots request that the following language be put into the tariff immediately before the LOA Rate Schedule:

Variable Expense Component:

A Variable Expense Component in the amount of $663 per assignment shall be charged on all assignments other than Zone I assignments, cancellations and assignments on ships less than 450 feet LOA.

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The Rate Adjustment will Retain Rates in Puget Sound Lower than those of Other West Coast Ports and will bring the Rate Structure more into Line with those Ports

In comparison to other ports, our tariff has always been very generous to smaller ships. The cost of bringing almost all ships here is lower than other West Coast ports with state pilots but it is much lower for the smaller ships. For example, one of the most common ships calling at these ports is the 7 hatch bulk ship. These ships are typically around 740 feet LOA and 36,000 tons. Here are the one way pilotage fees for the bulk ship *Joyous Age* in our 4 closest ports:

Port	One Way Charge
Tacoma	$3,469
San Francisco (Redwood City)	$7,187
Portland	$12,496
Vancouver, BC	$5,121
Grays Harbor	$8,188

We are 33% lower on this ship than the closest cost port of Vancouver, BC. Adding a flat VEC charge and reducing the other tariff charges will have more of an impact on these smaller ships than on larger vessels and will bring them more into line with what those ships pay in other ports. With the VEC, the charge for this ship going to Tacoma would go up $495 but would still be 22.6% lower than the ship pays in Vancouver (and 68.3% less than the ship pays to go to Portland!).

The VEC has much less of an impact on larger ships. For example, the proposed tariff would only add $251 to the cost of bringing a large container ship the size of the *Maersk Kiel* to Tacoma. Likewise, the cost of taking the *Polar Endeavor* to Ferndale would only go up $260. All of these changes will bring our rate structure more into line with that in other districts.

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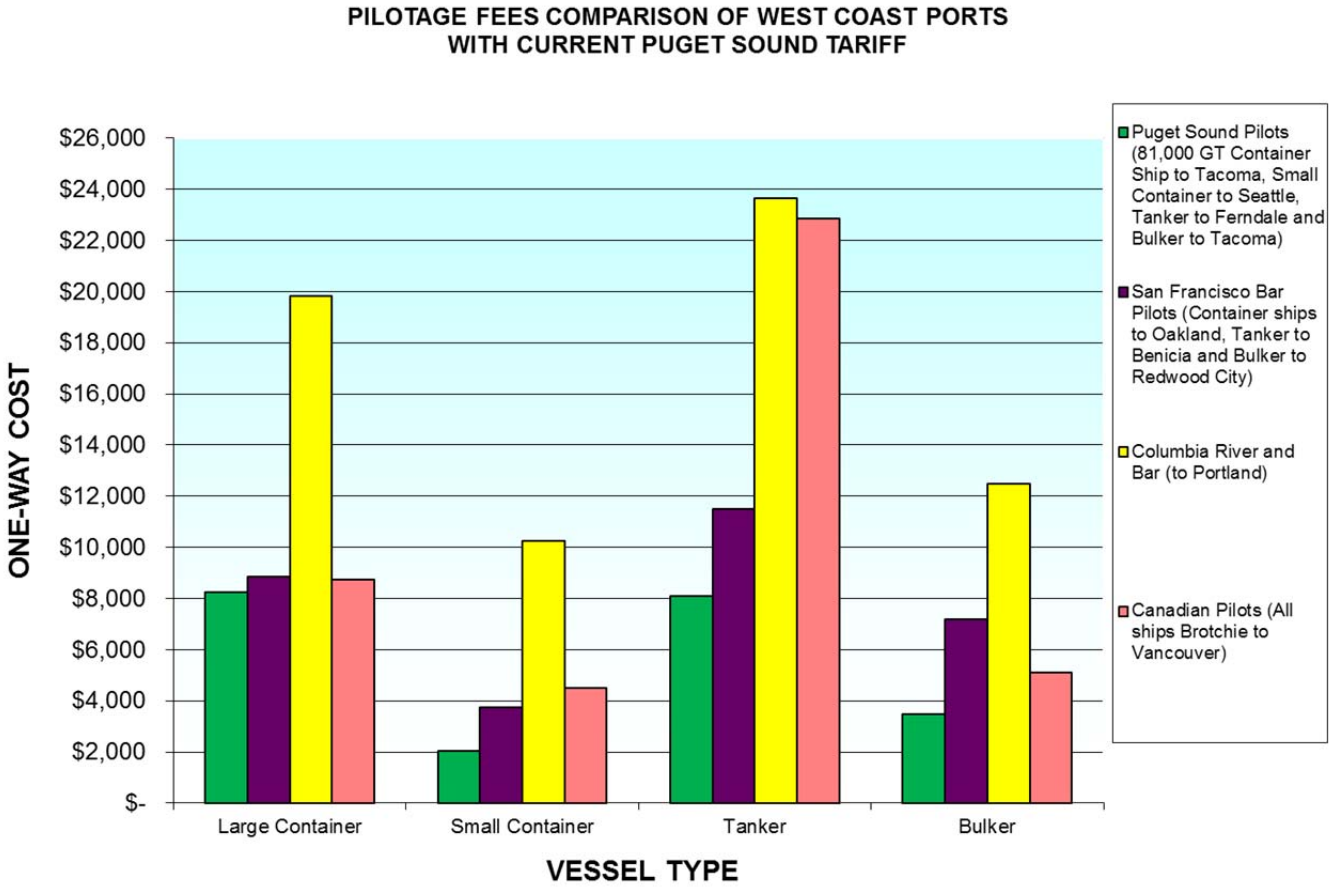
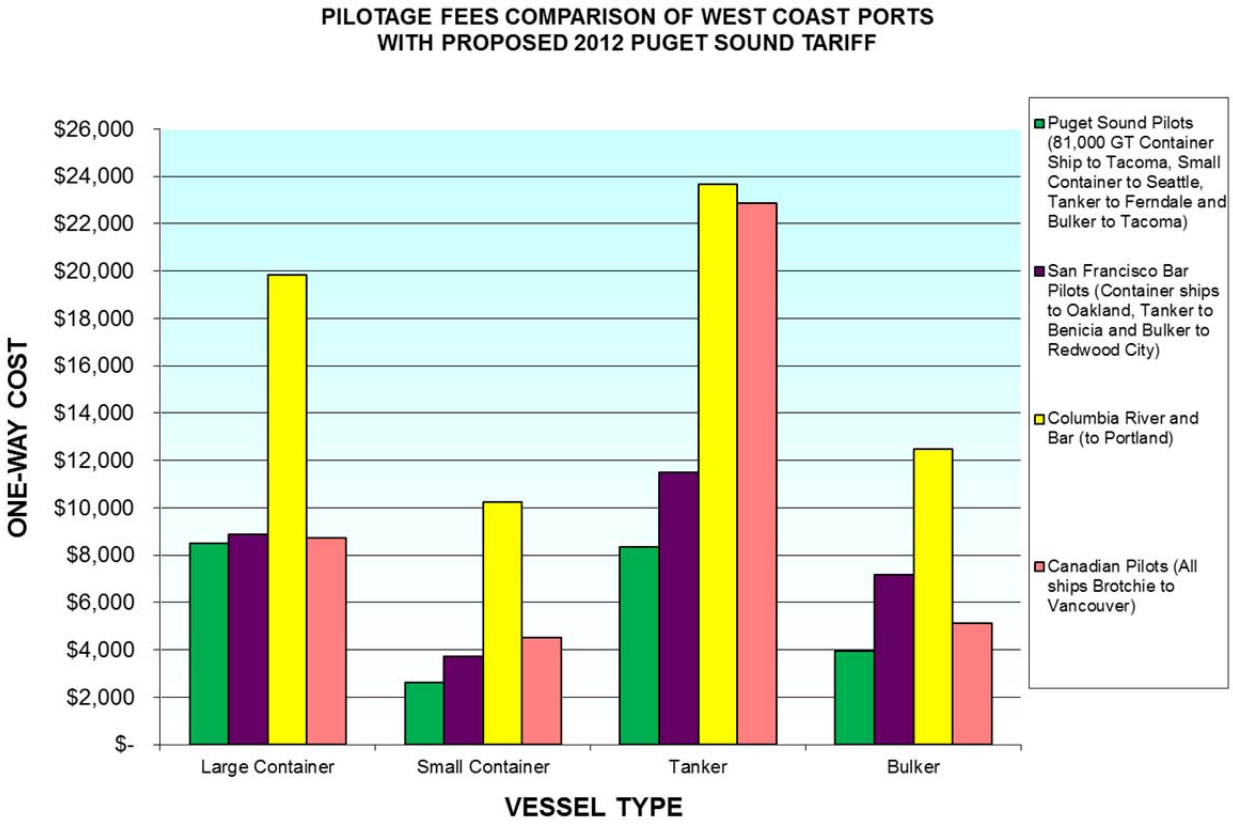
As in years past we have prepared a matrix of what particular ships cost in the four ports. The data for this chart showing the actual charges under the current tariff and under the proposed VEC tariff is attached as Exhibit F. This data in chart form is set out below.

Here is what the comparison chart looks like under the current tariff (Puget Sound is in green):



Here is what it looks like with the proposed tariff with a VEC charge:



Some suggest that pilotage fees in this district could have some impact on the competitiveness of our ports, *i.e.* that Puget Sound ports attract more traffic than our neighbors because our rates are lower. There is absolutely no support for this theory. The costs of pilotage are simply too small and the differences between ports are inconsequential. Of course, if asked, any ship operator will say that it wants to pay less for any product or service. But going one step further and considering pilot fees in selecting ports of call does not occur.

We only need to look at Grays Harbor. In discussions at the board of the cost savings that would be achieved if Puget Sound pilots were licensed to move ships in Grays Harbor, the port's executive director indicated that "Our customers are not complaining." This is despite pilot fees that are more than 2 ½ times higher than they would be in Puget Sound. Indeed, the port of Grays Harbor is undergoing a huge increase in traffic despite its high fees.

This is also true in the Columbia River ports. Last year's rate hearing in that district resulted in a whopping 27% increase in rates over a 6 month period. Rates there went up 20.14% in June, 2010, 1.59% in Sept., 2010, 5.17% in January 2011 and 2.57% in September, 2011. Despite this, there is no evidence of a reduction in traffic due to these fees. Complex logistical and economic factors – none of which are under the control of this board - change ship traffic in ports from time to time. These forces involve distribution centers, rail access, surface transportation and overall location and are much more fundamental than pilot charges.

There are aspects of pilotage that can affect port competitiveness, but they are not rates. They are operations. Smooth and safe operations are crucial to port competitiveness and achieving the proper balance between safety, environmental protection and the need to move ships is essential. The pilots have shown over the years that they are willing to do whatever it takes to move ships as efficiently and smoothly as is consistent with the public interest – whether it's keeping ships moving on time during the pilot shortage or developing educational programs and practices to meet the challenges of the new larger and deeper ships calling in our waterways. These mega ships increase industry's efficiencies, economies of scale and profit margins and the pilots are doing their part to make sure that they can safely be brought to our docks.

Conclusion

The pilots hope that the board will agree that the VEC offers a real improvement in the tariff process and adopt it at this year's hearing. It promises a fair and transparent method of addressing expenses and safety. It offers the board the ability to use its rate making responsibilities to directly promote its duty to provide a safe and efficient pilotage service for the citizens of the state and the shipping community.

The tariff setting authority is one of the most potent tools the board has to do its job. Itemizing some expenses will allow the board to utilize this tool. It will insure that industry only pays what is necessary and inform the public of some of the principles used by the board in setting the tariff. It also conveys to the applicant pool that the board is committed to creating and maintaining a first class pilotage service in this district with competitive compensation.

This last point is crucial. Your sister agency in British Columbia, the Pacific Pilotage Authority, regularly engages in Enterprise Risk Management which is a process by which they evaluate the likelihood and consequences of all risk factors threatening their

mission. They rank the ability to recruit high quality applicants as the number two risk they face. See PPA Risk Analysis, **Exhibit G**. The only greater risk the PPA faces is the criminalization of mariner negligence which is part of the same recruitment problem. Open support of the retirement program and restoring parity in pilot earnings is the strongest recruitment tool at your disposal.

By openly stating how you are treating certain expenses the board also has the opportunity to guide this and future tariff proceedings. By taking the lead and establishing clear practices, the board will limit the scope of future controversies and promote negotiations. The board's use of the expense approval process to this end prior to 2006 did this very effectively.

The pilots have developed our proposal with the idea of providing the board with an opportunity to reestablish this framework. Perhaps we can return to the thirty minute rate hearings of the past. Our proposal is also structured to provide the board the flexibility to adjust to the ever changing challenges of the future. At a minimum, adoption of the VEC will result in a more streamlined and less contentious atmosphere. In the process, it will free the board to devote its energy to the truly important issues of safety, technology, training and recruiting entrusted to it by the legislature.

Respectfully Submitted,

Capt. David A. Sanders
October 13, 2012

Exhibit A Comparison of Pilot Retirement Programs (2011)

Jurisdiction	Benefits	COLA Applied?	Funded/Unfunded
Associated Branch , Louisiana	40% of active pilot share after 20 years and 50% after 25 years	Active Share	Unfunded
Boston	20% retirement	No	Unfunded
Charleston	25% of pilot share plus association funds 401k. Min 30 years and age 65.	Active Share	Unfunded
Columbia River and Bar	Entitlement to share of active pilot earnings frozen and pilots receive extra funding for retirement plan of $42,250 per pilot per year	Active Share	Unfunded, except for defined contribution portion
Crescent River, Louisiana	50% of active pilot share plus medical to age 65.	Active Share	Unfunded
Corpus Christi	$6,000 per month after 20 years	No	Funded Program
Galveston	Defined Benefit Plan	Yes	Funded
Houston	Defined benefit plan formula. Best 5 years of last 10 years maxed at 245,000. Association also funds 401k Plan	Yes	Funded
Jacksonville, Florida	With 20 years' service, 35%; 25 years of service, 50%	Active Share	Unfunded
Lake Charles	Association funded plan contributing $49,000 per year per pilot	Funded	Industry provides up to the maximum benefit of $49,000 for each plan participant
Los Angeles	2.2% per year of service applied to up to $245,000 of earnings	Yes	Funded by City of LA. Pilots contribute up to 6% of $245,000
Louisiana	1) 2% per year, max salary 2) 50% at 25 years	Active Share	Unfunded

Jurisdiction	Benefits	COLA Applied?	Funded/Unfunded
Maryland	40% active pilots' income at 25 years of service 1.5% per year	Active Share	Unfunded
Miami	2% active pilots' income times years of service; 50% maximum	Active Share	Unfunded
New Orleans	50% of active pilot share plus medical.	Active Share	Unfunded
Pennsylvania; Delaware	1.0% per year, max 40% of active pilot share	Active Share	Unfunded
Port Everglades	After 20 yrs, 50% of active share for life, total expense of plan capped at 20% of gross	Active Share	Unfunded
Puget Sound	1.5% per year of service times average net earnings of pilot's last 3 years; no maximum	No	Unfunded
Sabine River	After 20 years, 50% of pilot share but total payments capped at 20%	Active Share	Unfunded
San Francisco	1.84% times number of years of service times average of pilot's highest 3 years net income during the preceding 5 years	Yes, may be adjusted up to maximum of half percentage change in CPI during previous 3 years	Unfunded
Sandy Hook	50% average salary at 60 with 25 years service	Active share	Unfunded
Savannah	25 years service 66.6% of active pilots' income	Active Share	Unfunded
Tampa Bay	20% share and 65% lump sum payment over 3 years	Active Share	Unfunded
Virginia	$50,000 per year	No	Unfunded
Wilmington – Cape Fear	33.3% share	Active Share	Unfunded

Before the
Board of Pilotage Commissioners of
the State of Washington

Testimony of
Captain George A. Quick, Vice President, Pilot Membership Group
International Organization of Masters, Mates and Pilots
October 13, 2011

My name is George A. Quick and I am the vice president of the International Organization of Masters, Mates and Pilots. Our organization represents the masters and deck officers on U.S. flag ships and pilots throughout the United States. I head the Pilot Membership Group of that organization and as part of my duties I liaison with pilot associations around the nation and keep them informed of events in the pilotage community. I monitor ongoing events including rates and regulations in the various States. As a result I am generally familiar with conditions and standards that prevail in pilotage throughout the United States. In the course of my duties I talk to many of the applicants from around the country who are interested in becoming pilots. I am often asked where these officers should apply and where they should avoid. I get feed back from the various pilot groups around the country as to the basic outlines of their compensation, retirement programs and I am familiar with the manner and amount of pilot compensation and retirement programs in the maritime industry and in pilot groups around the country.

Pilot Retirement Programs

The overwhelming majority (about 80%) of state licensed pilots in the United States are covered by unfunded retirement programs somewhat similar to the ones in Puget Sound and Grays Harbor. The common feature of these programs is that money out of current revenue is paid to retired pilots prior to

distribution to active working pilots. Unlike the Puget Sound program, most of these programs pay retired members a percentage of the active pilots' earnings. For example, if an active pilot makes $20,000 in March of any given year and the retired pilot has a 25% benefit, that retiree would be paid $5,000 for that month. These programs keep pace with inflation. Other pilot programs that base the benefit on income at the time of retirement, typically have Cost of Living Increases to avoid the retirement benefit being eroded over time.

The Puget Sound program is highly unusual in that it has no inflation protection whatsoever. It bases benefits on a specific amount determined at the time of retirement and does not increase the payment over time to keep up with inflation. The only other plan that I have identified that has no inflation protection is the one covering the Virginia pilots.

As a result, the Puget Sound program costs a smaller percentage of gross revenue than many other programs – both in pilot groups and in industry. A typical pilot retirement program will have an annual carrying cost of between 14% and 18% of gross revenue. In private industry in which the MM&P retirement plan is an example, funding for plans can typically represent in excess of 25% of a company's total employee cost. Because the Puget Sound benefit is not protected against inflation, its carrying costs currently are less than 10% of the association's gross revenue.

As is the case with Puget Sound, many of the pilot programs around the country were negotiated and agreed to by industry before going into effect. Industry prefers unfunded retirement plans because they cost less to administer, they are completely transparent and they do not carry any investment risk on the part of the industry. Because there is no fund to be administered, there is no investment risk or administrative expense associated with pilot programs. All funds spent on the program go directly to the retirees.

In some non-maritime sectors funded defined benefit plans have fallen out of favor due to the investment risk. A drop in the stock market or the value of other assets in the funded plans can render the plan underfunded and require significant unexpected contributions from the employers. This is not a factor with unfunded pilot programs and is one of the reasons that they have remained so predominant in pilot associations around the country.

The piloting profession is uniquely dependent on having adequate retirement programs. This results from a number of factors – some of which are shared with other maritime employees and others are due to the unique vulnerability of the independent pilot today.

Most compelling is the Coast Guard's new medical evaluation process and the fact that pilots around the country are being told by the Coast Guard that they are no longer considered medically fit to pilot. I understand that Clay Diamond of the APA has addressed you on this issue, but this has become a major issue facing pilots and pilot applicants in this country. Pilots and applicants understand that pilots are uniquely exposed to the risk of a career ending medical condition. This results from many factors:

- Pilots must submit a full medical report every year, as opposed to every 5 years for non-pilot licensed officers;
- Because they have given up their industry position and seniority to join a pilot association, pilots have limited career options available to them if they are found not fit for duty. Senior officers working for industry can typically transfer to a shore based job if they are no longer able to work aboard ships. Pilot associations offer no such alternative;
- Pilots tend to be older with the expected age related medical issues due to the lengthy experience needed to develop the skills that are required in a competent pilot;

- Unlike other professions with medical licensing requirements, the Coast Guard does not make its decisions based on the recommendation of the examining physician. Rather, it reviews medical submissions from doctors and makes its own fitness determinations without ever seeing the pilot in what can be a career ending process that often appears to be arbitrary and without good reason ;
- Pilots are required to board ships at sea under all weather conditions, transferring from the pitching deck of a pilot boat to a ship by a rope pilot ladder and then a climb to the bridge of a ship that may be more than 100 feet above the water. As a result, state pilotage commissions like yours often impose high medical standards on pilots. For example, your physical standards in WAC 363-116-120 specifically require that a pilot be able to climb and descend a Jacob's ladder of up to 9 meters in height.
- It is easier for a pilot to become medically unqualified than many other maritime positions. Not only is the challenge of boarding ships at sea by small boats and pilot ladders ever present, but the mental stress and responsibility, and the physical strain of the piloting job is considerably higher than in other maritime occupations. Most pilots retire when they have to – not necessarily when they want to. When an aging pilot realizes that he no longer has the capability that he did when younger, a sound retirement program ensures that the pilot is not under financial pressure to continue working. This is a crucial part of the safety net provided by the pilotage system for the safe movement of vessels; and

- Not only do pilots have to contend with higher medical standards and unprecedented scrutiny, but daily exposure to at-sea boarding conditions increases the risk of injury on the job.

In pilot districts such as Puget Sound where applicants are required to have significant experience before being licensed, the physical and medical aspects of the job become paramount in the minds of applicants considering licensing. Typically, these applicants are of an age at which retirement is becoming very important. Almost all of these applicants have retirement plans in their industry jobs. When I talk to them about piloting opportunities around the country, they are very interested in the retirement programs offered by the various districts. More importantly, they are acutely aware today of the risks they undertake when they give up the protections of the retirement plans in their industry jobs. A district without a retirement program is at a significant disadvantage in attracting these masters.

Almost all pilot applicants have employer sponsored and funded retirement plans available to them in their industry jobs.

- Masters or mates sailing deep sea in the MM&P have a retirement benefit of 2% per year for the first 20 years of service, and 2 ½% for each year thereafter that is available at age 55 with a minimum of 20 years of service;
- Ferry system employees around the country are typically employed by governmental entities that offer public sector pensions;
- Most tug masters are also covered by retirement plans paying a percentage of earnings upon retirement with a COLA

Pilot Retirement Plans around the Country

Attached to this declaration is a sampling of the various pilot retirement programs from around the country. These programs cover approximately 80% of the pilots in the United States.

Signed this 13 day of October, 2011, in Baltimore, Maryland, under penalty of perjury under the laws of the State of Washington.

Capt George A. Quick, Vice President

International Organization of Master, Mates and Pilots

Comparison of Pilot Retirement Programs (2011)

Jurisdiction	Benefits	COLA Applied?	Funded/Unfunded
Associated Branch , Louisiana	40% of active pilot share after 20 years and 50% after 25 years	Active Share	Unfunded
Boston	20% retirement	No	Unfunded
Charleston	25% of pilot share plus association funds 401k. Min 30 years and age 65.	Active Share	Unfunded
Columbia River and Bar	Entitlement to share of active pilot earnings frozen and pilots receive extra funding for retirement plan of $42,250 per pilot per year	Active Share	Unfunded, except for defined contribution portion
Crescent River, Louisiana	50% of active pilot share plus medical to age 65.	Active Share	Unfunded
Corpus Christi	$6,000 per month after 20 years	No	Funded Program
Galveston	Defined Benefit Plan	Yes	Funded
Houston	Defined benefit plan formula. Best 5 years of last 10 years maxed at 245,000. Association also funds 401k Plan	Yes	Funded
Jacksonville, Florida	With 20 years' service, 35%; 25 years of service, 50%	Active Share	Unfunded
Lake Charles	Association funded plan contributing $49,000 per year per pilot	Funded	Industry provides up to the maximum benefit of $49,000 for each plan participant
Los Angeles	2.2% per year of service applied to up to $245,000 of earnings	Yes	Funded by City of LA. Pilots contribute up to 6% of $245,000
Louisiana	1) 2% per year, max salary 2) 50% at 25 years	Active Share	Unfunded
Maryland	40% active pilots' income at 25 years of service 1.5% per year	Active Share	Unfunded

Jurisdiction	Benefits	COLA Applied?	Funded/Unfunded
Miami	2% active pilots' income times years of service; 50% maximum	Active Share	Unfunded
New Orleans	50% of active pilot share plus medical.	Active Share	Unfunded
Pennsylvania; Delaware	1.0% per year, max 40% of active pilot share	Active Share	Unfunded
Port Everglades	After 20 yrs, 50% of active share for life, total expense of plan capped at 20% of gross	Active Share	Unfunded
Puget Sound	1.5% per year of service times average net earnings of pilot's last 3 years; no maximum	No	Unfunded
Sabine River	After 20 years, 50% of pilot share but total payments capped at 20%	Active Share	Unfunded
San Francisco	1.84% times number of years of service times average of pilot's highest 3 years net income during the preceding 5 years	Yes, may be adjusted up to maximum of half percentage change in CPI during previous 3 years	Unfunded
Sandy Hook	50% average salary at 60 with 25 years service	Active share	Unfunded
Savannah	25 years service 66.6% of active pilots' income	Active Share	Unfunded
Tampa Bay	20% share and 65% lump sum payment over 3 years	Active Share	Unfunded
Virginia	$50,000 per year	No	Unfunded
Wilmington – Cape Fear	33.3% share	Active Share	Unfunded

U.S. DEPARTMENT OF HOMELAND SECURITY U.S. COAST GUARD CG-719K Rev. (01-09)	**Merchant Mariner Credential Medical Evaluation Report**	OMB-1625-0040 Expires 6/30/2012

- Detailed guidance on the medical and physical evaluation guidelines for merchant mariner credentials is contained in Navigational and Vessel Inspection Circular (NVIC) 4-08.
- Additional information is also available at the National Maritime Center (NMC) Homeport website at: http://homeport.uscg.mil/mmcmedical
- Additional information can also be obtained from NMC at: Commanding Officer, National Maritime Center, 100 Forbes Drive, Martinsburg, WV 25404 or 1-888-I-ASK-NMC (1-888-427-5662)

Who must submit this form?

- ▶ Applicants seeking an original, renewal or raise-in-grade credential are required to complete this form (if a previous medical evaluation is not submitted within the past 3 years) and submit it to the U.S. Coast Guard.
- ▶ Guidance for required submission of this form is contained in Enclosure (1) of NVIC 4-08.

Instructions for Applicants

- ▶ Applicants are required to provide the applicant information in section I, medication information in Section III, and certification of medical conditions in Section IV.
- ▶ Applicants are required to sign and date the certification in section I of this form attesting, subject to criminal prosecution under 18 USC § 1001, that all information reported is true and correct to the best of their knowledge and that they have not knowingly omitted or falsified any material information relevant to this form.
- ▶ Applicants should also complete the release in section II of this form.

Privacy Act Statement

As required by Title 5 United States Code (U.S.C) 552a(e)(3), the following information is provided when supplying personal information to the United States Coast Guard.

1. Authority for solicitation of the information: 46 U.S.C. 2104(a), 7101[c]-(e), 7306(a)(4), 7313[c](3), 7317(a), 8703(b), 9102(a)(5).

2. Principal purposes for which information is used:
   a. To determine if an applicant is physically capable of performing their duties.
   b. To ensure that a duly licensed or certified Physician (MD or DO) / Physician Assistant / Nurse Practitioner conducts the applicant's physical examination/certification and to verify the information as needed.

3. The routine uses which may be made of this information:
   a. This form becomes a part of the applicant's file as documentary evidence that regulatory physical requirements have been satisfied and that the applicant is physically competent to hold a credential.
   b. The information becomes part of the total credential file and is subject to review by Federal agency casualty investigators.
   c. This information may be used by the United States Coast Guard and an Administrative Law Judge in determining causation of marine casualties and appropriate suspension and revocation action.

4. Disclosure of this information is voluntary, but failure to provide this information will result in non-issuance of a credential.

Applicant Name: _____ Date of Birth: _____

Previous Edition Obsolete

General Instructions for Medical Practitioner

1. The Coast Guard requires a physical examination and certification be completed to ensure that mariners:
   - ► Are of sound health.
   - ► Have no physical limitations that would hinder or prevent performance of duties (see below).
   - ► Are free from any medical conditions that pose a risk of sudden incapacitation, which would affect operating, or working on vessels.
2. The medical practitioner must ensure a complete history and physical are conducted and make recommendations as to the fitness of the applicant. Final approval of the mariner's status rests with the U.S. Coast Guard.
3. All examinations, tests and demonstrations must be performed, witnessed or reviewed by a physician (Medical Doctor (MD) or Doctor of Osteopathy (DO)) or nurse practitioner or a certified physician assistant licensed by a State in the U.S., a U.S. possession, or a U.S. territory. The verifying medical practitioner (VMP) who performed the examination must complete sections III, IV, VII, VIII, and IX of this form.
4. Detailed guidelines on medical conditions subject to further review are contained in NVIC 4-08 encl (3). Medical practitioners should be familiar with the guidelines contained within this document. NVIC 4-08 may be obtained from http://www.uscg.mil/hq/cg5/nvic/2000s.asp#2008 or by calling the nearest USCG Regional Examination Center, or the National Maritime Center (http://homeport.uscg.mil/mmcmedical) at 1-888-IASKNMC (1-888-427-5662).
5. Verification of medications in section III of this form includes questioning the applicant about any medications or other substances reported, reviewing relevant medical conditions to determine if the applicant has omitted any medications or other substances, and affirmatively reporting any omitted current medications or other substances where required.
6. All applicants who require a general medical examination must be physically examined by the verifying medical practitioner.
7. The verifying medical practitioner is not required to perform or witness every examination, test or demonstration. These may be referred to other qualified practitioners; however, they must be reviewed to the satisfaction of the verifying medical practitioner. The last page of this form contains a certification that the general medical examination, vision and hearing tests, as well as the physical demonstration of competence as appropriate, have been performed, witnessed or reviewed to the satisfaction of the verifying medical practitioner. Applicants who are required to complete a general medical examination are also required to complete vision tests, and they may be required to complete hearing tests and/or demonstrations of physical competence as appropriate. The verifying medical practitioner must sign and date the certification where indicated. This signature attests, subject to criminal prosecution under 18 USC § 1001, that all information reported by the verifying medical practitioner is true and correct to the best of his/her knowledge and that the verifying medical practitioner has not knowingly omitted or falsified any material information relevant to this form.
8. If the verifying medical practitioner is unable to determine the applicant's physical ability, the applicant should be referred to another healthcare provider who can properly evaluate and test physical abilities.

Instructions for Providing Proof of Identity

- ► **Applicants** shall present acceptable proof of identity to the medical practitioner conducting examinations.
- ► **Medical practitioners** must verify the identity of applicants before conducting examinations.
- ► Proof of identity shall consist of one current form of valid government issued photo identification.
- ► The following credentials are examples of acceptable proof of identity:

  Unexpired official identification issued by a federal, State, or local government or by a territory or possession of the United States, such as a passport, U.S. driver's license, U.S. military ID card or Merchant Mariner's Document/Merchant Mariner Credential.

Applicant Name: _____ Date of Birth: _____

Previous Edition Obsolete

Section I - Applicant Information			
Last Name:	First Name:	Middle Name:	Suffix: *(Jr., Sr., III)*
Age:	Date of Birth *(MM/DD/YYYY):*	Social Security Number:	

Applicant Certification *(to be signed by applicant)*

My signature below attests, subject to prosecution under 18 USC 1001, that all information that I have reported is true and correct to the best of my knowledge, and that I have not knowingly omitted to report any material information relevant to this form.

Date:	Printed Name:
	Signature:

How do you wish to be contacted? *(phone, e-mail, letter, fax)* Please include contact information below:

Section II – Release

I hereby authorize the verifying medical practitioner (VMP), who has signed the certification on page 9 of this form, to release to, or discuss with authorized Coast Guard personnel, any pertinent information in his/her possession regarding any physical or medical condition that may require review by the Coast Guard prior to determining whether the Coast Guard should issue a credential(s) for maritime service.

I understand that this authorization is voluntary. I also understand that failure to provide authorization could affect the Coast Guard's ability to make a timely determination as to whether the Coast Guard should issue me a credential(s) for maritime service. This authorization will remain in effect until the Coast Guard determines whether to issue me the requested credential(s) for maritime service, but no longer than one year.

I have read and understand the following statement about my rights:

- I may revoke this authorization at any time prior to its expiration date by notifying the verifying medical practitioner in writing, but the revocation will not have any effect on any actions taken before they received the notification.
- Upon request, I may see or copy the information described in this release.
- I am not required to sign this release to receive my medical evaluation.

Applicant:

Name *(Printed):*	Signature:	Date:

Applicant Name: _____ Date of Birth: _____

Previous Edition Obsolete

Section III - Medications *(must be completed by applicant and reviewed by verifying medical practitioner)*

Credential applicants who are required to complete a general medical exam are required to report all prescription medications prescribed, filled or refilled and/or taken within 30 days prior to the date that the applicant signs the CG-719K. In addition, all prescription medications, and all non-prescription (over-the-counter) medications including dietary supplements and vitamins, that were used for a period of 30 or more days within the last 90 days prior to the date that the applicant signs the CG-719K or approved equivalent form, must also be reported.

The information reported by the applicant must be verified by the verifying medical practitioner or other qualified medical practitioner to the satisfaction of the verifying medical practitioner to include the following two items.

1. Report all medications (prescription and non-prescription), dietary supplements, and vitamins.
2. Include dosages of every substance reported on this form, as well as the condition for which each substance is taken.

Additional sheets may be added by the applicant and/or qualified medical practitioner if needed to complete this section *(include applicant name and date of birth on each additional sheet).*

If none, check "NONE."

☐ NONE

Section IV - Certification of Medical Conditions *(must be completed by applicant and reviewed by verifying medical practitioner)*

Applicants must report their relevant medical conditions to the best of their knowledge, and the verifying medical practitioner must verify the medical conditions, using the table below. Check "yes" if the applicant has had a previous diagnosis or treatment of the condition by a healthcare provider, or if the applicant is currently under treatment or observation for the condition, or if the condition is present regardless of treatment.

If the verifying medical practitioner, or any other health care provider to the satisfaction of the verifying medical practitioner, discovers a condition not reported by the applicant, he/she must check "yes" in the appropriate block and explain in the remarks.

The verifying medical practitioner must address all reported relevant conditions in detail in this Section. This detailed explanation should include, at a minimum, identification of the condition, approximate date of diagnosis, any limitations, whether the condition is controlled, the prognosis and any additional information as appropriate, referring to the evaluation data listed in enclosure (3) of NVIC 4-08 for each condition.

Additional sheets may be added by the applicant and/or verifying medical practitioner if needed to complete this section of the form. *(include applicant name and DOB on each additional sheet).*

To the best of the applicant's knowledge, does the applicant have, or have ever suffered from, any of the following?

If YES, the applicant must **PROVIDE THE TEST RESULTS AND/OR RECORDS AS INDICATED**, referring to the evaluation data listed in enclosure (3) of NVIC 4-08 for each condition. Documentation of evaluation data specified in this table for all applicable medical conditions potentially requiring further review should be submitted with each application, unless otherwise specified by the NMC. Mariners, including first class pilots and those individuals "serving as" pilots (as well as Great Lakes pilots) who are required to submit annual physical examinations to the Coast Guard, may be issued a letter by the NMC specifying the extent of the evaluation data, if any, that should be submitted to the Coast Guard for any medical conditions that have been previously reported to, and evaluated by, the NMC.

The verifying medical practitioner shall make comments on all answers marked "yes" on the following page for which no evaluation data has been submitted. If known to the VMP, the VMP may comment that a condition has been previously reported on a prior CG-719K, but only for those CG-719Ks submitted after December 31, 2008, and only for those conditions which have not changed since the condition was previously reported on a prior CG-719K.

Applicant Name: _____ Date of Birth: _____

1.	**Identify the Condition**	3.	**Is Condition Controlled?**	5.	**Prognosis**
2.	**List Any Limitations**	4.	**Approximate Date of Diagnosis**	6.	**Additional Information**

	YES	NO			YES	NO	
1.	☐	☐	Ear surgery,	45.	☐	☐	Kidney stones
2.	☐	☐	Hearing loss, hearing aid	46.	☐	☐	Protein/sugar/blood in urine
3.	☐	☐	Impaired speech or stuttering	47.	☐	☐	Back surgery or injury
4.	☐	☐	Deformities of face	48.	☐	☐	Ruptured/herniated disc
5.	☐	☐	Open tracheostomy	49.	☐	☐	Fractures requiring surgery
6.	☐	☐	Poor vision	50.	☐	☐	Limitation of any major joint
7.	☐	☐	History of eye disease or injury	51.	☐	☐	Bone or joint surgery
8.	☐	☐	History of eye surgery	52.	☐	☐	Dislocated joint
9.	☐	☐	Abnormal color vision	53.	☐	☐	Recurrent neck or back pain
10.	☐	☐	Glaucoma	54.	☐	☐	Swollen or painful joint
11.	☐	☐	Asthma	55.	☐	☐	Arthritis or bursitis
12.	☐	☐	Emphysema or COPD	56.	☐	☐	Trick or locked knee
13.	☐	☐	Collapsed lung/pneumothorax	57.	☐	☐	Amputation or prosthesis
14.	☐	☐	Irregular heart beat	58.	☐	☐	Carpal tunnel
15.	☐	☐	Heart murmur or valve replacement	59.	☐	☐	Difficulty walking or climbing
16.	☐	☐	Chest pain or angina	60.	☐	☐	Sciatica or nerve pain
17.	☐	☐	Heart attack/ myocardial infarction	61.	☐	☐	Other bone/joint disorder
18.	☐	☐	Congestive heart failure	62.	☐	☐	Motion/sea sickness
19.	☐	☐	Heart surgery/stent/angioplasty	63.	☐	☐	Impaired balance, or balance disorder or difficulty
20.	☐	☐	Pacemaker or defibrillator	64.	☐	☐	Vertigo or dizziness
21.	☐	☐	Any other heart condition	65.	☐	☐	Numbness or paralysis
22.	☐	☐	High blood pressure/hypertension	66.	☐	☐	Head injury or skull fracture
23.	☐	☐	Aneurysm or blockages	67.	☐	☐	Seizures or epilepsy
24.	☐	☐	Pulmonary embolus or blood clots	68.	☐	☐	Recurrent headaches
25.	☐	☐	Gastrointestinal bleeding or ulcers	69.	☐	☐	Narcolepsy
26.	☐	☐	Crohn's disease or ulcerative colitis	70.	☐	☐	Sleep apnea
27.	☐	☐	Hepatitis or jaundice	71.	☐	☐	Restless leg
28.	☐	☐	Gallbladder problems or stones	72.	☐	☐	Fainting spells or loss of consciousness
29.	☐	☐	Intestinal surgery	73.	☐	☐	Stroke or TIA
30.	☐	☐	Any form of cancer	74.	☐	☐	Brain tumor
31.	☐	☐	Anemia	75.	☐	☐	Other brain or nerve disease
32.	☐	☐	Hemophilia or polycythemia	76.	☐	☐	ADD, ADHD, or bipolar
33.	☐	☐	Any other blood disorders	77.	☐	☐	Depression
34.	☐	☐	Thyroid disease	78.	☐	☐	History of suicide attempt
35.	☐	☐	Diabetes	79.	☐	☐	Schizophrenia
36.	☐	☐	HIV or AIDS	80.	☐	☐	Anxiety
37.	☐	☐	Lymphoma or leukemia	81.	☐	☐	Alcohol or substance abuse
38.	☐	☐	Tuberculosis	82.	☐	☐	Loss of memory or amnesia
39.	☐	☐	Neurofibromatosis	83.	☐	☐	Other psychiatric disease or counseling
40.	☐	☐	Skin tumors or cancer	84.	☐	☐	Sleepwalking
41.	☐	☐	Scleroderma	85.	☐	☐	Bedwetting since age 12
42.	☐	☐	Lupus	86.	☐	☐	Sex change
43.	☐	☐	Kidney transplant or dialysis	87.	☐	☐	Allergic reactions
44.	☐	☐	Kidney disease or cancer	88.	☐	☐	Any other disease, surgery or hospitalization

Condition #	Comment

Applicant Name: _____ Date of Birth: _____

Previous Edition Obsolete

Section V (a) – Visual Acuity

This section must be completed by the verifying medical practitioner, or any other healthcare provider to the satisfaction of the verifying medical practitioner see encl 5 of NVIC 4-08. Additional information must be reported in Section VII. If corrective lenses are required to meet the standard, both corrected and uncorrected vision must be tested.

Distant Uncorrected	Distant Corrected To	Field of Vision	
Right: 20 /	Right: 20 /	This applicant must have a **100**-degree horizontal field of vision.	☐ Normal
Left: 20 /	Left: 20 /		☐ Abnormal

Section V (b) – Color Vision

The following color sense testing methodologies are acceptable:

- ☐ AOC (1965) – (6 or fewer errors on plates 1-15)
- ☐ AOC-HRR (2nd Edition) – (No errors in test plates 7-11)
- ☐ Richmond (1983) – (6 or fewer errors)
- ☐ Ishihara pseudoisochromatic plates test, 14 plate (5 or less errors), 24 plate (6 or less errors) 38 plate (8 or less errors)
- ☐ Titmus Vision Tester / OPTEC 2000 – (No errors on six plates)
- ☐ Farnsworth Lantern (colored lights) Test per instruction booklet.
- ☐ Optec 900 (colored lights) Test per instruction booklet.
- ☐ An alternative test approved by the Coast Guard (indicate test) _____

The verifying medical practitioner must indicate test used and results (number of errors). Additional information must be reported in Section VII. Color sensing lenses (e.g. X-Chrome) are prohibited.

Color Vision: Normal Color Vision ☐ Abnormal Color Vision ☐

Number of Errors _____

Section VI – Hearing

Normal	Abnormal Hearing	Hearing Aid Required
☐	☐	☐

If abnormal hearing or hearing aid required, perform audiogram or functional speech discrimination test.

An applicant with normal hearing does not need to complete either the audiometer test or the functional speech discrimination test. The verifying medical practitioner, in consultation with any other healthcare provider he/she deems appropriate, determines whether the audiometer and/or functional speech discrimination tests are necessary. If hearing is abnormal or a hearing aid is required, refer to enclosure (5) of NVIC 4-08 for guidance.

If audiometric testing is required, the audiometer test should include testing at the following thresholds, 500Hz, 1,000 Hz, 2,000 Hz and 3000 Hz. The frequency responses for each ear are averaged to determine the measure of an applicants hearing ability. The Applicant should demonstrate an unaided threshold of 20dB in each ear.

Additional information must be reported in Section VII.

Audiometer Threshold Value		500Hz	1,000Hz	2,000Hz	3,000Hz			
	Right Ear (Unaided)							
	Left Ear (Unaided)							
	Right Ear (Aided)							
	Left Ear (Aided)							

Functional Speech Discrimination Test @ 55dB				
	Right Ear (Unaided):	%	Right Ear (Aided)	%
	Left Ear (Unaided):	%	Left Ear (Aided)	%

Applicant Name: _____ Date of Birth: _____

Section VII (a) - Physical Information

This section to be completed by the verifying medical practitioner, or other medical staff to the satisfaction of the verifying medical practitioner. Additional information must be reported in Section VII.

Height *(inches only):*	Weight *(lbs):*	Body Mass Index *(BMI):*	Gender:

Pulse Resting:	Initial Blood Pressure:	Repeat Blood Pressure *(if needed):*

Section VII (b)– Physical Exam *(must be completed by verifying medical practitioner)*

#	Normal	Abnormal	System/Organ	#	Normal	Abnormal	System/Organ
1.			Head, Face, Neck, Scalp	**10.**			Skin
2.			Eyes / Pupils / EOM	**11.**			Lymphatic
3.			Mouth And Throat	**12.**			Neurologic
4.			Ears / Drums	**13.**			Vascular System
5.			Lungs And Chest	**14.**			Genital-Urinary System
6.			Heart	**15.**			Hernia
7.			Abdomen	**16.**			Missing extremities / Digits
8.			Upper / Lower Extremities	**17.**			General / Systemic
9.			Spine / Musculoskeletal				

Please make numbered comments on abnormal systems/organs:

Section VIII - Demonstration of Physical Ability *(to be completed by the verifying medical practitioner)*

- If the examining medical practitioner doubts the applicant's ability to meet the guidelines contained within this table, and for all applicants with a Body Mass Index (BMI) of 40.0 or higher, the practitioner shall require that the applicant demonstrate the ability to meet the guidelines. This does not mean, for example, that the applicant must actually don an exposure suit, pull an uncharged 1.5 inch diameter 50' fire hose with nozzle to full extension, or lift a charged 1.5 inch diameter fire hose to fire fighting position. Rather, the medical practitioner may utilize alternative measures to satisfy himself or herself that the applicant possesses the ability to meet the guidelines in the third column. A description of the methods utilized by the medical practitioner should be reported in Section IX.

- All practical demonstrations, if required, should be performed by the applicant without assistance. Any prosthesis normally worn by the applicant, and other aid devices, may be used by the applicant in all practical demonstrations except when the use of such items would prevent the proper wearing of mandated personal protection equipment (PPE).

Applicant Name: _____ Date of Birth: _____

Previous Edition Obsolete

- If the verifying medical practitioner is unable to conduct the practical demonstration, the applicant should be referred to a competent evaluator of physical ability. The Coast Guard recognizes that all medical practitioners may not have the equipment necessary to test all of the tasks as listed. Equivalent alternate testing methodologies may be used. For further information, see enclosure (2) of NVIC 4-08.
- If the applicant is unable to perform any of the following functions, the examining practitioner should provide information on the degree or the severity of the applicant's inability to meet the standards. The results of any practical demonstration or attendant physical evaluation should be recorded in the Section IX.

List of tasks considered necessary for performing ordinary and emergency response shipboard functions:

Shipboard Tasks, function, event or condition:	*Related Physical Ability:*	*The examiner should be satisfied that the applicant:*
Routine Movement on slippery, uneven, and unstable surfaces.	Maintain Balance (equilibrium).	Has no disturbance in sense of balance.
Routine access between levels.	Climb up and down vertical ladders and stairways.	Is able, without assistance, to climb up and down vertical ladders and stairways.
Routine movement between spaces and compartments.	Step over high door sills and coamings, and move through restricted accesses.	Is able without assistance, to step over a door sill or coaming of 24 inches (61 centimeters) in height. Able to move through a restricted opening of 24 inches.
Open and close watertight doors, hand cranking systems, open/close valve.	Manipulate mechanical devices using manual and digital dexterity, and strength.	Is able, without assistance, to open and close watertight doors that may weigh up to 55 pounds (25 kilograms). Should be able to move hands/arms to open and close valve wheels in vertical and horizontal directions; rotate wrists to turn handles. Reach above shoulder height.
Handle ship's stores.	Lift, pull, push, and carry a load.	Is able, without assistance, to lift at least a 40 pound (18.1 kilogram) load off the ground, and to carry, push or pull the same load.
General vessel maintenance.	Crouch (lowering height by bending knees); kneel (placing knees on ground); and stoop (lowering height by bending at the waist). Use hand tools such as spanners, valve wrenches, hammers, screwdrivers, pliers.	Is able, without assistance, to grasp, lift and manipulate various common shipboard tools.
Emergency response procedures, including escape from smoke-filled spaces.	Crawl (the ability to move the body with hands and knees); feel (the ability to handle or touch to examine or determine differences in texture and temperature).	Is able, without assistance, to crouch, keel and crawl, and to distinguish differences in texture and temperature by feel.
Stand a routine watch.	Stand a routine watch.	Is able, without assistance, to intermittently stand on feet for up to four hours with minimal rest periods.
React to visual alarms and instructions, emergency response procedures.	Distinguish an object or shape at a certain distance.	Fulfills the eyesight standards for the merchant mariner credential(s) applied for. *See footnote 1 of this table & enclosure (5) of NVIC 4-08.*
React to audible alarms and instructions, emergency response procedures.	Hear a specified decibel (dB) sound at a specified frequency.	Fulfills the hearing capacity standards for the merchant mariner credential(s) applied for.
Make verbal reports or call attention to suspicious or emergency conditions.	Describe immediate surroundings and activities, and pronounce words clearly.	Is capable of normal conversation.
Participate in firefighting activities.	Be able to carry and handle fire hoses and fire extinguishers.	Is able, without assistance, to pull an uncharged 1.5 inch diameter, 50' fire hose with nozzle to full extension, and to lift a charged 1.5 inch diameter fire hose to fire fighting position.
Abandon ship.	Use survival equipment.	Has the agility, strength and range of motion to put on a personal flotation device and exposure suit without assistance from another individual.

Applicant Name: _____ Date of Birth: _____

Previous Edition Obsolete

Section IX – Verifying Medical Practitioner Recommendation

☐ Recommended Competent	☐ Not Recommended Competent *(explain in comments)*	☐ Needing Further Review *(explain in comments)*
Comments on Recommendation:		

Verifying Medical Practitioner:

This signature attests, subject to criminal prosecution under 18 USC § 1001, that all information reported by the verifying medical practitioner is true and correct to the best of his/her knowledge and that the verifying medical practitioner has not knowingly omitted or falsified any material information relevant to this form.

Name *(Printed)*:	Signature: Date:
License Number: Office Telephone:	Office Address, City, State, Zip Code:

U. S. Dept. of Homeland Security, USCG, CG 719K, Rev. 01-09

Applicant Name:_____ Date of Birth: _____

Previous Edition Obsolete

PUGET SOUND PILOTS

1995 Board-Approved Expenses

Seattle Station

	EXPENSE ITEM	1995 BOARD APPROVED
1	Attorney fees	$28,634.00
2	Consulting fees	$8,225.00
3	CPA fees	$19,000.00
4	Data processing	$6,000.00
5	Depreciation	$33,473.00
6	Drug testing	$4,100.00
7	Dues	$6,450.00
8	Employee benefits	$85,152.00
9	Employee salaries	$384,328.00
10	Insurance	$2,731.00
11	Interest	$5,778.00
12	Leases, equip.	$13,746.00
13	Lobbyist	$.00
14	Maintenance & repairs	$11,343.00
14X	Note payable - B&O	$.00
15	Office supplies	$17,044.00
16	Pensions	$691,840.00
17	Printing & pub.	$10,445.00
18	Rent	$57,003.00
18X	Taxes, penalty (One-time)	$.00
19	Taxes, other	$5,654.00
20	Taxes, payroll	$31,345.00
21	Taxes, revenue	$267,014.00
22	Telephone & comm.	$24,456.00
23	Training	$131,434.00
23X	Transportation	$.00
24	Travel & entertainment	$30,331.00
	Total	$1,875,526.00

PUGET SOUND PILOTS

1995 Board-Approved Expenses

Port Angeles Station

	EXPENSE ITEM	1995 BOARD APPROVED
25	Depreciation	$19,031.00
26	Food	$53,663.00
26X	Interest	$.00
27	Maintenance & repair	$31,036.00
28	Rent, tideland lease	$2,265.00
29	Reposition pilots	$102,740.00
30	Supplies	$20,325.00
31	Taxes, property	$7,758.00
32	Telephone & communications	$16,811.00
33	Utilities	$18,514.00
	Total	$272,143.00

PUGET SOUND PILOTS

1995 Board-Approved Expenses

Pilot Boats

	EXPENSE ITEM	1995 BOARD APPROVED
34	Depreciation	$85,892.00
34x	Depreciation (Recovery - 1991)	$.00
35	Employee benefits	$66,204.00
36	Employee salaries	$405,157.00
37	Insurance	$51,813.00
38	Interest	$33,049.00
39	Note payable - boats	$161,611.00
40	Operation of JUAN DE FUCA	$66,500.00
41	Operation of PUGET SOUND	$66,500.00
42	Taxes, payroll	$34,220.00
43	Taxes, property	$568.00
43X	Taxes, property (Recovery - 1991)	$.00
	Total	$971,514.00

REVIEW AND ANALYSIS OF HARBOR PILOT NET INCOMES

Prepared by:

Brent Dibner
DIBNER MARITIME ASSOCIATES LLC
CHESTNUT HILL, MA 02467

Prepared exclusively for:

THE WASHINGTON STATE BOARD OF PILOTAGE COMMISSIONERS

At the specific request of:

PUGET SOUND PILOTS
Seattle, WA

October 12, 2011

I. PURPOSE AND APPROACH

A. Purpose

The purpose of this report is to present information and findings that indicate state pilot compensation at various major ports located in the Pacific, US Gulf, and South Atlantic. The calculations and comparisons in this report present and/or project net income for periods that are as up-to-date as possible, while remaining representative and most meaningful. This analysis was specifically prepared for the Washington State Board of Pilot Commissioners at the specific request of the Puget Sound Pilots.

B. Key Metric

The key metric of my analysis is net income per pilot. This net income is similar to salary paid to an employee, in which the employer pays certain costs including: 1) employer-paid payroll taxes, 2) employer-paid premiums for health insurance, disability insurance, dental insurance, life insurance, and employer contributions to retirement or pension programs.

State pilots are most typically not employees of the pilot organization they serve. They are independent contractors to a pilot organization and are also partner/shareholders in a pilot organization. In some jurisdictions, such as Louisiana, employee benefits such as health, dental, disability and life insurance, as well as pension retirement contributions are paid by the organization for these independent pilots. In other jurisdictions, some or no benefits and/or employer-paid costs are payable by the pilot organization and the pilot bear these costs themselves, typically as self-employed individuals. The San Francisco Bar, Los Angeles Pilots (who are employees of the City of Los Angeles), Brazos Pilots, Galveston-Texas City, Pascagoula Pilots, and Mobile Pilots are personally responsible for at least some of their pension, medical, and/or transportation costs. The deductibility of certain portions of these expenses must be considered to fairly compare and adjust net income. This analysis assumes that all state pilots in associations payments of the employer portions of their Social Security and Medicare payments are equal.

C. Sources of Information

I reviewed a wide variety of information pertaining to pilot organizations which provides insights into pilot compensation, pilot organization revenues and costs, as well as other information pertaining to the numbers of pilots in an organization. My objective was to examine all significant pilot organizations between Puget Sound, WA and the Mexican border and the Mexican border to Charleston, SC.

Pilots at Pacific, Florida, and Gulf Coast ports perform docking and un-docking services and are responsible for the control of assist tugboats. From Jacksonville, FL north, docking and un-docking pilotage is frequently provided by individual tugboat company-affiliated pilots, who take over from state pilots for this stage of the vessel's arrival or departure. Docking pilots charge separate fees for their services. State pilots are capable of directing assist tugboats and frequently dock and undock ships when tugs are not required, and are almost always present aboard vessels during the docking an undocking operations when tugs are used.

The pilotage organizations in the North Atlantic (Virginia, Maryland, the Delaware River, and New York) were not addressed for several reasons: a) the finances of these organizations are far more opaque, with little, if any financial and regulatory information; b) the geographical nature of these operations are also more complex, typically involving navigation in bays, sounds, rivers, and to and from various anchorages throughout their services areas; c) they do not typically direct ship-docking services even though they typically remain on-board the vessel that they have/will pilot; d) the industry general interest and public (City or state) regulatory information and involvement in pilot rate-setting is far less common than in continental Pacific coast states, certain Texas ports, Louisiana, and Florida.

This report does not address the several Alaskan pilot associations for other reasons: 1) pilot regulation is virtually opaque, with little, if any insight into pilot organization financial and operational information; 2) activity is seasonal, which greatly alters their economics because all activity occurs during a shorter time period and thus more pilots are required for a shorter annual period; 3) it is my understanding that while some organizations have tariffs (which are difficult to obtain), the actual rates are negotiated with major customers (such as cruise lines, refiners, and pipelines) and are confidential and discounted from the tariffs and 4) in many instances, pilots must be widely distributed along Alaska's vast coastline and accompany vessels during long passages within US territorial waters. Insights from these activities are of limited relevance to the type of pilotage provided in the ports and areas that this study addresses.

D. Regulatory Rate Disclosure

In some instances, available documents specifically quantify pilot compensation. These documents were usually prepared in conjunction with pilot rate-setting processes. These documents were prepared by the pilot organizations themselves, by their certified public accountants, or by the State boards or commissions that are responsible for regulating state pilot activities. Puget Sound, Columbia River (bar and river), Hawaii, Florida (St. Johns River/Jacksonville, Biscayne, Tampa), Louisiana (all four pilot associations) and in some cases Texas rate cases (Galveston-Texas City) have been accompanied by audited financial statements and projections. Brazos/Freeport, TX financials are filed annually.

E. Financial Statements of Pilot Organizations

For other pilot organizations, I relied on documents that set forth the financial statements of pilot organizations. These are usually audited by independent accountants and, in at least one instance, publicly filed with the Internal Revenue Service due to tax exempt status. The income statements contain revenue and cost information that reveals net income. When divided by the number of full time pilots, this information provides insight into net income per pilot.

As of September 2011, DMA has reviewed the most recently available audited financial statements, income statements, or summaries of expenses for the following pilot associations: Puget Sound, WA; Columbia River Pilots; San Francisco, CA; Columbia Bar Pilots, OR; Hawaii Pilots Association, HI; Aransas Corpus Christi, TX; Brazos/Freeport, TX; Galtex Pilots, TX; Lake Charles, LA; New Orleans and Baton Rouge, LA; Associated Branch Pilots, LA; Crescent River Port Pilots, LA; Tampa, FL; Biscayne Bay, FL (Miami); St. Johns Bar, FL (Jacksonville); DMA has also reviewed the most recent publicly-available audited financial statements for the Houston Pilots, TX and Port Everglades, FL, but these are relatively dated and thus used as a basis for estimating forward to 2010 and to understand cost and revenue levels in those years. DMA also reviewed the City of Los Angeles memorandum of understanding (MOU) pertaining to the labor agreement between the International Longshore Workers Union (ILWU) representing the Los Angeles Port Pilots and the City, which sets forth the basis for employment and compensation.

G. Pilot Compensation Reported in Trade or General Press

Some pilot applications for rate adjustments and/or approvals have been reported in the press, typically in local newspapers, web-mounted news letters, or trade publications. The articles often contain insights into per pilot compensation, and the percentage increases in tariff rates, customer costs and pilot net income. In some instances, the amount of the increase in pilot organization revenue is revealed, along with the percentage increase. This permits calculation of pre- and post-tariff adjustment revenue. While the detail, timeliness, and accuracy of articles vary, the information can be reviewed and considered with some reliability when matters of compensation do not have any public visibility.

H. Pension and Retirement Costs

Retirement programs play an important role in analyzing comparative pilot net income. The great majority of pilot associations have retirement programs covering their members. Most of these plans are unfunded plans paying a benefit from current operating income. Some of the plans are funded – either funded as defined benefit plans or group defined contribution plans with the contributions made by the association. The net income figures derived in this report are exclusive of defined benefit plans. If a group does not have a pension plan, I have deducted the maximum allowable amount under the IRS-approved Self Employment Pension (SEP) plan that the pilot could fund their own plan and have reduced the cost of SEP contribution by the marginal Federal tax rate (35%) to reflect the partially-offsetting tax deductibility of the contribution. Because

Puget Sound Pilots has a program, no deduction has been made from their net income for this item.

I have endeavored to treat pension costs as accurately as possible, given the availability of information and the complexities and uncertainties that accompany pension programs. Where necessary, I have modified my analyses or estimates of pilot association costs and/or pilot net income if funding of a self-employed pension is necessary.

I. Medical Insurance Costs

In the event that a pilot association does not provide medical insurance, I have deducted the amount of a typical premium family medical insurance program, which is currently set as $ 16,113 in the East Gulf and $ 20,000 elsewhere. This cost is reduced by the partially-offsetting tax deductibility of the contribution by the self-employed pilot, in a manner similar to the SEP pension described immediately above.

J. Self-Employment Taxes

As a result of this survey of 23 organizations and approximately 734 pilots, it appears that all pilots except for the Los Angeles Port Pilots are self-employed. Consequently, all pilots net income is prior to the payment by the self /contractor pilots of Social Security and Medicare insurance. A self-employed pilot will pay (in 2011) on the first $ 106,800 of earned income at a rate of 6.2% and 1.45% respectively. The Los Angeles Port Pilots must contribute 6% of the first $ 245,000 of earnings to the City of Los Angeles pension plan. The differential in costs between the Los Angeles Pilots and all other pilots is treated as a differential that reduced Los Angeles Pilot compensation as shown in Chapter II, Exhibit II-3.

K. Methodology to Estimate Net Income When No Financial or other Pilot Compensation Information is Available

In some cases, I have estimated pilot organization revenue based on ship traffic and the prevailing tariff structures and then deducted estimated costs in order to estimate net income. Of the 23 organizations, this was necessary in five ports..

The financial statements and/or per pilot net income of the the Sabine River and Bar, Pascagoula, Mobile, Savannah, and Charleston have – to my knowledge – never been disclosed in any public, industry, or regulatory setting. In these cases, I used ship activity information and the prevailing tariffs to estimated revenue. I developed cost-estimates based upon the characteristics of their pilotage route, boats, stations, size, office locations, dispatcher and other employee information, to estimate costs. These estimated costs were also checked against known costs and operational metrics of pilot associations with similar operating characteristics for which data is available, adjusting for the size and pace of activity as well as other factors.

Pilot net income is derived from the following:

- Total pilot organization revenues, less…
- Operating, capital, and administrative expenses, divided by…
- Number of pilots, adjusted for…
- Any benefits or employer-paid taxes or benefits that are not paid by the pilot organization and must/may be paid by the pilot as an independent contractor

Pilot Association Revenue

Pilotage revenue is based upon applying the pilot organization's tariff to the appropriate vessel traffic. Vessel traffic in most pilotage areas includes foreign trading ship activity and domestic coastal movements. In both international and domestic coastwise trade, traffic may include cargo ships, service vessels, cruise and passenger ships and ferries, some military ship traffic, and offshore energy service and other ship traffic.

DMA analysis makes use of various sources of vessel traffic data, each with varying types of information (numbers of ship calls, gross tonnage, deadweight, draft), covering varying types of vessels (cargo carrying only, international trading vessels, domestic trading vessels, some excluding certain types of vessels). US Customs, the US Army Corps of Engineers and US Maritime Administration data (based upon private sector capture of vessel movements from agents and position indicating technology).

Pilot organization revenue is generated by the number of ship calls by type of ship multiplied by the pilot organization revenue that is estimated for that type of ship, based on type, size, and pilotage route. For each vessel type (e.g. crude oil tankers, products/chemical tankers, dry bulk carriers, container ships, multipurpose/general cargo ships, passenger cruise ships, tug and barges, offshore support vessels, etc.). Average measurements (such as length, beam, depth, draft, gross tonnage) can be applied to the particulars of the pilot organization tariff to derive pilot organization revenue.

Tariff rates and fees typically address such parameters as the distance traveled and/or zones traveled, time of travel, charges per foot of draft, gross tonnage, units of size, whether the ship is powered or un-powered and many other factors. Charges may be levied to cover pilot transportation costs, delays, detention, cancellation of jobs, movements at night, shifting within the port, movements without power, turning in basins, anchoring, entering or leaving dry docks, etc. Surcharges such as those for communications or payments for capital expenditures are also considered. In some cases, particularly in ports where typical invoices for certain vessels were supplied, actual revenues can be compared with the calculations to confirm the estimates and methodologies.

Pilot Association Costs

Pilot organizations incur costs for their administration, operations and the capital assets related to their services (whether the assets are owned, leased, hired, or passed through to customers). Costs typically include: pilot boat operations (crews, fuel, supplies, maintenance, repairs, insurances); land transportation operations (cars, hotels, vans, airplane trips to outports); pilot station or base operations (maintenance, repair, hotel and catering services, insurances); general and administrative expenses (dispatch, communications, billing, safety, purchasing, accounting); employee benefits and payroll taxes; full pilot, deputy and/or pilot-in-training expenses including the use of simulators at distant facilities; regulatory and legal expenses; and capital costs which may include depreciation, interest, leases, or rent for boats, buildings, stations, offices, communications and other assets. While pilot organizations incur varying costs for these items due to the nature of their operations, the costs can be estimated based on the actual unit costs for representative pilot groups and types of expenses.

The unit cost calculations used for estimating costs include: – costs as a percent of revenues; unit costs as a percentage of non-pilot costs; costs per ship, costs per pilot job or "turn"; as well as costs per pilot; per boat; or per employee. The comparison of actual pilot organization financial statements, where available, confirms that cost composition calculations fall within meaningful ranges. Consequently, the costs can be reasonably estimated based on knowledge of the size and type of operation. Analysis of the financial statements of pilot organizations has suggested that pilot boat costs per boat-year – with consideration of the size of the boats, pilot boat fuel gallons per ship calling at the port, pilot remote station costs (if any) per pilot and all other expenses (which can include pilot pension costs, pilot medical costs, general and administrative and other costs) per pilot are the key cost elements that can be compared and contrasted most consistently.

Fortunately, most pilot organizations costs fall into a fairly meaningful range when measured in cost per pilot. This provides a credible foundation for estimating the likely cost for transportation (principally pilot boat and automobile/van activity), operations (radios, computers, software, communications systems), stations (remote locations and/or bunking space and/or hotel/motels), general and administrative expenses (which includes administration, dispatch, professional services, dues, education, supplies, and all other office expenses).

M. Comparative Analysis In Context of the Recession of 2008

For certain pilot associations where estimation of net revenue requires the development of revenues and/or costs, the latest traffic data has been referred to and used

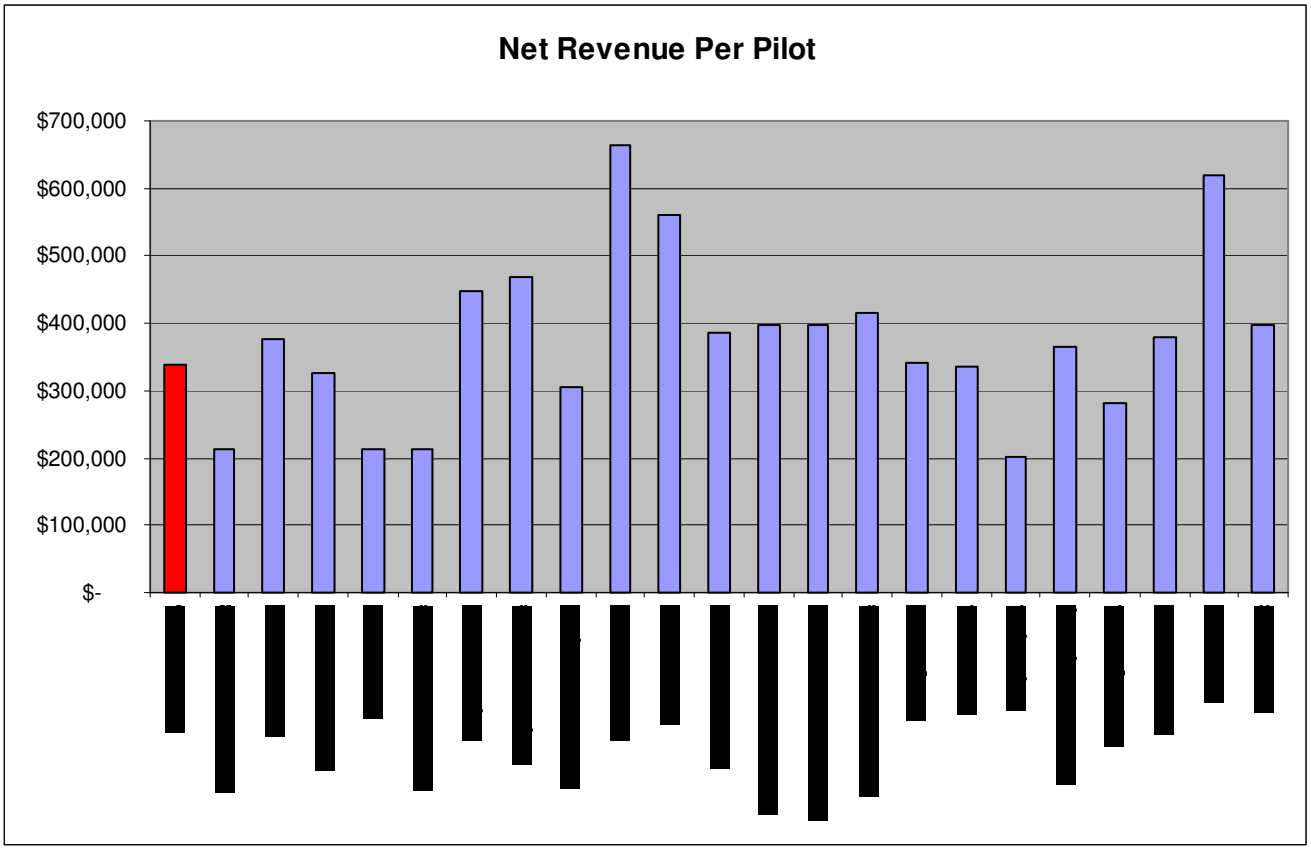
as set forth above. In all cases, the analysis seeks to use the best data available, with the awareness that the recovery of individual ports has varied relative to traffic levels prior to the onset of the recession that began in 2008 and the lowest recent levels of trade and ship activity that typically occurred in 2009 or 2010.

II. SUMMARY OF FINDINGS

Summary of Pilot Net Income Analysis

Figure II-1 presents a graphical summary of pilot compensation for various ports adjusted as noted to the most recent data available.. Exhibit II-1 summarizes the data in tabular form. Exhibit II-2 provides analysis of pilot "gross net" earned and net income for certain ports in which pilots are paid as independent contractors and of certain or all benefits and payroll-related taxes that are paid by the pilot. Figure II-2 presents a graphical progression of pilot compensation from the lowest paid organizations to the highest paid. Commentary on each follows below.

Figure II-1



The average for all 730 pilots is $ 406,717 on a weighted basis (number of pilots). The average of all organizations on an un-weighted basis is $ 376,123 (23 organizations). If the highest paid (Savannah, GA) and lowest paid (Tampa, FL) pilots are excluded, the remaining 686 pilots are paid an average $ 407,020.

As Figure II-2 shows below, 150 pilots earn less than Puget Sound Pilots and 520 pilots are paid more. When this progression is analyzed, 66 % of the 730 pilots earn more than $ 380,000 per year (448 of the 677 non-Puget Sound pilots).

The Puget Sound Pilots have the eighth lowest earnings (out of the 23 groups surveyed), and the seven lower-paid organizations have peculiar characteristics that contribute to their relatively low levels of net income. If one accepts that these characteristics and situations are relevant, Puget Sound Pilots is the lowest-paid pilot association that does not have such peculiarities and situations.

- The Tampa Bay Pilots ($ 202,000 earnings) have experienced a sharp loss of cargo tonnage, from 53.1mm short tons in 2003 to 37.8mm in 2009, the latest year for which data is available from the US Army Corps of Engineers. This situation has been exacerbated by an increase in the number of pilots
- The Hawaii Pilots ($ 213,000 earnings) operate with ten pilots over a 170-mile wide area involving four islands and significant travel time requirements, as well as the need to frequently remain on ships or islands due to these travel requirements. The Hawaiian pilotage faces resistance from the cruise industry.
- The Columbia River Pilots ($ 215,000 earnings) and Columbia River Bar Pilots ($ 215,000) together provide a service that entails the highest operating costs of all 23 associations (helicopter and large outside pilot boats) to navigate the Columbia Bar, a relatively long service run on the Columbia River to the major ports in the Portland area, with limited drafts.
- Port Everglades Pilots ($ 283,000 earnings) has suffered an 8 percent loss of international gross tons of shipping calling between 2007 and 2009, as well as the loss of hundreds of short-trip gambling casino passenger ship/ferries, resulting in a decline in the number of ship calls from 4822 in 2007 to 3,803 in 2010. This caused a severe drop in pilot utilization. Port Everglades also faces concerted pressure from the cruise industry.
- The Galveston-Texas Pilots ($ 307,000) suffered the ravages of Hurricane Irene in 2008, combined with a weakening of shipping activity in Texas City (which accounts for more than 85% of cargo tonnage serviced by the association). Like Port Everglades, the cruise industry has resisted pilotage and has targeted Galveston as a small port that is very sensitive to the economic impact of its cruise terminal.
- The Los Angeles Port Pilots ($ 327,000) are municipal employees of the City of Los Angeles and are unionized. Their earnings risks are less than associated state pilots, they have one of the most generous pension plans of any organization, and

the substantial portion of the their net income is salaried and unaffected by ship demand.

- The Mobile Bay Pilots ($ 336,000) are heavily influenced by the state-owned port area that is dominated by an export coal terminal. Alabama ranks 42nd in 2010 per capita income, while neighboring Mississippi (Pascagoula $ 340,000) ranks 50th in 2010 per capita income. The low level of income in the state is a factor in compensation. By comparison, Washington State ranks 13th.

Figure II-1

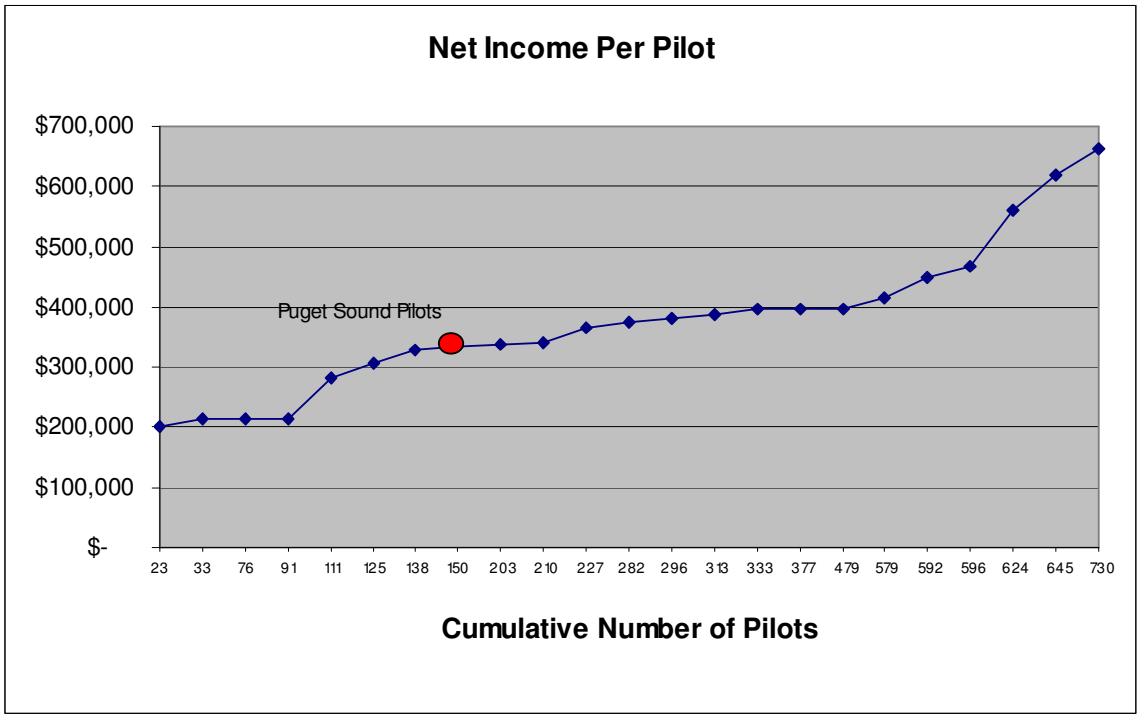


Exhibit II-2 presents a tabulation of per pilot net income for the 730 pilots and the 23 organizations. The methodology and dating of the figures as set forth on the right hand column

Exhibit II-2

PILOT NET INCOME

	Net Revenue	Tariff	Traffic	Pilots	Net Revenue	Net Income Source, Tarriff and Cost Bases (as applicable)
Puget Sound, WA	338,071	n/a	n/a	52.5	17,748,741	From Puget Sound Pilots, Interim estimate as of Sept. 2011
Columbia River Pilots, OR	214,447	n/a	n/a	43.0	9,221,221	2011 target from Oregon Order 10-01, May 19, 2010
San Francisco, CA	*375,714*	n/a	n/a	55.0	20,664,270	From San Francisco Pilots, 2010 average per pilot
Los Angeles Pilots, CA	*326,856*	n/a	n/a	13.0	4,249,123	From City of Los Angeles, for 2010
Hawaii Pilots, HI	212,894	n/a	n/a	10.0	2,128,944	net income average of 2007 and 2008
Columbia River Bar Pilots	214,447	n/a	n/a	15.0	3,216,705	2011 target from Oregon Order 10-02, May 19,2010
Corpus Christi, TX	448,405	2011	2011	13.0	5,829,268	2011 tariff and 2009 traffic
Freeport, TX - Brazos	*468,009*	2009	2009	4.0	1,872,036	2010 traffic (latest), extended from 2009 financial statements
Galveston-Texas City, TX	*306,621*	2011	2009	14.0	4,292,690	DMA extension based upon FY 2009 financials to 2009 traffic
Houston Pilots, TX	663,118	2011	2009	85.0	56,364,992	DMA extend from 2003 Financials to 2011 traffic (projectd, rates and costs)
Sabine River, TX	560,450	2011	2010	28.0	15,692,594	DMA estimate 2009 traffic and 2011 rates
Lake Charles Pilots, LA	385,738	n/a	n/a	17.0	6,557,546	2011, based on CPI adjustment Louisiana mechanism
Associated Branch Pilots, LA	397,826	n/a	n/a	44.0	17,504,337	2011, based on CPI adjustment Louisiana mechanism
Crescent River Port Pilots, LA	397,826	n/a	n/a	102.0	40,578,237	2011, based on CPI adjustment Louisiana mechanism
New Orleans-Baton Rouge	415,356	n/a	n/a	100.0	41,535,600	DMA review of 2010 financials for 2011
Pascagoula, MS	*339,866*	2011	2009	7.0	2,379,062	DMA estimate, 2009 traffic, 2011 tariff
Mobile Bar, AL	*335,744*	2011	2009	12.0	4,028,924	DMA estimate, 2009 traffic, 2011 tariff
Tampa Bay, FL	202,266	2011	2009	23.0	4,652,123	DMA 2010 traffic, prevailing tarriff, extended from 2004 Financials
Miami, FL - Biscayne Bay	364,900	2011	2010	17.0	6,203,302	DMA 2010 traffic, prevailing tarriff, extended from 2007 Financials and 2008/11 projections
Port Everglades, FL	282,703	2011	2010	20.0	5,654,060	DMA 2010 traffic, prevailing tarriff, extended from 2004 Financials
St John Bar Pilots	381,034	2011	2009	14.0	5,334,480	DMA extension to 2009 traffic and prevailing tariff from FY 2008 Financials
Savannah, GA	620,729	2011	2009	21.0	13,035,306	DMA estimate 2011 tariff and 2009 traffic
Charleston, SC	397,818	2011	2009	20.0	7,956,360	DMA estimate 2011 tariff and 2009 traffic
Total and/or Average of All	**406,717**	**weighted**		**730**	**296,699,923**	
	376,123	unweighted				
n/a = not applicable		Less highest and lowest		686	279,012,494	
				less hi/low	**407,020**	

Note: italicized Net Revenue denotes self-employment deductions and tax credits made
Source: Dibner Maritime Associates analysis and review of documents

As set forth in sections within Chapter I (including I.J), DMA has aligned those pilots who must fund their pensions and/or health insurance or bear certain other special costs. These costs are partially offset by the income tax deductibility of these expenses, and these tax credit are also incorporated in the table that follows below.

Exhibit II-3

Basis Pilot Gross Net Earned to Net Income Adjustments for Self-Employed Contractor Costs

	Mobile	Pascagoula	Galtex	Brazos	Los Angeles	San Francisco	Comment
Gross Net (Pre Self-Employment Costs)	**$ 367,594**	**$ 387,829**	**$ 310,521**	**$ 523,883**	**$ 331,100**	**$ 395,714**	
Less: Out-of-pocket costs paid by pilot							
Self-employment pension funding	(49,000)	(49,000)		(49,000)			
City of Los Angeles, Contribution to 401-k					(6,530)		
Health Insurance		(16,113)		(16,113)		(20,000)	Per quotes and estimates
Self-paid harbor transport expenses			(6,000)				
Offset: Tax savings on costs paid by pilot							
Tax Credit for Self Employment Pension (SEP)	17,150	17,150	-	17,150		-	
City of Los Angeles, Contribution to 401-k					2,285		
Tax Credit for Health Insurance	-	-	-	-		-	
Tax Credit for self-paid harbor transport expense			2,100				
Estimated Net Pilot Revenue	**$ 335,744**	**$ 339,866**	**$ 306,621**	**$ 475,920**	**$ 326,856**	**$ 375,714**	

Source: Dibner Maritime Associates LLC

		Marginal Federal Tax Rate		0.35
Self-Employed employer Social Security		106800	0.062	6,622
Self-Employed employer Medicare		106800	0.0145	1,549
				8,170
	Los Angeles	245000	0.06	14,700
	LA Differential			6,530

III. PILOT COMPENSATION ON THE PACIFIC COAST

Compensation of the Puget Sound Pilots

Puget Sound Pilots serve all waters of Puget Sound east of Port Angeles and south of the Canadian border, including the Ports of Tacoma, Anacortes, Seattle, Bellingham, Manchester, Everett, Olympia, Port Angeles and the northern refineries (BP, Tesoro, Shell, and Conoco Phillips). Vessels transiting these waters include the full range of ship types. The pilots maintain headquarters in Seattle and a pilot station in Port Angeles. Activity includes movements to and from the sea from points within Puget Sound and also movements to and from the Canadian Pacific.

The Puget Sound Pilots has provided me with their interim financial projections for calendar year 2011, based on activity through September. Their projection of net income per pilot is based on net revenue of $ 17,748,741 divided by 52.6 pilots, which is $ 338,071.

Compensation of the Columbia River Pilots

The Columbia River Pilots serve all shipping on the Columbia River and its tributaries. They are distinct from the Columbia Bar Pilots which guides ships across the river bar. The Columbia River Pilots' net income for 2010 was $ 8,855,702 which is

divided by 43.02 pilots for an annual net income per pilot of $ 205,846. The target income for the Pilots for 2011 is $ 214,447, which has been used.

Compensation of the San Francisco Bar Pilots

The San Francisco Bar Pilots Association serves the entire San Francisco Bay system, including and extending to the inland ports of Stockton and Sacramento. Ship traffic includes container ships, tankers, bulk cargo ships, container vessels, and military vessels.

On the third of March, 2011 Mr. John Cindrey, Business Director of the San Francisco Bar Pilots filed a declaration before the Board of Pilot Commissioners for the Bays of San Francisco, San Pablo and Suisun. In Exhibit A, Mr. Cindrey sets forth the average net income of the San Francisco Bar Pilots for 2010 as: $ 395,714. I have reviewed his analysis and agree.

Compensation of the Los Angeles Port Pilots

The Los Angeles Pilots are unlike all other pilots addressed in this report because they are civil service employees of Los Angeles County. At present there are 13 pilots and two chief pilots (managing the operation). The 13 pilots are strictly engaged in pilotage and are members of the International Longshore Workers Union, while two chief pilots are managing the operation and are non-union personnel. The terms and conditions of pilotage including the various terms of compensation are memorialized in Memorandums of Understanding in the ILWU contract, by the City of Los Angeles. The terms of the contract and discussions with a reliable source within the City who is familiar with the port pilot operation and typical earnings leads to the following composition of net income for 2010:

Exhibit III-1

LOS ANGELES PORT PILOTS

	Amount	Cumulative
Salary	$ 217,500	
Call backs	32,200	$ 249,700
Efficiency bonus	36,100	285,800
Overtime	32,100	317,900
Comp. Time Off	13,200	331,100
Total		331,100

Based Upon: City of Los Angeles Labor MOU, 2011

The total net income of $ 331,000 was reduced by the after tax cost differential between the Los Angeles Port Pilots requirement to contribute 6% of their first $ 245,000 to their City retirement plans, and the after tax costs borne by self-employed pilots in all

other associations to pay the employer portions of Social Security and Medicare. This analysis is set forth in Exhibit II-3. The net income figure is $ 326,856.

Compensation of the Hawaii Pilots

Pilotage in the State of Hawaii is provided by the Hawaii Pilots Association in all deepwater commercial ports. This includes seven ports and one anchorage at four islands. While about 80 percent of work occurs on the island of Oahu (where the ports of Oahu and Honolulu and related anchorages are located), the pilots travel by airplanes to serve ships at the other three islands. The nature of this work and travel requires that pilots and pilot boat operators frequently fly out to the islands prior to the ship arrival, remain on ships or islands for certain port calls when airline schedules cannot reasonably permit same day arrival at or departure from out islands, and ride ships from one island to another when this is most efficient. The direct distance between the Port of Honolulu and the Port of Hilo is approximately 170 statute miles.

There are 10 full pilots in Hawaii. The Consolidated Statement of Revenue, Expenses, and Members' Equity for the Years Ended December 31 2008 and 2009 indicates that total 2000 revenue was $ 4,186,230 (down from $ 4,821,788 in 2008) and that expenses were $ 2,211,180 (down from $ 2,628,342), and that net pilot distributions were $ 1,920,816 (down from $ 2,337,072). This decline was due to recessionary effects on trade, tourism, and cruise ship scheduling. Divided by the 10 full pilots, 2009 net income per pilot was therefore $ 192,082 per pilot. While Hawaii remains particularly sensitive to trade fluctuations, reliable 2010 data is not available and thus DMA has used the average of 2008 and 2009, which is $ 212,894. The Hawaii Pilots have a defined contribution and cash balance pension plan and a pilot business expense allowance and thus no further reductions were made.

Compensation of the Columbia River Bar Pilots

The Columbia River Bar Pilots pilot ships across the Columbia River Bar. They typically board ships about 10-15 miles off the bar and hand them over to the Columbia River Pilots in the Astoria, OR area, for further pilotage up the Columbia River to various Oregon and Washington state ports along the river. Pilotage on the Columbia is under the jurisdiction of the Oregon Board of Maritime Pilots. The heavy seas that can occur at the Bar have pose major challenges in terms of pilots boarding and being removed from ships and this has led to the use of specially-designed offshore pilot boats and the use of a dedicated helicopter to lower pilots onto the decks of ships by winch and wire. The Columbia River Bar Pilots are the only US pilotage organization that uses helicopter delivery of pilots as a routine element of their operations in the United States.

The earnings of the Bar Pilots has a target net income of $ 214,447 under the new order 10-02 of the Oregon Board of Maritime Pilots dated May 10, 2010.

IV. PILOT COMPENSATION IN THE STATE OF TEXAS

Compensation for the Sabine Pilots

The Sabine River Pilots serve the ports along the Sabine and Neches Rivers, including the port areas located at Port Arthur, TX, Beaumont, TX, and Orange, TX. The ports handle a variety of traffic including crude oil tankers, petroleum products tankers, chemical tankers, dry bulk carriers, general cargo ships, liquefied petroleum gas tankers, liquefied natural gas tankers, and combination carriers.

At present there are 29 Sabine River Pilots. In 2009, 1,825 vessels in foreign trade entered the port with a total gross tonnage of 57.7mm and more than 51,000 feet of inbound draft called at the port. 2010 saw an increase in traffic to approximately 2,000 vessels. Approximately 150 large domestic deep draft US-flag vessels also called in the area.

The analysis of the Sabine River Pilots considers both the river pilotage and the Pilots' outer bar pilotage services to the outer buoys that are seaward. Revenues were calculated based upon an analysis of the 2011 Pilots' tariff and 2009 Vessel Entrances as recorded by US Customs.

Total revenue of approximately $ 23.3 mm was calculated. Costs were estimated based on Sabine Bar's pace and operation (five pilot boats, no remote pilot station, 28 pilots, 2,006 vessel calls, and offshore outer bar pilotage service). Sabine Bar's estimated operating cost is $ 7.65 mm, net income would be approximately $ 15.7 mm. The analysis results in net income per pilot of $ 560,450.

In December 2008, the Sabine Port Commission ordered that the Sabine Pilots will have the following rate increases:

- 7% in 2009
- 7% in 2010
- 6.5% in 2011
- 3.0% in 2012
- Furthermore, the Commission ordered that from 2013 forward, tariff increases will be no less than 0% and no more than the increase in the PPI for navigational services to industrial shipping (PCU 488330).
- In addition, the pilot boat charges were adjusted upward.

Compensation for the Houston Pilots

The Houston Pilots serve all ports and terminals located along the Houston Ship Channel, including transit through the Galveston Bay entrance and pilotage out to the sea buoys offshore. Houston handles a wide range of ship types and sizes, including crude oil tankers, petroleum products tankers, chemical tankers, liquefied petroleum gas

tankers, dry bulk, container, roll-on/roll-off, pure car/truck carriers, multipurpose container/cargo ships, cruise ships and general cargo ships.

At present there are 85 full pilots and 5 apprentice pilots. In 2009, 5,908 vessels in foreign trade entered the port with a total gross tonnage of 156.0mm. A separate Federal pilotage service is available to serve US-flag ships engaged in coastwise trade.

The latest available financials of the Houston Pilots were set forth in the Annual Financial Report for the Year Ended December 31, 2003. This report provides expenses and earnings, combined statements of cash flow, analysis of retained earnings, comparative summary of pilotage fees, combined statements of vessel operating and dispatching expenses, combined statements of port safety and training expenses, general and administrative expenses, and notes to combined financial statements. Information of fiscal years 2002 and 2003 were provided in that report.

A similar Annual Financial Report for the Year Ended December 31, 2001 provided information for the years 2000 and 2001.

These financial reports reported the following annual distributions per active pilot:

- 2000 - $ 294,322
- 2001 - $ 288,399
- 2002 - $ 297,091
- 2003 - $ 327,852

Following a 7% increase effective December 15, 2003, the Pilot Board for the Ports of Harris County (Texas) prepared a Recommendation in late 2004, which authorized the following-general rate increases for the Houston Pilots:

- 5% effective December 15, 2004;
- 5% effective December 15, 2005, and
- 6% effective December 15, 2006

According to an article appearing in the MarEx website published by *Maritime Executive* magazine in December 2007, the Board of Pilot Commissioners of Texas voted to award the Houston Pilots increases of:

- 6% for 2008,
- 7% for 2009, and
- 8% for 2010

Based upon the four years of financial history, the rate escalations, and increases in operating costs in line with the CPI for Houston, distributions for the Houston Pilots

were derived as set forth below in Figure 5 for 2004, 2005, 2006 and 2007 and extended at the rates granted.

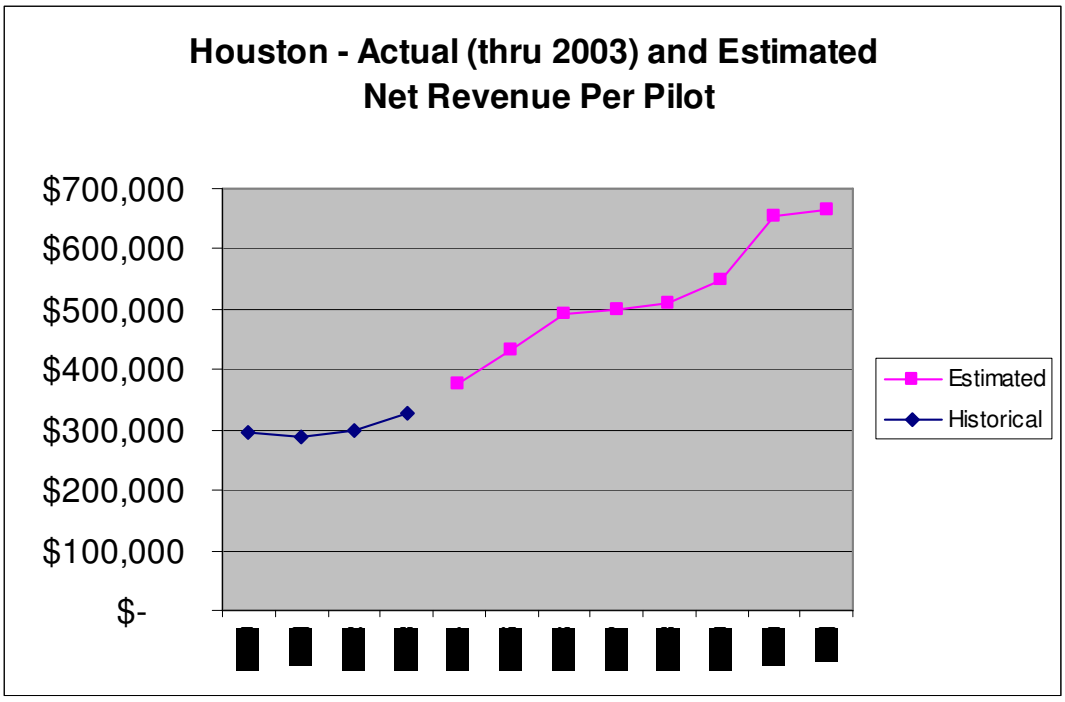
I have used additional information to update this analysis in this portion of my report. The Port of Houston's report entitled "Vessel Arrivals" provides monthly and year-to-date American and Foreign Flag vessel calls in the Houston Ship Channel, which is the service area for the Houston Pilots. Between 2003 and 2010, total vessel calls increased by about 22 percent – an average of about 2 percent per year. The August 2011 Port of Houston report suggests that year-to-date traffic in the 8-month period of 2011 was 7.4% higher in terms of ships calls (5,530 versus 5,147) and 6.8% higher in terms of tonnage (28.2mm tons versus 26.4mm tons). The tonnage statistics only apply to the publicly-controlled facilities in Houston and exclude private terminal.

A reliable maritime source has provided what I believe to be reliable information on the number of recent, authorized and projected Houston Pilots. The Houston Pilots indicated that as of April 2008 they had 72 full pilots, plus 17 deputy pilots. The number of full pilots declined from 78 in 2003. The deputy pilots perform some pilotage services on smaller/reduced draft vessels as their training proceeds during a three-year deputy program. In 2009, the Houston Pilots expected to produce 6 full pilots per year, who will replace retiring pilots and increase the pilot complement. The Houston Pilots were authorized for 82 pilots at that time and planned to have 92 pilots by 2014. Reliable sources indicate that in September 2011 the Houston Pilots had 85 full pilots and 5 apprentice pilots at various stages of their training and development.

Revenue is adjusted for 2010 vessel calls in addition to the approved tariff increases, which have been approved through 2010 and remains in effect for 2011. I have also adjusted the number of effective (full and third-year) pilots upward based on reported Houston pilot and deputy pilot plans. The percent of payout was decreased and the percent paid to retired pilots was increased in anticipation of more pilots retiring. I have assumed that as a consequence of the 2008 stock market downturn and the continuing volatility in the stock market, the Houston Pilots are no longer able to draw funds from an over-funded pension.

The resulting net income per pilot for Houston is shown below in Figure IV-1

Figure IV-1



The Houston Pilot Model appears below as Exhibit IV-1

Figure IV-1

RECAP OF HOUSTON PILOTS DISTRIBUTION PER ACTIVE PILOT

	Ship Traffic Volume Change	Rate Increase	Revenue	Costs Expenses	Houston-Galveston-Brazoria CPI-U Pct Change	Excess Of Revenue Before Distribution	Cash Distributions to Active and Retired Pilots	Percent of Excess Revenue	Pct to Retired Pilots	Distributn to Active Pilots	Number of Active Pilots	Average Distributn Per Active Pilot	Percent Net Revenue
2000			32,082	14,282		17,800	21,609	121%	0.015	21,283	72.1	295,187	66.3%
2001	*-2.8%*		33,311	15,187		18,124	21,245	117%	0.009	21,052	72.8	289,176	63.2%
2002	*-3.0%*		35,225	14,895		20,330	23,352	115%	0.007	23,179	77.9	297,548	65.8%
2003	*-1.8%*		39,486	17,914		21,572	25,780	120%	0.007	25,610	78.0	328,333	64.9%
2004	*8.0%*	*7.0%*	**45,630**	**19,809**	3.5%	**25,821**	**29,694**	**115%**	**0.010**	**29,398**	**78.0**	**376,892**	64.4%
2005	*10.6%*	*5.0%*	**52,990**	**22,402**	3.6%	**30,589**	**34,259**	**112%**	**0.013**	**33,831**	**78.0**	**433,731**	63.8%
2006	*8.1%*	*5.0%*	**60,146**	**24,640**	2.8%	**35,506**	**39,057**	**110%**	**0.015**	**38,471**	**78.0**	**493,218**	64.0%
2007	*-2.0%*	6.0%	**62,480**	**24,589**	1.8%	**37,891**	**39,786**	**105%**	**0.020**	**38,990**	**78.0**	**499,875**	62.4%
2008	*3.2%*	*6.0%*	**68,348**	**26,048**	*3.3%*	***42,300***	***42,300***	***100%***	***0.025***	***41,243***	***81.0***	***509,168***	60.3%
2009	*-1.6%*	*7.0%*	**71,963**	**25,719**	*0.2%*	***46,243***	***46,243***	***100%***	***0.030***	***44,856***	***82.0***	***547,024***	62.3%
2010	*8.8%*	*8.0%*	**84,559**	**28,231**	*1.9%*	***56,328***	***56,328***	***100%***	***0.035***	***54,356***	***83.0***	***654,897***	64.3%
2011	5.0%	*0.0%*	**88,787**	**30,377**	*3.3%*	***58,409***	***58,409***	***100%***	***0.035***	***56,365***	***85.0***	***663,118***	63.5%

Since 2003:	47%	53%	125%	90%	pct op costs volume dependent
Ave. Growth	3.0%			90%	pct op costs CPI dependent

All figures in $mm except Average Distribution Per Active Pilot

Source: DMA analysis based on audited financial through 2003, Houston Port traffic data through 2011, and MarAd and US Customs ship call data through 2010 and 2009 respectively.

Historical and predicted Houston pilot net income is presented in tabular form below in Figure 7. In August 2008, information was obtained from reliable maritime sources indicated that average Houston pilot net income was approximately $ 460,000 in

2007. DMA's model achieved a result within 8 percent of that figure as shown Figure IV-3 below.

Figure IV-2

Houston Pilot Net Revenue

	Historical	Estimated
2000	295,187	
2001	289,176	
2002	297,548	
2003	328,333	
2004		376,892
2005		433,731
2006		493,218
2007		499,875
2008		509,168
2009		547,024
2010		654,897
2011		663,118

Sources: Houston pilots to 2003, DMA afterwards

Compensation for the Galveston-Texas City Pilots

The Galveston-Texas City Pilot Association ("Galtex Pilots") serves all ports and terminals in the Galveston and Texas City area, including transit through the Galveston Bay entrance and pilotage out to the sea buoys offshore. Galveston handles a wide range of ship types and sizes, including passenger, dry bulk, container, roll-on/roll-off, pure car/truck carriers, multipurpose container/cargo ships, and general cargo ships. Texas City ship traffic includes crude oil, chemical, petroleum products and liquefied petroleum gas tankers, dry bulk and combination carriers, and general cargo shipping

In 2009, 2,829 vessels in foreign trade (2,305 in 2006) entered the port with a total gross tonnage of 57.1mm. This included more than 1,000 vessels with drafts of less than 19 feet, including many offshore support vessels. The pilot group also handles many of the approximately 215 deep-draft US-flag tankers, bulk carriers, other cargo ships and tank and dry bulk tug-barge units that call in the Galtex area.

The Galveston-Texas City Pilots Galveston-Texas City Pilots and Galtex Pilots Service Corporation Combined Financial Statements and Independent Auditor's Report provides information for fiscal years 2008 and 2007. I also relied on income statements and balance sheets which include information for FY 2004 and FY 2005 and FY 2006.

These fiscal years end on May 31. The information was provided for the purpose of comparison of pilot net income. Gross revenues/cash draw of the Pilots was as follows:

- FY 2008 - $ 5.031mm ($ 314,453 for each of 16 pilots – pilot compensation)
- FY 2007 - $ 4.856mm ($ 303,500 for each of 16 pilots-pilot compensation)
- FY 2006 - 4.217mm ($ 263,563 for each of 16 pilots – gross income)
- FY 2005 - 4.614mm ($ 288,375 for each of 16 pilots- gross income)

From this gross revenue, costs for self employment, SEP, and local transportation are deducted and adjusted for tax credits. The Galveston-Texas City pilots have 14 full pilots as of September 2011 and have 3 deputy pilots in training. The organization expects to have 16 or 17 full pilots in the near future. DMA's analysis based on extension and adjustment from prior financials estimates Galtex revenues of $ 10.45mm, total expenses of $ 6.1mm and net income for pilots of $ 4.3mm. Divided by 14 pilots, this results in net income per pilot of $ 310,521, from which the transportation expense has been deducted for an after-tax adjusted net income of $ 306,621.

In 2009, discussions with Mr. Ron Ritter, Business Manager of the Pilots indicated that the Galveston-Texas City pilots are each responsible for self employment taxes, funding a SEP, and for non-reimbursable expenses for "harbor transportation", which includes local car mileage and the use of cabs or other arrangements in order to pick-up and drop off cars. While some exchanges of cars between pilots can be arranged, the more than 6,000 jobs by the 14 pilots (and 3 deputy pilots) requires an estimated $ 20 outlay for each of 317 trips per pilot per year. This $ 6,000 per pilot is a deductible expense.

The Galveston-Texas City Pilots are organized as a corporation with each pilot providing service to the corporation as a contractor. An affiliate service company, Galtex Pilots Service Corp., provides for the pilot boat, pilot station, and general and administrative services, pensions paid to retired pilots, disability expense, pension plan, and payroll taxes.

In late 2007, the Galtex Pilots were awarded a 5% increase on certain elements of their tariff structure, which was their first increase since 2000. This increase had little, if any, impact on pilot net income because this increase was intended to cover increases in operating expenses. In 2011, Mr. Ron Ritter of Galtex indicated that rising diesel fuel prices had led to very significant increases in Galtex pilot boat operating costs, due in large part to the relatively long distances that the pilot boats are required to make to and from the Galveston Bay sea buoys and anchorage areas. Mr. Ritter also confirmed that the general level of net income is close to the DMA estimate.

Compensation for the Brazos Pilots

The Brazos Pilots Association serves the Port of Freeport in Brazoria County, TX. The port handles a wide range of ship types and sizes, including crude oil tankers, petroleum products tankers, liquefied petroleum gas tankers, dry bulk, multipurpose container/cargo ships, and general cargo ships. The Association corporate structure is as a 501-(c)-(4) organization, which is typically Civic League, Social Welfare Organization, or Local Associations of Employees. It is exempt for both Federal and State taxes. The Association charges service fees to ships calling at Freeport and pays all operating costs, including fees charged to the Association as "pilot fees" by the three pilots and a deputy branch pilot who treated as a (junior) partner, not an employee.

DMA believes that the pilotage revenue base at Freeport did not increase between 2009 and 2010. While ship calls increased by approximately 5%, the deadweight tonnage that called decreased by 5%, leaving the revenue basis essentially flat. Consequently, no activity adjustment in revenue has been made.

Due to the organization of the Association as an Organization Exempt from Income Tax type 501-(c)-(4), the Association's tax returns are filed with the Internal Revenue Service. In 2009, the Association reported pilotage fee expenses of $ 2,929,027 on Statement 1 of its return. The average pilotage fee paid by the Association to its three full pilots and one deputy branch pilot in 2009 was $ 2,929,027 or $ 530,412 per pilot. This analysis has divided the pilotage fee expense (equivalent to net income) by four pilots, anticipating that the deputy pilot will be a full pilot. The deputy pilot has the same last name as a former pilot.

Based on a review of the expenses paid by the Association for its operation, I have determined that Brazos full pilots are not covered or benefiting from any of the employer or pilotage associated-related expenses. The pilots pension and medical insurances must be deducted from their fees charged to the Association, which is equivalent to net income..

In November 2008, the West Gulf Maritime Association (WGMA) reported that the Brazos Pilots filed for an adjustment to rates as follows and in 2009 the WGMA reported that increases were agreed at various terminals including Brazos.

- 3% in 2009
- 3% in 2010
- 3% in 2011

In order to determine Brazos pilot net income, I have assumed that each pilot is the sole proprietor and employee in a Limited Liability Company. Accordingly, I have deducted self-employment costs from the $ 523,893 fee income for each pilot as shown in Figure 3 to derive net pilot revenue of $ 478,920.

Compensation of the Aransas-Corpus Christi Pilots

The Aransas-Corpus Christi Pilots serve the greater Corpus Christi area, including the ports of Corpus Christi, La Qunita and Ingleside, which cover a distance of 32

nautical miles from the sea buoy. The ports handles a variety of ship types including crude oil tankers, petroleum products tankers, chemical tankers, combination ore/oil/bulk dry bulk carriers, and general cargo ships and is principally involved in refining, petrochemical production, grain loading and alumina and bauxite processing.

In 2009, 1,229 vessels in foreign trade entered the port with a total gross tonnage of 42.0 mm. In addition, approximately 210 ocean-going US-flag self-propelled and tug-barge trips occur. There are currently 13 pilots serving the port area.

The Corpus Christi Pilots submitted an income statement for the year ending December 31, 2007, with projections for the years ended December 31, 2008, 2009, 2010, and 2011 based on certain assumed increases. The income statement for 2007 is based upon audited financial statements prepared by its CPA. The 2007 statement reveals total revenue of $ 8.234mm and total cash expenses of $ 2.54mm prior to the payment of: pilot medical expenses; pilot retirement funding; and retired pilot payments. The gross revenue to the pilots was therefore $ 5.794mm, from which the following costs are deducted:

- Pilot medical expenses, which the Pilots' income statement specifies as: "19,020+3,330)x14" for a total of $ 312,900
- A retired pilot pension burden of $ 479,613 to cover 3.5 pilots assumed to be retired and drawing a range of pilot shares (50% for those 0-10 years after retirement, 33% for those 10-20 years after retirement, 25% for those more than 20 years after retirement)

The distributable net income to the Corpus Christi Pilots in 2007 was $ 4.901 mm, or net income for each of 13 pilots of $ 377,000 per pilot.

The Corpus Christi pilots received a general increase of 7% in fees for 2008 and modified their initial request for tariff adjustments downward on October 30, 2008 to:

- 6% effective January 1, 2009;
- 4% effective January 1, 2010;
- 4% effective January 1, 2011; and
- 4% effective January 1, 2012.

This modification was accompanied by a letter of support from the Port Industries of Corpus Christi ("PICC"). DMA's estimate is that relative to the 2007 data, revenue increased but traffic declined. The active pilots share net income with retired pilots, with 14 active pilot shares and 1.3 retired pilot shares for a total of 15.3 shares of net income.

DMA has estimated 2010 traffic based upon 2010 MarAd vessel calls, and has adjusted costs. Based upon 13 active pilots plus retiree shares, the net income per pilot is estimated to be $ 448,405 in 2011.

V. PILOT COMPENSATION IN THE STATE OF LOUISIANA

Compensation of the Crescent River Port Pilots

The Crescent River Port Pilots Association ("CRPPA") serves foreign-flagged vessels traversing the Mississippi River between Pilottown (near Venice, Louisiana) and the Port of New Orleans, Louisiana, a route of approximately 103 miles. In December 2008, the CRPPA negotiated a settlement before the Louisiana Pilot Fee Commission. This agreement established baseline net income (termed the "base component") be $ 378,000 per pilot beginning on January 1, 2009 for 106 authorized pilots, based upon an agreement achieved and approved by the Pilot Fee Board. All other expenses are adjusted annually to cover costs through separate adjustments to those fees and expenses and do not effect pilot compensation.

The pilot net income is adjusted based upon the Bureau of Labor Statistics Consumer Price Index for Southern Urban consumers (CPI-SU) and is based on the five-year rolling average index as of June 30th of each year. The adjustment for 2011 pilot compensation was established on November 1, 2010 by letter from the CRPPA legal counsel Andrew B. Ezell to the Louisiana Pilot Fee Commission. The 2011 net income was calculated to be $ 397,826 based on the CPI-SU adjustment of 2.049.

Compensation of the New Orleans-Baton Rouge Steamship Pilots Association of New Orleans

The New Orleans - Baton Rouge Pilots Association ("NOBRA") serves ships between New Orleans and Baton Rouge, a route of approximately 130-137 miles. This portion of the river is used by a variety of international trade vessels including crude oil tankers, petroleum products tankers, dry bulk, container, roll-on/roll-off, pure car/truck carriers, multipurpose container/cargo ships, and general cargo ships.

NOBRA has reported in its ATRAM filing for the year ending December 31, 2004, that its annual pilot compensation was $ 363,108 for each of 108 pilots which is adjusted for self-employment to $ 355,854 in Figure 3. This compensation level was used for an application to adjust its tariff by 6% effective July 1, 2005 Tariff. This was the last ATRAM filing made by NOBRA and the 2005 Tariff is still in effect.

NOBRA had 108 pilots in 2004 gradually reduced the number of pilots to 100 as of mid-September 2011. It is expected that NOBRA will seek a hearing to increase its rates and to increase the number of full pilots by 10% to 110 pilots in early 2012. NOBRA is also expected to file an application increase during the summer of 2012 which will seek authorization to further increase its pilot ranks to an ultimate 122. This information is based on reliable Lower Mississippi River pilot sources in September 2011.

During the approximately seven years since its last rate increase, NOBRA reduced the number of pilots by about 7% and experienced a change in traffic from 2003 to 2009 (the last full year prior to filing for a rate change) of approximately -1.1% based on international ship calls, +5.4% in gross tonnage, and -1.4% in terms of total draft of vessels. These figures are based on Vessel Entrance and Clearance statistics through 2009. NOBRA's 2009 financial statement (extracted from audited report) filed with the State of Louisiana indicated that pilot compensation was $ 41,535,626. Divided by 100 pilots, this is equivalent to $ 415,356.

Compensation of the Associated Branch Pilots of the Port of New Orleans

The Associated Branch Pilots of the Port of New Orleans ("Bar Pilots") serve ships traversing the southernmost portion of the Mississippi River, between Pilottown (near Venice, LA) and the Gulf of Mexico via Southwest Pass, a route of approximately 24 miles, and other related routes. The Bar Pilots provide pilotage to all foreign-trading ships entering the Mississippi River.

On June 30th, 2011, the Bar Pilots' Certified Public Account, Mr. Ronald W. Garrity filed the Financial Statement and Auditor's Report for the Associated Branch Pilots for December 31, 2010. Page 5 is the Statement of Earnings, which shows net income for the pilots of $ 16,200,831 in the pilots compensation. The addition of other subsidiary funds (capital surcharge, pension surcharge, Vessel Traffic Service surcharge, Hurricane Katrina surcharge), and Mile 12 Property Fund collectively adjust total net earnings up to a $ 17,152,875. Adjusting for the CPI-SU in a manner similar to the Crescent River Port Pilots by 2.049%, the compensation per pilot for 2011 would be $ 397,826. This is within 0.4% of the net income for the Crescent Pilots.

Compensation of the Lake Charles Pilots

The Lake Charles Pilots provide pilotage service on the Calcasieu River which extends more than 35 miles inland from the sea and serves the port of Lake Charles, LA. The Lake Charles Pilots also provide outer bar pilotage service on the seaward approach channel for a distance of about 32 miles.

The most recent rate adjustment process was completed in the Spring of 2008 and the tariff, based upon a stipulated settlement agreement, established target pilot compensation of $ 358,750 by order of the Louisiana Pilotage Fee Commission. This figure is net income, not including benefits and is in force for the period from July 1, 2008 to March 31, 2009, and will be subject to a CPI adjustment formula for future years. Effective April 1, 2009 projected annual target compensation for each of the Lake Charles pilots was $ 372,500, the same amount established for the Associated Branch Pilots.

This has been adjusted with the CPI-SU in 2009, 2010, and 2011. The Consolidated Financial Statements for the fiscal year ended March 31, 2011 reveal that

the base compensation of the pilots was $ 6,557,550. An additional $ 833,000 in retirement expenses were also paid by the Association. During this fiscal year the number of Lake Charles pilots was 17, for a base compensation of $ 385,738. The retirement expense is a defined benefit plan which is structured as an employer-paid Self Employed Pension (SEP) plan and in FY 2011 was funded at the maximum $ 49,000 per pilot. This payment is technically paid by the pilots' individual limited liabilities company. Reliable information indicates that the Pilots' do not gain a net tax deduction from their association's coverage of this expense and consequently the net income of the Lake Charles Pilots is set at $ 385,738.

VI. PILOT COMPENSATION IN THE STATE OF MISSISSIPPI

Compensation of the Pascagoula Pilots

The Pascagoula Pilots serve the Port of Pascagoula including all points in the area, which includes the Chevron refinery at Bayou Cassotte, which is by far the single largest driver of shipping calls and tonnage. These facilities handle a variety of ship types including crude oil tankers, petroleum products tankers, chemical tankers, combination ore/oil/bulk ships, dry bulk carriers, and general cargo ships. An LNG terminal began operations in 2011. Several shipyards and offshore repair and conversion facilities also service vessels and drilling rigs.

According to the Pascagoula Bar Pilots Association website there are 7 pilots. In 2009, 695 vessels in foreign trade entered the port with a total gross tonnage of 21.9mm. An additional 161 US-flag tankers large tug-barge units departed for coastwise voyages at drafts greater than 18 feet.

No financial information concerning Pascagoula Pilot finances is publicly available. Thus the revenues were estimated using 2009 traffic levels and the prevailing pilotage tariff as posted by the Port of Pascagoula. Pascagoula's pilots had tariff increases of 5% in 2008, 5% in 2009 and 5% in 2010. Total revenue in the port is estimated to be $ 3.63mm in 2010. The organization's total operating costs are estimated at $ 0.91mm in 2010. Net income is calculated to be $ 2.72mm and for the seven pilots, average net income per pilot is calculated to be $ 387,829 before adjusting for self-employment costs.

Reliable maritime sources have informed me that the Pascagoula Pilots do not have organization-paid pension or medical benefits. The net cost to pilots to purchase these as self-employed pilots was calculated as set forth in Figure I-4 and used to adjust the net compensation to $ 339,866.

VII. PILOT COMPENSATION IN THE STATE OF ALABAMA

The Mobile Bay and Bar Pilots serve the greater Mobile Bay area, including the ports of Mobile and other industrial zones such as Theodore, AL. The ports handle a

diverse range of ship types to support coal exports, railcar ferry service, unfinished steel imports, chemical production and processing, and other trades. In addition, Mobile receives domestic tankers and ocean-going tug-barges, as well as a wide range of ships and barges calling for drydocking, repairs, and conversion. The pilots maintain a pilot station at the mouth of Bay.

Mobile Pilot information on revenues, costs, and net income has never been disclosed to the public. Consequently, I analyzed 2005-2009 all international vessel calls and domestic shipping activity. I then applied the prevailing tariff elements (Mobile has adjusted its draft and gross tonnage charges during this period) for draft, gross tonnage, various fees, incidental fees to estimate total revenues. I also estimated the pilots' total expenses. Mobile Pilot total revenue is estimated to be $ 7.04mm with expenses at $ 2.626mm.

The relationship between the individual pilots and the organization is not yet documented, but I have reliable information that pension contributions are not currently paid by the organization. Consequently, the income would be reduced by $ 49,000 (2010 SEP basis) and offset by certain tax savings to reflect the maximum SEP that a self-employed person can contribute to a plan. At this time, I assume that other employer paid costs are paid by the organization. Thus the aligned net income per pilot is $ 335,744 for each of 12 full pilots.

VIII. PILOT COMPENSATION IN THE STATE OF FLORIDA

Compensation of the St. John's Bar Pilots

The St. Johns Bar Pilot Association serves ports on the St. Johns River, including Mayport and the Port of Jacksonville, FL. The pilots handle a wide range of vessels with leading types being In 2010, vessels in foreign trade entered the port with a total gross tonnage of 42.9mm. The SJB pilots performed a total of 4,248 jobs in 2007. Based on 2010 Marad ship call data and 2007, 2008, and 2009, DMA has estimated 2010 pilot activity and revenues.

In June 2008, the St. John's Bar Pilot Association filed an Application for a Change in Rates of Pilotage. This application includes an audited financial statement prepared by Presser, Lahnen & Edelman, CPA of Tampa. The financial statements include income statements and balance sheets for CY 2006 and 2007. The data reveals distributions to members of $ 4,369,448 in 2006 and $ 4,361,856 in 2007. The average number of pilots in the organization was 12. This implies average net income per pilot of $ 364,120 in 2006 and $ 363,488 in 2007. DMA was been informed by the pilots that 2008 net income was similar to 2007. The principal elements of revenues are based upon vessel draft and gross tonnage.

The prevailing tariff dates from 2004. 2010 costs are based upon the audited 2007 costs structure and projections as projected by the pilots through 2010. 2010

revenue is based upon 2009 Vessel Entrances and Clearances data and the prevailing tariff, with an allowance for shifting and other revenues.

DMA's analysis estimates 2011 net income at $ 381,034.

Compensation of the Port Everglades Pilots

The Port Everglades Pilots serve Port Everglades and Dania, FL. Port Everglades handles a wide range of ship types and sizes, including cruise ships, petroleum products tankers, dry bulk, container, roll-on/roll-off, ocean-going tank tug-barge units, LPG barges, day-cruise passenger/ferry ships. For its activity and tonnage, Port Everglades is very compact, but it involves sharp turns, very narrow and deep berths, and navigation on the Gulf Intracoastal Waterway to the Southport area. Dania is a small, privately-operated shallow-draft terminal located on the Gulf Intracoastal Waterway.

In FY 2009, 3,803 vessels in foreign trade entered the port with a total gross tonnage of 92.1mm. The recent peak in traffic was in 2007 with 4,822 vessels and gross tonnage 102.7mm. In addition to foreign trade, approximately 450 US-flag ships and ocean-going tug-barge units call at the port on domestic voyages.

As part of the St. Johns Bar Pilot Association 2008 application for change of rates of pilotage, the Investigative Committee of Business and Professional Regulation Pilotage Rate Review Board ("FPRRB") presented its review and investigation in 2008 to support a hearing held in March 2009. The Board presented Table 3: Handles, Pilots and Revenue – 2007 data which compared key metrics for all active Florida Ports and their pilot organizations. The report reveals that the Port Everglades Pilots' Association and Affiliates generated 2007 revenue of $ 12,070,634 and that there were a total of 16 pilots. Gross organization revenue per pilot was therefore $ 755,040 in that year, from which operating and capital expenses must be deducted to derive pilot salary income. DMA's analysis of Broward County data for Port Everglades in 2010 and the 2007 Vessel Entrances and Clearances data for 2007, 2008, and 2009 developments in traffic, suggest that in 2010, revenues had declined to $ 10.39mm.

The Port Everglades Pilots last filed an application for a rate increase circa 2001 that was accompanied by a case file that presented a CPA-prepared financial projection for the years 2000, 2001, 2002, and 2003. The projected CY 2003 operating expenses for the Pilots were $ 3.932mm. When adjusted by the national urban CPI-U, operating costs would be $ 4.734mm in 2010. When deducted from the gross organization revenue per pilot, this results in per pilot net income of $ 282,803 for each of 20 pilots.

Compensation of the Biscayne Pilots

The Biscayne Pilots service the Port of Miami including the deepwater port and ships bound for the draft-restricted Miami River. The pilots handle cruise ships,

containerships, roll-on/roll-off ships, multipurpose cargo ships, and smaller short-sea ships engaged in container and break-bulk cargo operations. The Biscayne Pilots have particular responsibilities that impose certain costs, notably acting as harbormaster with respect to the coordination of ship traffic and resolving navigational issues. The Pilots also mount certain traffic information systems.

In 2009, vessels in foreign trade entered the port with a total gross tonnage of 81.8 mm. This very high figure includes passenger cruise ships, some of which have very high gross tonnages. In addition, some large tank barges and a few dry barges called in the port on coastwise voyages and were piloted.

In October 2008, the Biscayne Pilots filed an application for a rate increase. This application was subsequently withdrawn. The Pilots last rate adjustment was in 2002. The 2008 application provides historical audited financial statements for 2006 and 2007 and projected financial statements for 2008 through 2011. These financial statements confirmed that the Biscayne Pilots pay all medical insurance and retired pilot pension costs The pilots reported net income of $ 6,269,215 in 2007 and $ 6,061,000 in 2008.[4] The average net distributions to pilots were $ 6,402,179 in 2007 (audited) and were projected to be $ 5,529,000 in 2008 (projected by auditor).[5] The pilot's financial statements anticipated a decrease in revenues that reflected the recession of 2008/2009.

Actual operating expenses in 2007 were $ 3.80mm and in 2008 (the present year of the application) were projected to be $ 4.1mm).

The number of pilots in 2007 is not stated, but the application indicates that the number of pilots has been reduced from 19 to 17, with 17.5 in service during 2008. In 2011 the number of pilots listed on the website as 16 and in September 2011, the pilot number was reported by reliable source to be 17, which was used.

DMA analyze Vessel Entrances and Clearances data for the 2005 to 2009 period as well as 2003 to 2010 data from the Port of Miami. Miami experienced a decline in the number of port calls in 2008, but recovered to its 2007 levels in 2009. 2010 saw a slight increase in the number of cargo ships and a slight increase in passengers. Overall DMA estimates that Biscayne Pilot revenue increased from $ 10.18mm in 2007 (actual) to $ 10.62mm in 2010 and that its total costs increased from $ 4.2mm in 2007 (actual) to $ 4.4mm in 2010.

Biscayne Pilot average net income is estimated to be $ 364,900 per pilot in 2010. This was largely achieved by a reduction in the number of pilots from 18.92 in 2007 to 17 in 2011 as ship calls remained essentially unchanged.

Compensation of the Tampa Bay Pilots

[4] Biscayne Bay Pilots Application 2008, section 7.
[5] Biscayne Bay Pilots Association 2008, Accountant's Compilation Report, page 3.

The Tampa Bay Pilots serve various ports including the greater Port of Tampa as well as Port Manatee and St. Petersburg, FL which are all located within Tampa Bay. The pilots handle a wide range of ship types and sizes including petroleum products tankers, LPG and ammonia pressurized tankers, dry bulk, and cruise ships. The pilots maintain a pilot station at Egmont Key near the entrance to the Bay. Its fleet of pilot boats are taking pilots to and from ships at these locations. The association had 23 pilots in 2009, based upon its website. Many voyages to and from the sea buoy are long, with an average ship handling time of 7.5 hours reported by the Florida Professional Regulatory Board .

In 2009, 1,089 vessels in foreign trade entered the port with a total gross tonnage of 30.1mm. In addition, more than 700 US-flag ships and ocean-going tug-barge units call in the Bay to deliver petroleum products, coal, chemicals, and agricultural products, and to load phosphate rock and fertilizer.

The FPRRB report reveals that in 2005, the Tampa Bay Pilots generated $ 12,394,180 in revenue and that there were a total of 25 pilots.

In May 2008, the Tampa Bay Pilots Association filed an Application for a Change in Rates of Pilotage for the Port of Tampa Bay. This application includes an audited financial statement prepared by McCarthy, Valiente & Alvarez, CPA of Tampa. The financial statements include income statements and balance sheets for CY 2005, 2006 and 2007. The accounts include a determination of "single pilot share – net income" which were:

- $ 337,393 in 2005 (23.2 pilots)
- $ 365,513 in 2006 (20.9 pilots) and
- $ 275,660 in 2007 (19.4 pilots)

In November 2008, the Florida Pilotage Rate Review Board approved a series of tariff adjustments which has the effect of increasing pilot revenue by approximately 6 percent. These adjustments took effect on February 1, 2009.

DMA has analyzed available Vessel Entrances and Clearances, MarAd and Army Corps of Engineers traffic data for the period 2005 to 2010. Based upon 2009 data, there were 1,089 vessel entrances in international trade and a total of 782 tankers, large tug-barge units and US-Flag dry cargo ships called in coastwise trade. Based upon the changes in traffic between 2007 and 2009, and the tariff basis, DMA estimates 2010 revenue to be $ 10.27mm, total expenses at $ 5.62mm, and net income to be $ 4.65mm, which divided by 23 pilots results in Tampa Bay net income per pilot of $ 202,266.

IX. PILOT COMPENSATION IN SOUTH CAROLINA AND GEORGIA

Compensation at the Port of Savannah

The port of Savannah, GA is served by the Savannah Pilots Association which provides pilotage on the Savannah River and other waterways over a distance of approximately 25.5 miles, including distance at sea. The river extends about 19 miles above the mouth of the river. Downtown Savannah is approximately 15 miles above the mouth of the river. This organization's website identified 19 pilots, 4 dispatchers and 2 office staff.

At the time of writing, a reliable source indicates that the Savannah Pilots have 21 pilots and 5 deputies. The Association operates three pilot boats capable of operating outside the sea buoy. The pilot boat station is remote from the city of Savannah, located about 12 miles from the sea buoy. Pilotage can take place up to two miles seaward (eastward) of the Savannah River sea buoy. In 2009 Savannah handled a total of 2,586 cargo ships in international trade with a total gross tonnage of 107.3mm. The port handles containerships, dry bulk carriers, products tankers, roll-on/roll-off, and general cargo ships. Domestic deep-draft trips consisted of 80 tankers and large tug-barge units. MarAd data suggests that in 2010 ship calls increased by 8.4% and 7.1% respectively, but DMA decided to rely of the more definitive 2009 data for reasons of certainty. Savannah has been growing in ship calls and gross tonnage in recent years, in contract to Charleston which has been experiencing overall decline.

There is no publicly-available information on rate-setting and/or net pilot revenue reports or hearing for the Savannah pilots. Consequently, DMA has analyzed the latest international trade ship traffic available to derive revenue and has deducted estimated expenses to determine net income. Based upon approximately 2,586 ship calls based upon 2009 vessel entrances and clearances and the domestic activity, the organization's gross revenue is estimated at $ 18.07mm. After deductions of estimated expenses of $ 5.031mm for general and administrative, pilot boat operations, pilot boat fuel, pilot medical insurance, pilot pension, and other pilot expenses, DMA estimates the distributable revenue to pilots to be $ 13.035mm. The cost structure reflects reliable information that the Savannah Pilots' pension plan provides retired pilots with 75% of current pilot income. This high coverage raises operating costs. Divided by 21 pilots, this is equivalent to net income of $ 620,729 per pilot. Savannah's pilots have been the highest paid in DMA's in this and prior reports.

Compensation at the Port of Charleston

The Port of Charleston, SC is served by the Charleston Branch Pilots Association. The pilotage area extends from its sea jetties to the City of Charleston and the Cooper, Wando, and Ashley Rivers. The overall distance is approximately 7 miles. The association's website lists 19 pilots and 3 apprentice pilots, but DMA has learned from reliable sources that at the time of writing there were 20 full pilots. DMA used the 20 pilots for its analysis. The Charleston Association operates four pilot boats, two designed for seaward service and two for river work Inbound vessels are boarded near the sea buoy outside jetties. The Charleston Navigation Company ("Navco") is owned by

the Charleston Pilots and provides a wide range of operational services pertaining to dispatch, pilot boat operations, pilot boat maintenance, and pilot station services. Navco owns a pier and related structures on the Cooper River at 6 Concord Street. In early 2008, it was reported that $ 1.3mm was spent rehabilitating their Concord Street "pilot house". Charleston's international ship traffic has declined in recent years, from a high of 2,336 ship calls to 1,843 in 2009. In 2010, Maritime Administration statistics indicated a 2.5% further drop in ship calls, but a 4.6% increase in deadweight. DMA decided to use 2009 data for international and domestic calls because it is complete and definitive.

There is no publicly-available information on rate-setting and/or net pilot revenue reports or hearing for the Charleston pilots. Consequently, DMA has analyzed the latest international trade ship traffic available to derive revenue and has deducted estimated expenses for to determine net income. Based upon approximately based upon 2009 Vessel Entrance and Clearances and considering the 2010 MPC trade in 2010, DMA estimates the organization's gross revenue to be approximately $ 12.1mm. After deductions of estimated expenses of $ 4.146mm for general and administrative, pilot boat operations, pilot boat fuel, pilot medical insurance, pilot pension cost, and other pilot expenses, DMA estimates the distributable revenue to pilots to be $ 7.956mm. Divided by 20 pilots, net income is equivalent to $ 397,818 per pilot.

X. EXPENSES PER PILOT

Pilot Organization Expenses Per Pilot

While pilot organizations share many of the same operational functions, their costs vary due to variations in many factors. Some of these factors are operational (route, distances, outside outer bar versus estuarial or inland navigation, the need for remote pilot stations and related support services, levels of activity, length of deputy pilot programs, need for hurricane-proof pilot stations, Vessel Traffic Control services, use of automobiles, need for drivers to pick up from and deliver pilots to ships, idling time and offshore, transfer of pilots to remote locations).

Other are organizational and/or administrative (need for professional services for rate and regulatory hearings, use of and need for executive directors, need for boat maintenance and repair personnel, basic duty coverage for dispatching, legacy pension issues, and the provision of pensions, health care, insurances for pilots). As a consequence costs will vary amongst pilotage organizations.

Exhibit X-1 presents a tabulation of all non pilot net income costs for various organizations and the cost per pilot.

Exhibit X-1

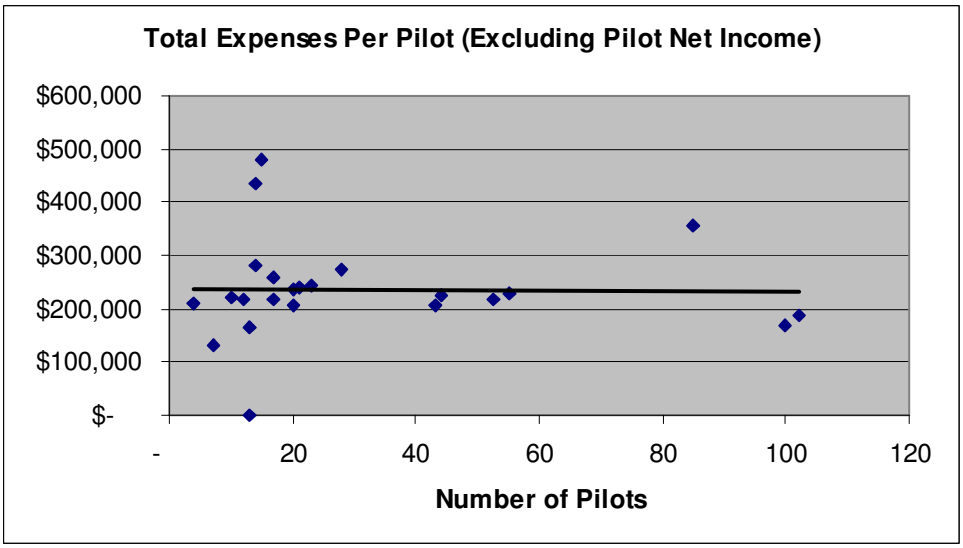
COMPARISON OF TOTAL EXPENSES (EXCL. PILOT NET INCOME)

	Total OpEx	Pilots	Per Pilot
Puget Sound, WA	$ 11,329,000	52.5	**$ 215,790**
Columbia River Pilots, OR	8,882,000	43.0	**206,558**
San Francisco, CA	12,670,000	55.0	**230,364**
Los Angeles Pilots, CA	n/a	13.0	
Hawaii, HI	2,211,180	10.0	**221,118**
Columbia River Bar, OR	7,180,000	15.0	**478,667**
Corpus Christi, TX	2,134,478	13.0	**164,191**
Freeport, TX - Brazos	833,495	4.0	**208,374**
Galveston-Texas City, TX	6,100,000	14.0	**435,714**
Houston Pilots, TX	30,377,486	85.0	**357,382**
Sabine River, TX	7,650,000	28.0	**273,214**
Lake Charles Pilots, LA	3,718,000	17.0	**218,706**
Associated Branch Pilots, LA	9,951,000	44.0	**226,159**
Crescent River Port Pilots, LA	19,250,000	102.0	**188,725**
New Orleans-Baton Rouge	17,059,000	100.0	**170,590**
Pascagoula, MS	911,247	7.0	**130,178**
Mobile Bar, AL	2,625,500	12.0	**218,792**
Tampa Bay, FL	5,616,423	23.0	**244,192**
Miami, FL - Biscayne Bay	4,421,246	17.0	**260,073**
Port Everglades, FL	4,734,155	20.0	**236,708**
St John Bar Pilots	3,918,878	14.0	**279,920**
Savannah, GA	5,031,420	21.0	**239,591**
Charleston, SC	4,145,680	20.0	**207,284**
Average (excl. Los Angeles)	**$ 170,750,188**	**716.5**	**238,311**

Source: DMA analysis

When charted, the trend in total costs appears to be quite insensitve to the scale of the pilotage operation. Typical costs range between $ 190,000 and $ 290,000 per pilot, but Columbia Bar, Houston and Galtex have costs that are significantly higher. The average cost per pilot is approximately $ 238,000. The highest cost is incurred by the Columbia River Bar pilots, which approaches $ 480,000 per pilot. Some costs vary in large part with compensation, but in the case of Houston its vast service area and need for four large catamaran and mono-hull pilot vessels to carry pilots out to and from ships in convoys creates logistical challenges for the rapid movement of pilots in groups. In the case of Galtex, anchoring and ship bunkering (fueling) activity within Galveston Bay creates very fuel intensive demands for its pilot boats, which must travel between Galveston, Texas City, the anchorage, and the sea buoys. Exhibit IX-2 charts the pattern of the size of pilot associations (number of pilots) and total costs excluding pilot net income.

Figure X-1



Use of the Consumer Price Index as a Basis for Cost Adjustment

Certain estimates use the Consumer Price Index ("CPI") to adjust costs from year to year with consideration of inflation/deflation effects. The CPI indices are commonly used by transportation and logistics companies to adjust general costs other than combustion fuel consumed by ship and vehicle prime movers. My use of the CPI is consistent with both pilot regulation and transportation company practice.

The Florida Investigative Committee Department of Business and Profession Regulation, Pilotage Rate Review Board, in Part 13 of its 2007 report for the Port of Palm Beach makes note of the Review Board's guidelines that "The board may take into consideration the *consumer price index* or any other comparable economic indicator when fixing rates of pilotage; however, because the consumer price index or such other comparable economic indicator is primarily related to net income rather than rates, the Board shall not use it as the sole factor in fixing rates of pilotage".

The State of Louisiana has linked three of its four pilot organizations to a CPI-SU (South Urban) index and makes a rolling average adjustment in target net income for its authorized number of pilots in each organization.

SOURCES RELIED UPON

In the course of preparing this report, various sources were utilized that include the following:

General Sources

1. Pilot organization websites, including St. Johns, Port Everglades, Biscayne, Tampa, Charleston, Savannah, Mobile, Pascagoula, Crescent, NOBRA, Lake Charles, Sabine, Houston, Galveston-Texas, Brazos/Freeport, Aransas Corpus Christi, Hawaii, Columbia River Bar, Los Angeles, San Francisco, Columbia River, and Puget Sound

1. Pilot organization tariffs, available on website, received by facsimile, appearing within port tariffs and regulations, appearing within correspondence
2. "Vessel Entrances and Clearances" data, as provided by the Army Corps of Engineers on its Navigation Systems website through 2009 (latest available)
3. Characteristics of ships, as set forth in the Royal Institute of Naval Architects (London) in their publication "Significant Ships" for years 1993 to 2010 for physical characteristics including length, breadth, depth, draft, gross tonnage, and deadweight. Other references (American Bureau of Shipping, Lloyds Register, individual and typical ships drawn from owner's specifications) used for specific and general particulars as necessary.
4. Various charts, atlases and maps for general guidance and terminal locations
5. "Coastal Pilot" publications, as published by the US Coastal and Geodetic Survey
6. "Waterborne Commerce Statistics" published by the US Army Corps of Engineers Waterborne Commerce Statistics Center and mounted on the WCSC website, through 2009 (latest)
7. Maritime Administration (US Department of Transportation) vessel call data (website)
8. Maritime Administration (US Department of Transportation) cruise ship call data (website)
9. US Coast Guard documented vessels database for pilot boat design particulars
10. US Bureau of Labor Statistics, consumer price indices, including the national urban index (CPI-U).
11. US Bureau of Economic Analysis, per capita income by state (2010), presented by the University of New Mexico
12. "Guide to Port Entry" plans of ports for certain terminal and general locations
13. Press reports on various pilotage groups and issues
14. Review of selected pages of tax code provided by Hugh Larkin, CPA, Principal, Livonia, MI.

Puget Sound Pilots

1. Puget Sound Pilots and Subsidiary, Special-Purpose Consolidated Financial Statements and Independent Auditor's Report (Modified Accrual Basis) For the Years Ended December 31, 2010 and 2009
2. Individual Pilot Expense Calculation 2011 Tariff
3. WAC 363-116-300 Pilotage Rates for Puget Sound Pilotage District

Columbia River Pilots

1. Oregon Board of Maritime Pilots, BP 9, In the Matter of the Petition of the Columbia River Pilots for a Change in Pilotage Rates, Final Order No. 10-01, Issued: May 19, 2010
2. Columbia River Pilots, Supplementary Financial Information, Financial Statements for 2008, 2009

San Francisco Bar Pilots

1. Declaration of John Cindrey, Business Manager of the San Francisco Bar Pilots, March 3, 2011
2. San Francisco Bar Pilots Consolidating Statement of Income and Comprehensive Income

Los Angeles Port Pilots

1. Memorandum of Understanding for Los Angeles Port Pilots, between the City of Los Angeles and the International Longshore Workers Union, Local 68. November 10, 2006 and updated operative July 1, 2010.

Hawaii Port Pilots (HI)

1. Hawaii Pilots Association's Petition Exhibits HPA 1 through HPA 14 Exhibits HPA-T-100 and HPA-T-200 Verification and Certificate of Service, March 16, 2010

Columbia River Bar Pilots (OR)

1. Audited Financial Statements for Year Ended December 31, 2008 for Saddle Mountain, Inc., Columbia River Bar Pilots LLC, and Kapok Administrative Services Corporation.
2. Oregon Pilotage Tariff No. A-10, Effective September 1, 2010
3. Oregon Board of Maritime Pilots, BP-10, Final Order 10-02, May 19, 2010

Brazos/Freeport (TX)

1. IRS Forms 990 for the Brazos Pilots Association, recent years

Galveston Texas City Pilots (TX)

1. Galveston-Texas City Pilots and Galtex Service Corporation, Consolidated Financial Statements and Independent Auditor's Report as of and for the years ended March 31, 2008 and 2007
2. Application for Pilot Rates Increase, September 11, 2009

Houston Pilots (TX)

1. Review of West Gulf Marine Association newsletter , November 26, 2008
2. Houston Port Authority monthly reports, Vessel Arrivals, annuals from 2000 to 2011
3. Conversation with Captain A.J. Gibbs of the Crescent Port Pilots to hear his findings pertaining to Houston Pilot compensation, as learned by Mr. Gary LaGrange, Director of the Port of New Orleans

Lake Charles Pilots (LA)

1. Associated Branch Pilots of the Port of Lake Charles, Consolidated Financial Statements, March 31, 2011
2. Discussions with Mr. Ron Ritter, Galveston-Texas City Port pilots concerning gross and net income and operational aspects (2009 and 2011)

New Orleans and Baton Rouge Steamship Pilots Association Associated Pilots (LA)

1. Statement of Revenues and Expenses, Cash Basis for the Years Ended December 31, 2009 and 2008
2. NOBRA Cost detail sheet of expenses for CY 2009
3. NOBRA Tariff T-24644

Crescent River Port Pilots Association (LA)

1. Letter from Ezell Law Firm, LLC to Larry McNutt, Jr. Administrator Louisiana Pilotage Fee Commission, Baton Rouge, LA re Louisiana Pilotage fee Commission Docket P07-001, November 1, 2010
2. Crescent River Port Pilots' Association, Financial Statements and Schedules, December 31, 2010

Associated Branch Pilots For the Port of New Orleans (LA)

1. Pre-Filed Direct Testimony of Robert Craig Sanders, CPA on Behalf of the Associated Branch Pilots For the Port of New Orleans, November 1, 2010

Pascagoula (MS)

1. Pascagoula Port Authority Berths and Statistics Report for FY10 vs. FY09
2. Port of Pascagoula Tariff, sections 400, 405,410,415 etc.

Mobile (AL)

1. Traiff Effective January 1, 2009 (in effect 2011).

Tampa Bay Pilots (FL)

1. Tampa Bay Port Pilots Association Application for a Change in Rates of Pilotage, Port of Tampa Bay May, 2008
2. Report of the Investigative Committee Department of Business and Professional Regulation Pilotage Rate Review Board Application for Change of Rates and Pilotage at Ports of Tampa Bay
3. Review of State of Florida Department of Business and Professional Regulation Pilot Rate Review Board Notice of Intent to Approve in Part and Deny in Port the Port of Tampa Bay Pilotage Rate Increase Application Filed by the Tampa Bay Pilots Association, dated December 23, 2008

Biscayne Bay Port Pilots (FL)

1. Biscayne Bay Port Pilots Association, State of Florida Application for Change of Rates of Pilotage, October 2008
2. Port of Miami website and its marine statistics

Port Everglades (FL)

1. Port Everglades website and marine statistics

St. Johns Bar Pilot Associations (FL)

1. St. Johns Bar Pilot Association and Subsidiary Consolidated Financial Report for Years Ended December 31, 2008 and 1999
2. St. Johns Bar Pilot Association, State of Florida Application for a Change in rates of Pilotage, 2008
3. St. Johns Bar Pilot Association Agenda of the Pilotage Rate Review Board, 2009
4. Jacksonville Port Authority ("Jaxport") website and its Marine Statistics

Savannah Pilots (GA)

1. Jet Brief No. 380 describing Savannah Pilots boat GEORGIA, 2006
2. Marine Link articles describing Savannah Pilots boat GEORGIA, 2004

Charleston Pilots Association (SC)

1. Charleston Post and Courier articles from June 2008 concerning Charleston Pilots Association
2. Statutory Authority of the Commissioners of Pilotage for the Port of Charleston
3. Charleston Port Pilots website
4. South Carolina Regulations, Section 54-15-various segments, for the Upper Coastal Area, the Lower Coastal Area, and Charleston

IX. QUALIFICATIONS OF DIBNER MARITIME ASSOCIATES LLC

Dibner Maritime Associates LLC ("DMA") is a management consulting firm specializing in service to the maritime industry. DMA assists a wide range of clients in developing effective strategies and operational programs to compete and grow in global and domestic transportation, logistics, and commodity-based marketplaces. DMA was founded by, and its principal continues to be Brent Dibner. He is supported by associates based in the US and Latin America who have formal graduate educations in management, logistics, and ocean systems management as well practical experience and merchant marine officers and managers.

During a 25-year consulting career at Mercer Management Consulting, Inc., Mr. Dibner directed all consulting activities to the maritime industry and served the bulk marine transportation, cruise, materials processing, ship building/repair and bulk logistics industries. Mr. Dibner's clients include many of the world's largest integrated energy companies, leading independent ship owners, shipyards, coastal and inland ship and tug-barge operators and the financial institutions that serve marine transportation industries. DMA is a management consulting firm which provides a range of services to the maritime industry, including ship owners, cargo interests, shipyards, and government agencies (www.dibmar.com). Mr. Dibner founded Dibner Maritime Associates LLC in 2002 and continues to be of counsel to Oliver Wyman Inc., the successor to Mercer Management Consulting.

Mr. Dibner's commercial clients have included: Arco Petroleum, BP Amoco, Caltex (Thailand), Chevron, Citicorp, Clipper Group (Denmark), Conoco, Exxon, Florida Fuels, Lehman Brothers, Leif Hoegh (Norway), Liberty Maritime, Lisnave (Portugal), Maersk Lines (Denmark), Mobil Oil, Moran Towing, Occidental Petroleum, Overseas Shipholding Group, Orient Overseas Container Line (Hong Kong), PDVSA (Venezuela), Pemex (Mexico), Phillips Petroleum, Royal Caribbean Cruise Line, Seacor Holdings, Shell Oil Company, Stolt-Nielsen (chemical tankers) TECO Shipping and Texaco, UBS, Weyerhauser/Westwood Shipping and many others.

Mr. Dibner has also provided consulting services to governments and industry organizations including Intertanko (The International Association of Independent Tanker Owners), the United States Navy, the United States Coast Guard, the American Bureau of Shipping, the American Waterways Operators, the US Maritime Administration, the Royal Navy (UK), the Panama Canal Commission, the American Petroleum Institute, the American Bureau of Shipping, and many industry associations throughout the world. He has testified before the United States Senate, the Federal Maritime Commission, and in various admiralty and civil marine proceedings.

Prior to his consulting career, Mr. Dibner designed merchant and naval ships in the United States, the United Kingdom, and Israel.

Mr. Dibner earned a B.S. in naval architecture and marine engineering from the University of Michigan and an M.B.A. from the Harvard Graduate School of Business Administration. He has served as a trustee, chairman, president and officer and overseer of several educational, historic and philanthropic institutions.

Mr. Dibner testified as an expert on several occasions before the United States Senate, the Federal Maritime Commission, State Regulatory authorities, and various admiralty and civil marine proceedings in federal and state courts.

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BRENT DIBNER

Exhibit F Comparative Pilotage Rates

Comparison under the Existing Tariff:

PILOT GROUP	Large Container	Small Container	Tanker	Bulker
Puget Sound Pilots (81,000 GT Container Ship to Tacoma, Small Container to Seattle, Tanker to Ferndale and Bulker to Tacoma)	$8,248	$2,050	$8,091	$3,469
San Francisco Bar Pilots (Container ships to Oakland, Tanker to Benicia and Bulker to Redwood City)	$8,865	$3,729	$11,481	$7,187
Columbia River and Bar (to Portland)	$19,822	$10,247	$23,662	$12,496
Canadian Pilots (All ships Brotchie to Vancouver)	$8,727	$4,516	$22,862	$5,121

Comparative Costs under the Proposed VEC Tariff:

PILOT GROUP	Large Container	Small Container	Tanker	Bulker
Puget Sound Pilots (81,000 GT Container Ship to Tacoma, Small Container to Seattle, Tanker to Ferndale and Bulker to Tacoma)	$8,474	$2,611	$8,326	$3,954
San Francisco Bar Pilots (Container ships to Oakland, Tanker to Benicia and Bulker to Redwood City)	$8,865	$3,729	$11,481	$7,187
Columbia River and Bar (to Portland)	$19,822	$10,247	$23,662	$12,496
Canadian Pilots (All ships Brotchie to Vancouver)	$8,727	$4,516	$22,862	$5,121

ENTERPRISE RISK MANAGEMENT

The Authority has endorsed an Enterprise Risk Management (ERM) Program.

ERM has been incorporated as part of the Authority's strategy with the intention of 'cultivating a culture of enterprise risk awareness'.

All areas have been incorporated into this Program, including entrepreneur and employee pilots, launches, dispatch and administration, along with the Board and management.

The ERM Committee is chaired by a Board member and includes representation from each of the areas mentioned above. The Committee reports to the Board, meets quarterly and re-evaluates the risk register with a view to identifying new risks and mitigation measures.

The focus for 2011 will continue to ensure the 'high' ranked risks have appropriate mitigation measures in place along with scenario planning, when appropriate.

The results of this Program are summarized in the grid below.

Priority	Risk Title	Risk Rating	Likelihood	Consequence
1	Criminalization of Pilots	HIGH	MEDIUM	EXTREME
2	Recruitment - Coastal Pilots	HIGH	MEDIUM	VERY HIGH
3	Operational Issues Impacting Vessel Movements	HIGH	MEDIUM	VERY HIGH
4	Occupational Health and Safety Issues	HIGH	MEDIUM	VERY HIGH
5	Training - Coastal Pilots	MED	LOW	VERY HIGH
6	Economic and Financial Conditions	MED	LOW	VERY HIGH
7	Information Technology	MED	LOW	VERY HIGH
8	Recruitment and Training - Launch Crew	MED	LOW	HIGH
9	Vessel Under Pilot Conduct Involved in an Accident	MED	LOW	HIGH
10	Financial and Administrative Systems and Processes	MED	LOW	HIGH
11	PPA Launch Involved in an Accident	MED	LOW	HIGH
12	Recruitment and Training - River Pilots	MED	VERY LOW	VERY HIGH
13	Legal and Regulatory	LOW	LOW	MEDIUM
14	Efficiency or Resource Usage	LOW	LOW	MEDIUM
15	Security of Physical Assets	LOW	LOW	MEDIUM
16	Disaster, Emergency and Special Events Planning	LOW	VERY LOW	HIGH
17	Human Resource Management for the PPA	LOW	VERY LOW	HIGH
18	Delay of Vessel due to the PPA	LOW	VERY LOW	MEDIUM
19	Emerging Risks			