

## PORTSMOUTH NAVAL SHIPYARD

**Question: If Portsmouth is closed, would the Navy have adequate industrial capacity to maintain, modernize and repair the fleet?**

**Answer: NO**

**Discussion:** The inconsistency between DoD conclusions on Capacity and the Delegation's is in how DoD calculated Capacity. DoD calculated Total Capacity<sup>1</sup> by soliciting separately for Drydock Capacity<sup>2</sup> and theoretical Building Capacity<sup>3</sup> (backshops). They then simply added the two figures together. The methodology is very specific in the 7 Jan 04 Data Call, for calculating theoretical Drydock and Building capacity. The instructions<sup>4</sup> read, "Capacity is measured on a 40-hour workweek baseline. **Skilled workforce is available/can be obtained**". This resulted in overstatement of Total Capacity, as square footage of buildings and workstations became the measure of backshop capacity, with no Human Capacity constraint.

In a pure manufacturing environment, that approach may have merit. However, in a Naval Shipyard Depot, 85% of the work accomplished is aboard the ships, while in Drydock or at the pier, or in direct support of the ship in dock. If there is no ship in a drydock, or at a pier, the backshops sit idle. The vast majority of our work is "repair", on and off-hull.... not manufacturing. Only about 15% of our total work can be considered manufacturing. Of that quantity, about 10% directly supports repair of components removed from the ships and the remaining 5% can be considered pure manufacturing, for sources other than ships in drydock. Our Commodities are staffed to compliment our drydocked ships, not our backshop physical size. The backshops are only there to house workers', personal tools, lockers, machinery, tooling, equipment, and work areas to perform off-hull repairs to components removed from the ship. Consequently, our backshops are staffed for about 15% of our total workload. Only about 15% of the backshop theoretical capacity should have been included in the "Total Capacity" calculations.<sup>5</sup>

<sup>1</sup> Found in [www.defenselink.mil/brac](http://www.defenselink.mil/brac), then go to Scenario Data Calls, Department of Navy, Redacted Activity Data Calls-Final Certified Answers (Capacity), ZipFile 4 (32.6MB), then add the totals for 5.3.1.D in the following PDF files: Redacted BRAC Capacity Data Call, 7 January, NAVSHIPYD\_AND\_IMF\_PEARL\_HARBOR, HI (Page 66), NAVSHIPYD\_NORFOLK\_VA (Page 75), NAVSHIPYD\_PORTSMOUTH\_NH (Page 115), and NAVSHIPYD\_PUGET\_SOUND, WA (Page 67)

<sup>2</sup> Found in [www.defenselink.mil/brac](http://www.defenselink.mil/brac), then go to Scenario Data Calls, Department of Navy, Redacted Activity Data Calls-Final Certified Answers (Capacity), ZipFile 4 (32.6MB), then add the totals for 5.3.1.C in the following PDF files: Redacted BRAC Capacity Data Call, 7 January, NAVSHIPYD\_AND\_IMF\_PEARL\_HARBOR, HI (Page 65), NAVSHIPYD\_NORFOLK\_VA (Page 73), NAVSHIPYD\_PORTSMOUTH\_NH (Page 114), and NAVSHIPYD\_PUGET\_SOUND, WA (Page 66)

<sup>3</sup> Found in [www.defenselink.mil/brac](http://www.defenselink.mil/brac), then go to Scenario Data Calls, Department of Navy, Redacted Activity Data Calls-Final Certified Answers (Capacity), ZipFile 4 (32.6MB), then add the totals for 5.3.1.B in the following PDF files: Redacted BRAC Capacity Data Call, 7 January, NAVSHIPYD\_AND\_IMF\_PEARL\_HARBOR, HI (Page 63), NAVSHIPYD\_NORFOLK\_VA (Page 72), NAVSHIPYD\_PORTSMOUTH\_NH (Page 112), and NAVSHIPYD\_PUGET\_SOUND, WA (Page 64)

<sup>4</sup> NAVSEA Guidance for 7 Jan 04 CDC; (See attachment (1)).

<sup>5</sup> PNS assessment of workload distribution between Backshops and Drydocks

We have created “thermometer graphs” to analyze the certified 7 Jan 04 Data Call information for Total Capacity (section 5.3.1.D), Required Capacity (section 5.3.1.A)<sup>6</sup> and we have added Workforce Capacity<sup>7</sup> data (actual average staffing levels, by Commodity, from Oct 04 through Apr 05). Use the sum of the 4 shipyards average workforce then multiply by 2008 hours per year will equal yearly capacity data. The capacity for the 3 shipyards are calculated the same as the 4 shipyards; however, without Portsmouth). We also superimposed a heavy black line<sup>8</sup> on the Total Capacity portion of our graphs to illustrate how much of the Total Capacity is comprised of the over-stated backshop element. To measure building and workstation square footages and use those figures to assess Total Capacity is fundamentally incorrect.

The only exception to the above discussion is the Inside Machine Shop, where 99%<sup>9</sup> of their work is performed inside the building. It is still true that 85% of Inside Machine Shop work is directly repairing components removed from the ship, and the remaining 15% is pure manufacturing. Like all Commodities/Trades, they are staffed to support waterfront drydock repair work, and their capacity is constrained by people, not building square footage or numbers of machines. Because the 7 Jan 04 Data Call calculated capacity based on building square footage and workstations, the heavy black line, on this graph is at the top of the Total Capacity column. This Commodity’s capacity is also overstated as we do not man every workstation, yet we measured each. It is like your local gas station having a tire-changing machine. They don’t man that workstation, but you are sure glad they have the capability when you need it.

Without Portsmouth, DON will not be able to maintain adequate numbers of skilled government workers to perform the scheduled repair work. Or more importantly, activate personnel to support an event of tragic proportions (e.g., SAN FRANCISCO hitting an uncharted sea mount, bombing of the COLE, sending welders and shipfitters to Kuwait to armor plate Army vehicles, etc). Naval Shipyard workers provide our nation the competitive, strike-free, force-to-travel anywhere, non-profit motivated artisans that we need UNDER ANY CIRCUMSTANCE.

The chart below plots the 7 Jan 04 Data Call certified data. The middle thermometer shows a shortage of ~4000<sup>10</sup> workers (the size of a small shipyard), if the workforce of the remaining three shipyards works 15% overtime. The thermometer to the right,

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<sup>6</sup> Found in [www.defenselink.mil/brac](http://www.defenselink.mil/brac), then go to Scenario Data Calls, Department of Navy, Redacted Activity Data Calls-Final Certified Answers (Capacity), ZipFile 4 (32.6MB), then add the totals for 5.3.1.A in the following PDF files: Redacted BRAC Capacity Data Call, 7 January, NAVSHIPYD\_AND\_IMF\_PEARL\_HARBOR\_HI (Page 63), NAVSHIPYD\_NORFOLK\_VA (Page 72), NAVSHIPYD\_PORTSMOUTH\_NH (Page 111), and NAVSHIPYD\_PUGET\_SOUND\_WA (Page 63)

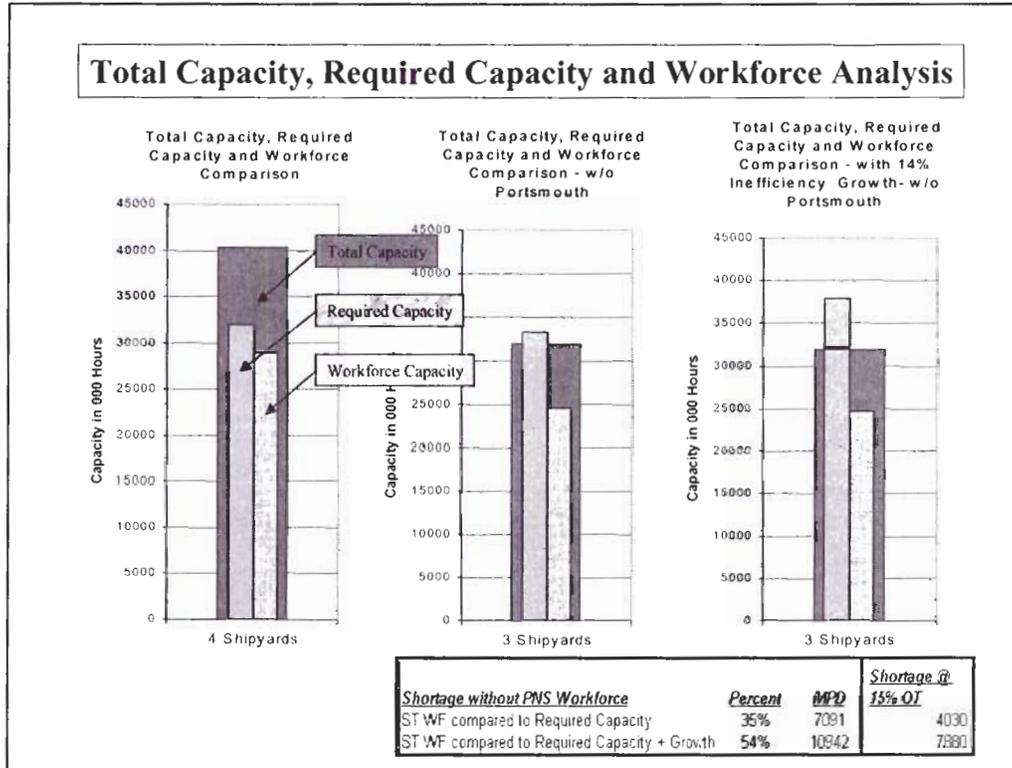
<sup>7</sup> Naval Shipyard Available Force Data (Avg. Oct 04 – Feb 05); found in [www.nde.navy.mil](http://www.nde.navy.mil), then go to WEBWARR, workforce, and use available force data

<sup>8</sup> (Same as footnote 3)

<sup>9</sup> PNS assessment

<sup>10</sup> Calculated workforce capacity (WF) (used 14% leave, 70% direct labor index, 15% overtime, and 2008 work hours per year) compared to certified Required Capacity Data, Section 5.3.1.A of 7 Jan 04 (same as footnote 6 above)

representing the most probable Required Capacity analysis, shows a shortage of ~7900<sup>11</sup> workers, when working the same 15% overtime. Without the Portsmouth workforce, the remaining three shipyards would have to work ~54%<sup>12</sup> overtime to achieve the Required Capacity of the right thermometer.



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DoN reports excess in 27 of 35 commodities<sup>14</sup>. This is based on data collected for FY03, 04 and 05, and reported to our Delegation in a letter from DOD, dated 13 Jul 05, see attached word document file (Comments\_Excess\_Capacity\_DoD\_Response\_7-17-05.doc). However, throughout these same years, the naval shipyards have experienced

<sup>11</sup> (Same WF calculation as above) Compared WF capacity to Required Capacity +14% growth. Note: Required Capacity, Section 5.3.1.A, was escalated by 4% average across all 4 shipyards to accommodate some growth. We continued to use the 14% historical growth as a conservative compensation for inefficiency of moving work to less efficient yards.

<sup>12</sup> Used the same formula as footnote 10 and 11, but incremented Overtime to zero out the equation (no excess or shortage with ~54% OT).

<sup>13</sup> Total Capacity = (See footnote 1)

Required Capacity = (See footnote 6)

Shop Workload Line = (See footnote 3)

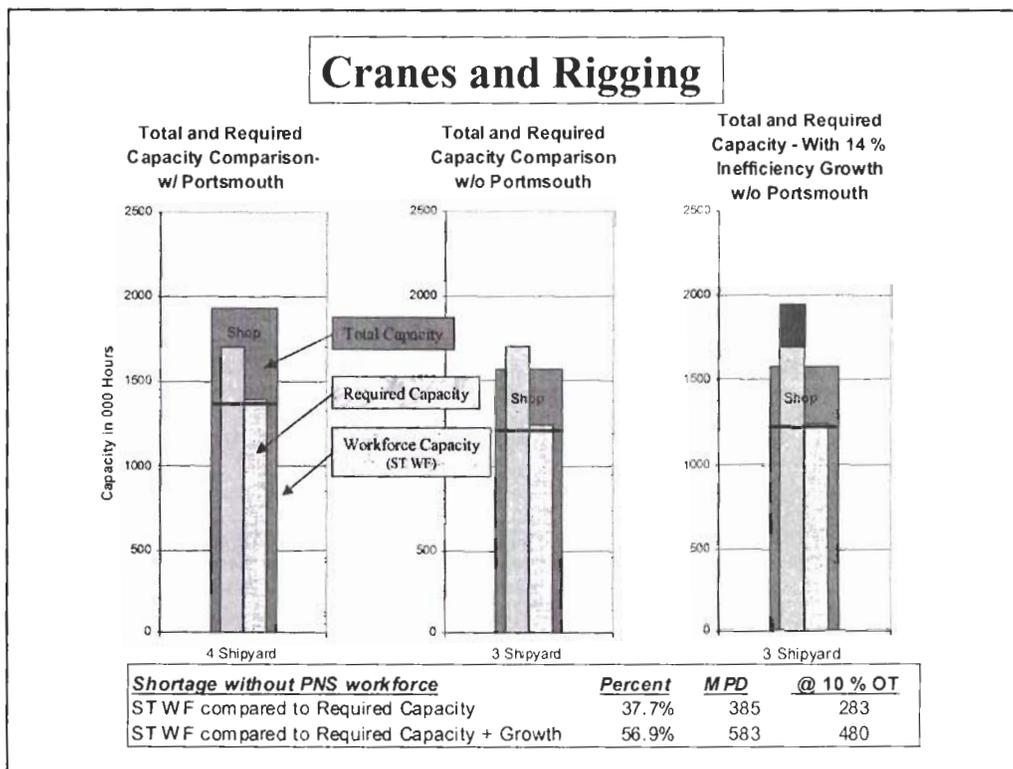
Workforce Capacity = Average Available workforce (Same as footnote 7)

Shortage Calculations = Compared straight-time workforce capacity to certified Required Capacity and Required Capacity + 14% Growth to determine percentage short and people per day short, with no overtime and 15% overtime calculations.

<sup>14</sup> DoD Response to Senator Gregg Inquiry dated 13 July 05

**significant** shortfalls in most of the very commodities that DON reports to be in excess<sup>15</sup>. These resource shortfalls have caused delays and cost overruns on ships in at least two shipyards (e.g., SSN 759 DMP at Puget and SSN 715 ERO in Pearl)<sup>16</sup>. Additionally, the resource shortfalls continue and are causing lengthy extensions to the planned durations for ships currently in execution (e.g., SSN 762 DMP at Puget and SSN 698 ERO at Pearl)<sup>17</sup>.

The charts on the ensuing pages are “thermometer graphs” for 11 of Navy’s most critical Commodities (Trade Skills). These 11 Trades perform about 85%<sup>18</sup> of the productive work during major depot repair events. Ten of these graphs illustrate shortages when comparing actual Workforce Capacity to Required Capacity. The Electronics trade does show slight excess, but this trade works interchangeably with our Electricians. The Electronics overage will accommodate about 15% of the Electrician shortage, leaving the Electricians short by some 230 workers per day.



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<sup>15</sup> Corporate Production Resource Team (CPRT) Quarterly Executive Summaries, past two years; (See attachment (2))

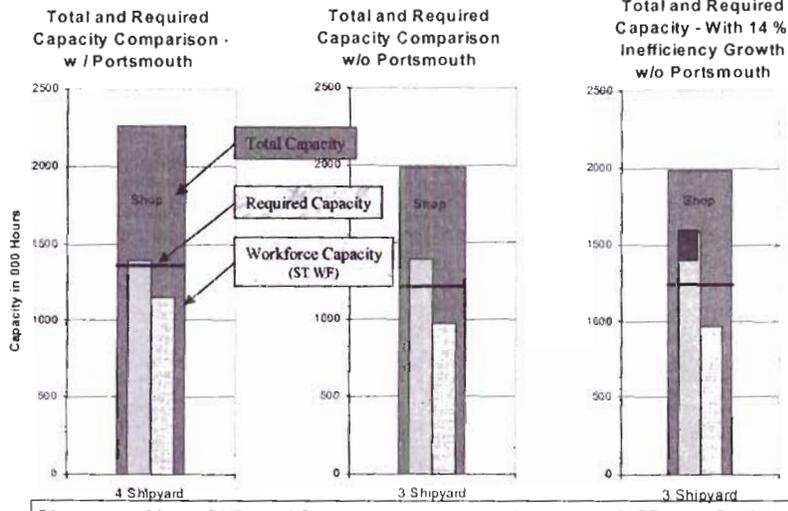
<sup>16</sup> June 05 Naval Shipyard WARR information; same as footnote 7 except use total shipyard report, resources per day data instead of “workforce” and compare current start/complete dates to notional duration

<sup>17</sup> June 05 Naval Shipyard WARR; same as footnote 7 except use total shipyard, resources per day data instead of “workforce” and compare current start/complete dates to notional duration

<sup>18</sup> CPRT statistic (See attachment (2)), based on study done by CPRT in Jun 1999.

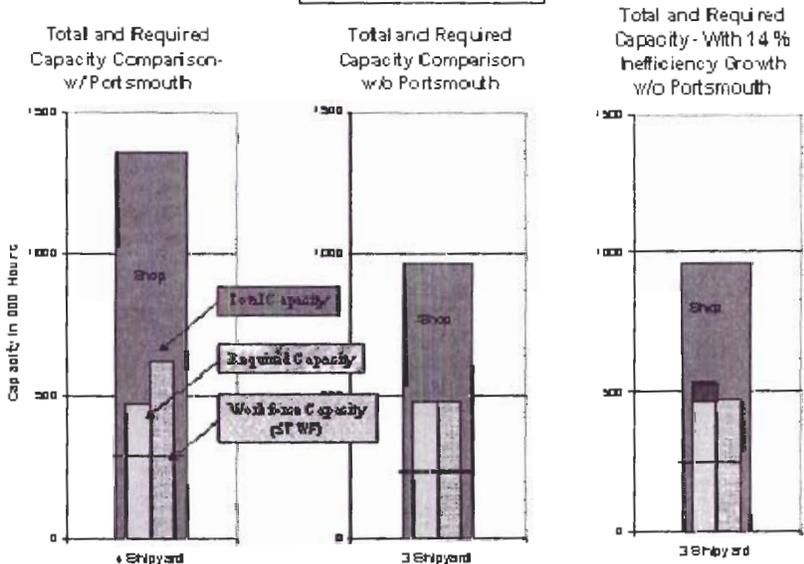
<sup>19</sup> All Commodity/Trade Thermometer Graphs calculations were based on working ONLY 10% Overtime. NAVSEA goal for overtime for several years.

## Electrical



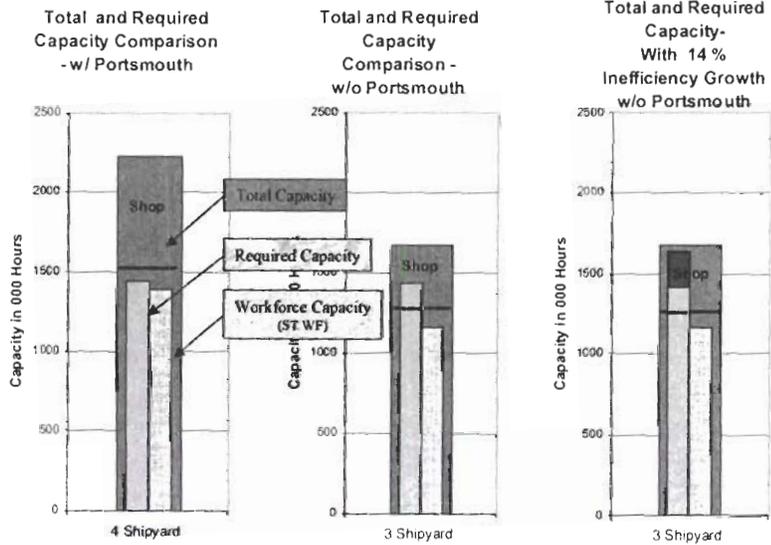
<i>Shortage without PNS workforce</i>			
	<i>Percent</i>	<i>MPD</i>	<i>@ 10 % OT</i>
ST WF compared to Required Capacity	43.3%	348	268
ST WF compared to Required Capacity + Growth	63.4%	509	429

## Electronics



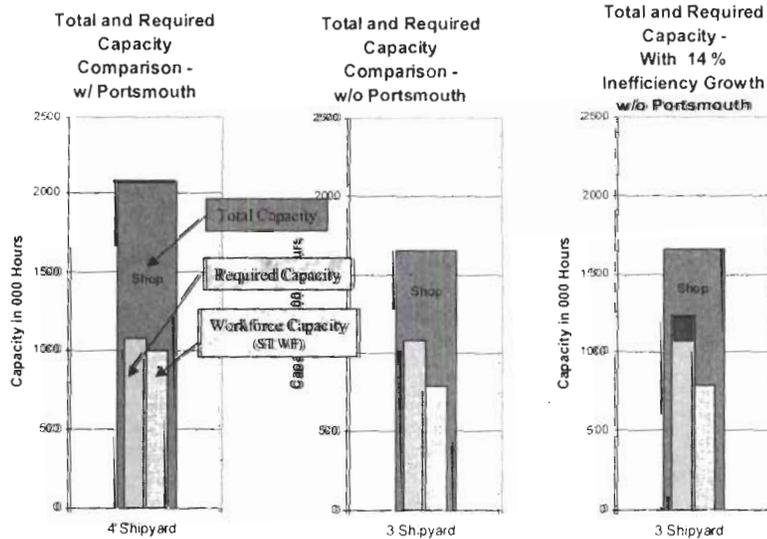
<i>Shortage without PNS workforce</i>			
	<i>Percent</i>	<i>MPD</i>	<i>@ 10 % OT</i>
ST WF compared to Required Capacity	-0.5%	-2	-41
ST WF compared to Required Capacity + Growth	13.5%	63	14

## Heavy Fabrication - Shipfitting



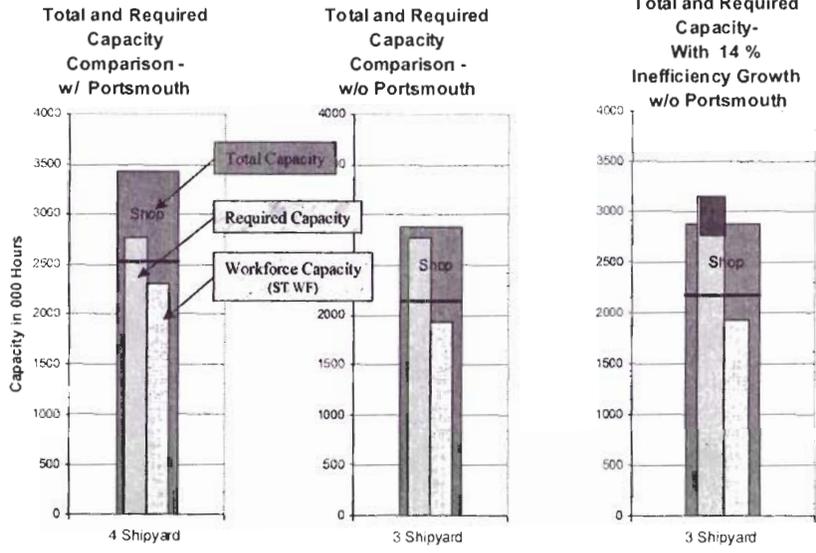
<i>Shortage without PNS workforce</i>		<i>Percent</i>	<i>MPD</i>	<i>@ 10 % OT</i>
ST WF compared to Required Capacity		23.4%	225	129
ST WF compared to Required Capacity + Growth		40.7%	391	295

## Inside Machine



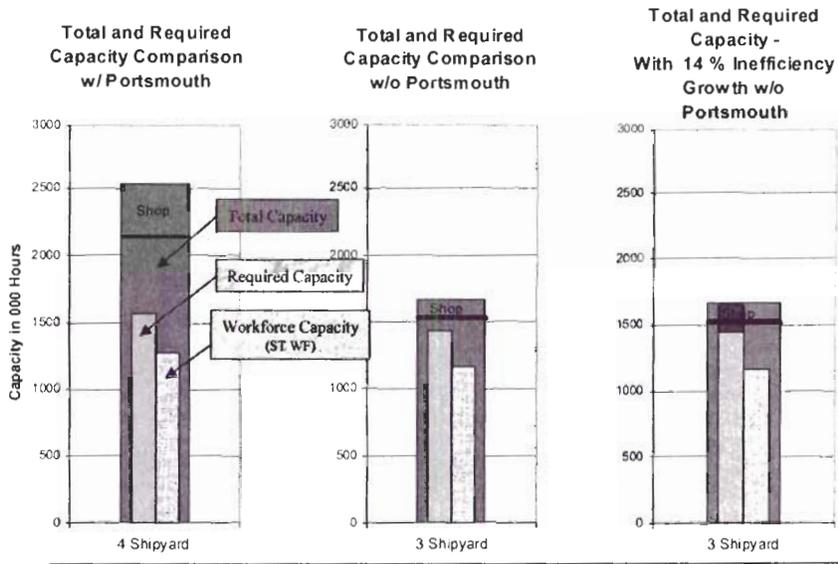
<i>Shortage without PNS workforce</i>		<i>Percent</i>	<i>MPD</i>	<i>@ 10 % OT</i>
ST WF compared to Required Capacity		36.0%	236	170
ST WF compared to Required Capacity + Growth		55.1%	360	295

## Marine (Outside) Machinist



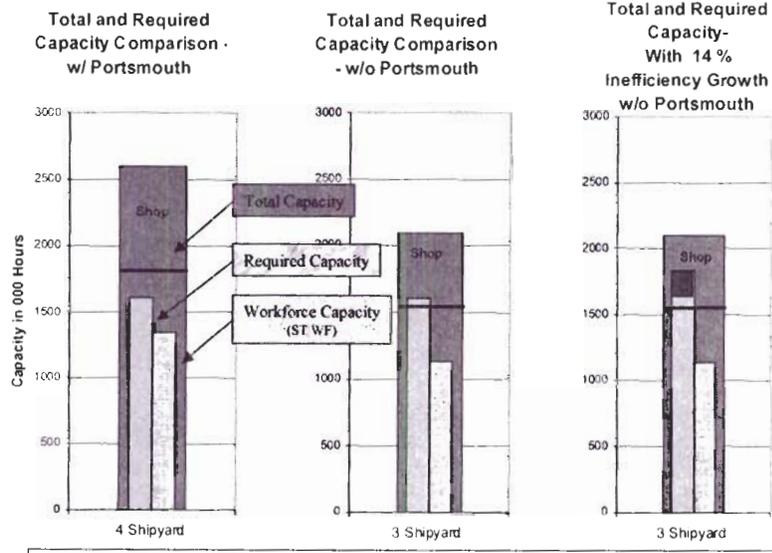
<u>Shortage without PNS workforce</u>		<u>Percent</u>	<u>MPD</u>	<u>@ 10 % OT</u>
ST WF compared to Required Capacity		43.1%	688	528
ST WF compared to Required Capacity + Growth		63.1%	1008	848

## Paint



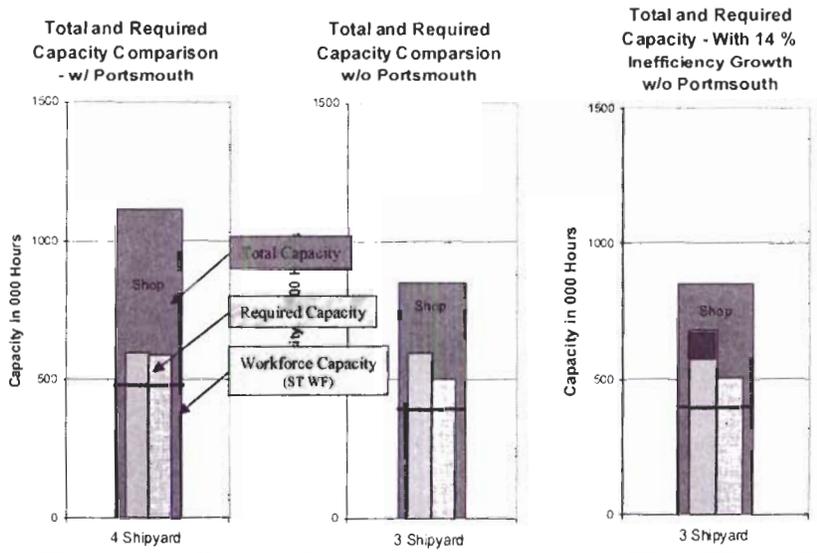
<u>Shortage without PNS workforce</u>		<u>Percent</u>	<u>MPD</u>	<u>@ 10 % OT</u>
ST WF compared to Required Capacity		75.3%	557	483
ST WF compared to Required Capacity + Growth		99.8%	738	664

## Piping



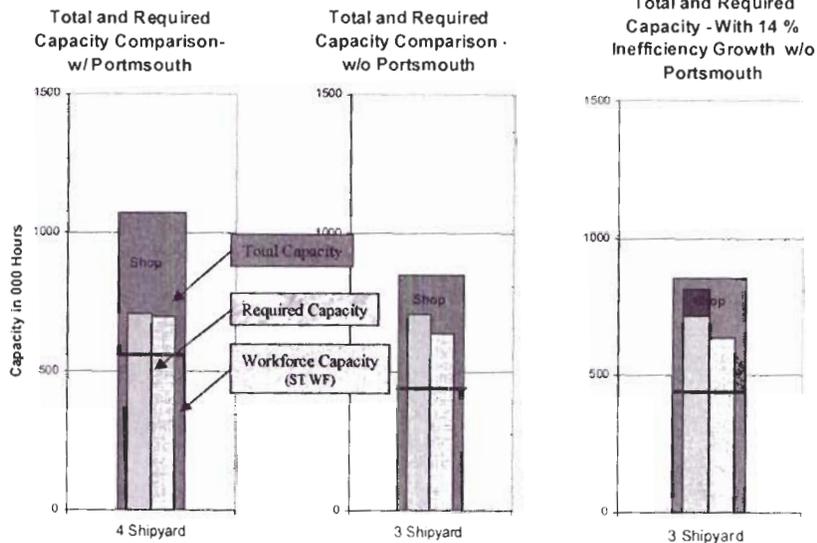
<b>Shortage without PNS workforce</b>		<b>Percent</b>	<b>MPD</b>	<b>@ 10 % OT</b>
ST WF compared to Required Capacity		41.5%	390	296
ST WF compared to Required Capacity + Growth		61.3%	576	482

## Sheetmetal



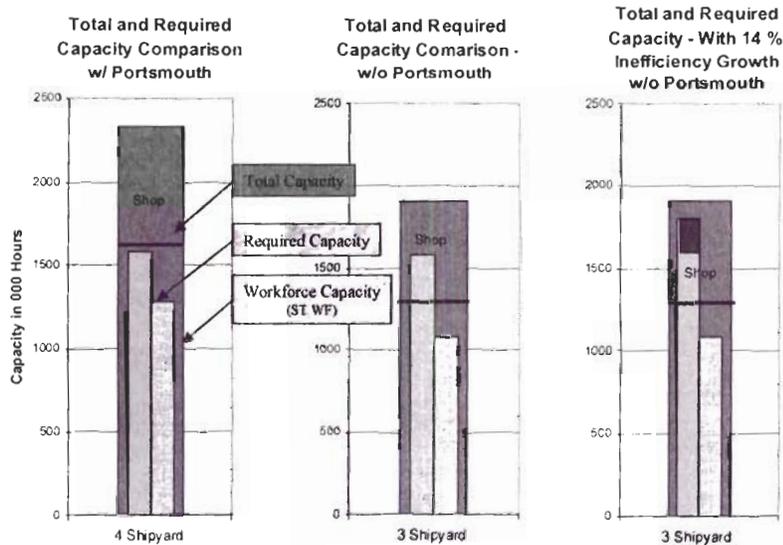
<b>Shortage without PNS workforce</b>		<b>Percent</b>	<b>MPD</b>	<b>@ 10 % OT</b>
ST WF compared to Required Capacity		18.7%	77	36
ST WF compared to Required Capacity + Growth		35.3%	146	105

# Shipwright



<i>Shortage without PNS workforce</i>		<i>Percent</i>	<i>MPD</i>	<i>@ 10 % OT</i>
ST WF compared to Required Capacity		11.5%	61	8
ST WF compared to Required Capacity + Growth		27.2%	143	90

# Welding



<i>Shortage without PNS workforce</i>		<i>Percent</i>	<i>MPD</i>	<i>@ 10 % OT</i>
ST WF compared to Required Capacity		46.4%	414	324
ST WF compared to Required Capacity + Growth		66.8%	597	507

The charts above graphically depict a personnel shortage of ~2500<sup>20</sup> workers when we analyze only 11 of the 27 Commodities reported in excess by DoD. The Radiological Monitoring Commodity, although not analyzed, has been running 40 – 60% short of personnel for more than a year. This includes our two nuclear construction yards, Northrop Grumman Newport News and General Dynamics Electric Boat.

An example of how the DoD methodology grossly overstated Total Capacity can be found with the Inside Machine Data for Portsmouth. Section 5.3.1.D<sup>21</sup> reports the Portsmouth Total Capacity for this Commodity at 423,700 hours. The hours can be reduced to mandays of effort (one mechanic working for one – eight hour day), by dividing by 8, which equates to 52,962 mandays capacity. The straight time workforce capacity<sup>22</sup> is 212,300 hours, or 26,538 mandays, based on staffing data. This Trade will actually accomplish ~ 28,969<sup>23</sup> mandays of capacity this year, by using ~ 9% Overtime. How can Navy ignore the fact that their Total Capacity conclusions are overstated by ~83%<sup>24</sup> from what can actually be performed by this Commodity?

Navy persists in believing that the workforce is transferable and/or replaceable. It is true that any industry can hire personnel. You have heard from Navy's experts, that it takes six to ten years to develop requisite skills and knowledge for our most complex tasks. When we assess our ability to reconstitute a workforce without the Portsmouth artisans, we must take age demographics into account. About 38%<sup>25</sup> of the Naval Shipyard Production workforce is over 50 years old. This statistic is consistent at the shipyard level, with or without Portsmouth data included, and across shipyards. The total Naval Shipyard workforce is ~ 24,000<sup>26</sup> employees. Without Portsmouth, this workforce shrinks to ~ 20,000. The remaining infrastructure cannot support the training, or absorb the inefficiency and cost if 7600 workers (38%) retire and need replacement over the next five years, coupled with reconstitution of the 3600 Portsmouth workers unlikely to relocate.

This equates to nearly 50% replacement of our skilled engineers and artisans over the next five years. The problem is significant, with Portsmouth, but unmanageable if we were to lose any of the four Naval Shipyards.

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<sup>20</sup> Summation of Shortages on Graphs, comparing Required Quantity to WF working 10% Overtime. Summation of shortages against Required Quantity + Growth, working 10% Overtime, is **4209**.

<sup>21</sup> (Same as footnote 1)

<sup>22</sup> (Same as footnote 7)

<sup>23</sup> June 05 Naval Shipyard WARR; (same as footnote (7)) except use total shipyard, resources per day data, select Portsmouth, then select Inside Machine Shop, then layer cake

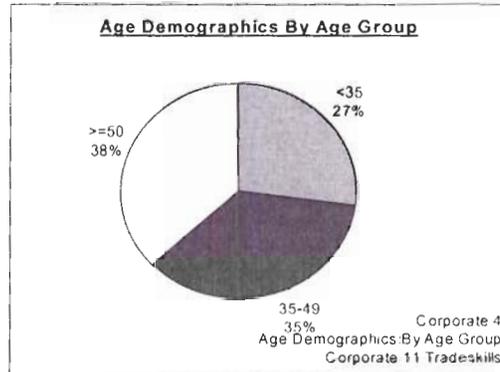
<sup>24</sup> Difference between certified Section 5.3.1.D (See footnote (1)) and WF Capacity (See footnote 7))

<sup>25</sup> CPRT Demographic Data from Jun 05 Meeting Metrics (See attachment (3))

<sup>26</sup> June 05 Naval Shipyard WARR data (actual staffing between 24,000 and 25,000); (Same as footnote (7))

## Naval Shipyard Production Age Demographics (11 Critical Trade Commodities)

Age Distribution		
<35	35-49	>=50
2568	3331	3490
27%	35%	37%



	Corporate 4								
	18-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+
PNSY	168	154	105	107	178	281	293	223	95
PSNSY	308	326	321	317	392	537	657	382	169
PHNSY	123	240	185	123	81	128	268	201	77
NNSY	253	231	154	208	441	538	594	385	146

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### Conclusion:

Clearly by measuring building and potential workstation square footages and assuming they are directly additive to drydock capacity has created a woefully inadequate assessment of Navy's Industrial Capacity. The methodology used by DoD resulted in a **calculated excess capacity of 3565<sup>28</sup> people/Commodities** (section 5.3.1D - 5.3.1A data), while at the same time the Corporation is **actually short 2186<sup>29</sup> people/Commodities** (section 5.3.1.A – WF capacity). Human Capacity must be included in any discussion or analysis of Capacity, but was omitted from the DoD methodology. The Navy cannot perform planned maintenance without the Workforce and Drydocks of all four Naval Shipyards.

This information is certified to be accurate to the best of my knowledge, Earl R Donnell Jr .

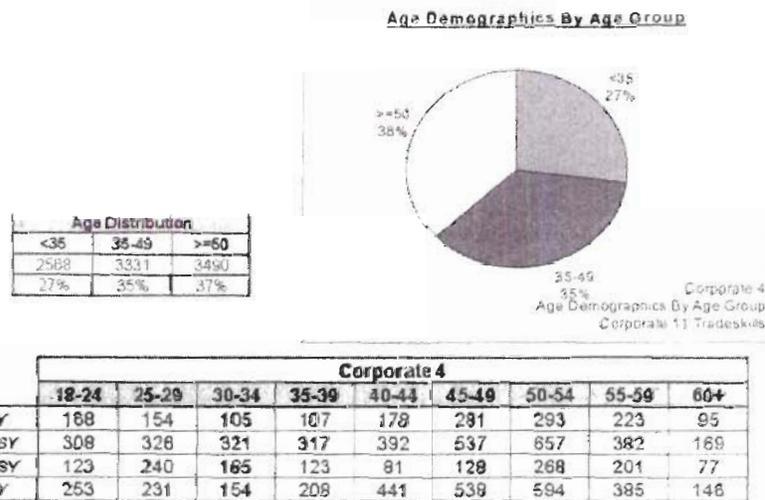
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<sup>27</sup> CPRT Jun 05 Meeting Metrics (See attachment (3)), Demographic data supplied to CPRT by each Naval Shipyard for development of these charts.

<sup>28</sup> Calculation using Certified 7 Jan 04 CDC data, converted from (000) hours to direct workers per day (does NOT include any adjustments for Overtime, Overhead, or Leave). (See footnote (1) minus footnote (6) divided by 250 production days and then divided by 8 hours per day to equal resources per day)

<sup>29</sup> Calculated direct workers per day shortage (does NOT include any adjustments for Overtime, Overhead, or Leave). (See footnote (6) minus footnote (7) divided by 250 production days and then divided by 8 hours per day to equal resources per day)

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*Earl R. Donnell Jr.*

This information is certified to be accurate to the best of my knowledge, Earl R. Donnell Jr.

//s/

<sup>27</sup> CPRT Jun 05 Meeting Metrics (See attachment (3)), Demographic data supplied to CPRT by each Naval Shipyard for development of these charts.

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<sup>29</sup> Calculated direct workers per day shortage (does NOT include any adjustments for Overtime, Overhead, or Leave). (See footnote (6) minus footnote (7) divided by 250 production days and then divided by 8 hours per day to equal resources per day)

## Naval Shipyard BRAC 2005 Decision Document for Use in Capacity Questions

*This document's intent is to provide collective guidance for the Naval Shipyards (NSYs) to use in addressing related 2005 BRAC questions, scenarios, etc. Its contents reflect concurrence from all Naval Shipyards and will allow historical tracking of the BRAC Data Call and how questions' response logic should be built. For Section 5, these are the only questions that should be answered to represent Ship Maintenance Capacity in the NSYs.*

### NAVSEA BRAC Guidance for Naval Shipyards for Use in Answering Data Ca #1

#### 5.3.1.A (DoD522) – Required Capacity Index for ship maintenance operations.

##### **BRAC Guidance Assumptions:**

- Enter one number for the sum of the ship commodity groups: Aircraft Carrier, Submarines, and Other Ships.
- Express in direct labor hours (000) for FY03, 04, 05, and 09.
- Limit changes to those approved in FY04 or prior appropriations.
- Calculate in accordance w/DoD Depot Maintenance Capacity and Utilization Handbook, DoD 4151.18
  - Sect 5.5 (p.30). Required Capacity Index = Utilized Capacity (including non-core) + Reserve Capacity (note – if Req'd Capacity > Total Capacity, then report Total as Req'd)

**NAVSEA Guidance:** Required capacity equals that amount of manhours required by the Navy for that Depot. This will be calculated based on the WARR forecast through 2009 with a factor to indicate that amount of work normally expected to materialize during the execution year. The total workload shall not be greater than the workload in 5.3.3.A plus a sustained overtime of 20%.

#### 5.3.1.B (DoD523) – Maximum Shop Capacity

##### **BRAC Guidance Assumptions:**

- Calculate in accordance with DoD Handbook using work position count method.
- All work positions not exclusively required to support waterfront or drydock workload (e.g., lay down areas, mock up facilities, nuclear component repair, etc.).
- No additional MCON to that already funded through FY04 appropriations.
- Capacity measured on 40-hour workweek baseline.
- Skilled workforce is available/can be obtained.
- Existing work continues to be performed.
- Support equipment/workstations come with transferred workload.
- Underutilized facilities/space can only be calculated once for an optimal work mix.
- Enter one number for the sum of the ship commodity groups: Aircraft Carrier, Submarines, and Other Ships.
- Express in direct labor hours (000) for FY03, 04, 05, and 09.
- Limit changes to those approved in FY04 or prior appropriations.

**NAVSEA Guidance:** Maximum shop capacity is the capacity calculated from the work position count. NSYs do not have more shop capacity than existing covered shop work positions.

### 5.3.1.C (DoD524) – Maximum Drydock Capacity

#### BRAC Guidance Assumptions:

- No additional MCON to that already funded through FY04 appropriations
- Capacity measured on 40-hour workweek baseline.
- Skilled workforce is available/can be obtained
- Existing work continues to be performed
- Support equipment/workstations come with transferred workload
- Underutilized facilities/space can only be calculated once for an optimal work mix
- Enter one number for the sum of the ship commodity groups: Aircraft Carrier, Submarines, and Other Ships
- Express in direct labor hours (000) for FY03, 04, 05, and 09.
- Limit changes to those approved in FY04 or prior appropriations
  - o Waterfront Factor (portion of total workload that is not accomplished in shops; e.g. – shipboard, pier side, or in drydock; actual data based on historical average) =  $1 - (\text{shop work}/\text{total work})$  where shop work is all work defined by an F or H phase
  - o 40hr Workweek Factor (portion of total workload accomplished during 40 hour day shift); actual data based on historical average =  $\text{Day shift straight time}/\text{Tot. Workload}$

**NAVSEA Guidance: Maximum drydock capacity would be the DD utilization index (per the handbook) minus that portion of the DD utilization index that is physically accomplished in the shop, plus field teamwork. The Naval Shipyards will use Field team capacity to represent that off yard work. (only PNS added). This allows the Shipyards to add capacity for IMF and other waterfront work that is not represented by the drydock constraint. The Naval Shipyards are responsible for figuring out how much of the DD utilization index is accomplished in the shop. Allocating the DLHs to commodity groups will have to be determined by the NSY. An amount of service shop capability is included in the DD Index; each of the Naval Shipyards is responsible to provide tracking of what logic was used to allocate Drydock Capacity Index to Ship Capacity.**

### 5.3.1.D (DoD525) – Total Capacity Index for ship maintenance operations

#### BRAC Guidance Assumptions:

- Enter one number for the sum of the ship commodity groups: Aircraft Carrier, Submarines, and Other Ships.
- Express in direct labor hours (000) for FY03, 04, 05, and 09.
- Limit changes to those approved in FY04 or prior appropriations.
- Calculate in accordance w/DoD Depot Maintenance Capacity and Utilization Handbook, DoD 4151.18
  - o 3.7 (p.17): Total Capacity Index = Dry Dock Throughput Index + Output Shop Total Capacity Index
  - o 3.7 (p.17): Output Shop is repairable work not related to ships being overhauled in the SY; work assigned by customers other than Fleet and NAVSEA, primarily in support of Navy Supply System.

**NAVSEA Guidance: Total capacity should be Drydock capacity (5.3.1.C) plus total shop capacity (5.3.1.B).**

**5.3.3.A (DoD526) – Total funded/programmed workload for ship maintenance operations.**

**BRAC Guidance Assumptions:**

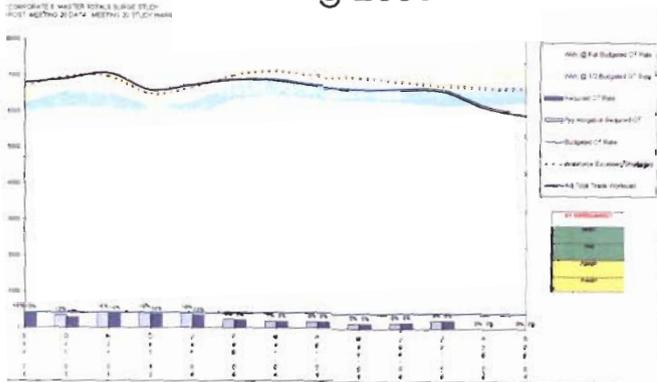
- Enter one number for the sum of the ship commodity groups: Aircraft Carrier, Submarines, and Other Ships.
- Express in direct labor hours (000) for FY03, 04, 05, and 09.
- Limit changes to those approved in FY04 or prior appropriations.

**NAVSEA Guidance:** This is part of the WARR annual requirement. NAVSEA 04X2A will provide this number based on the 2009 workload forecast. The WARR is the DLH funded workload. It does not assume how the NSY will accomplish that funded work. POM 06 WARR Rev 5 will be used as the baseline workload data for these BRAC calculations.

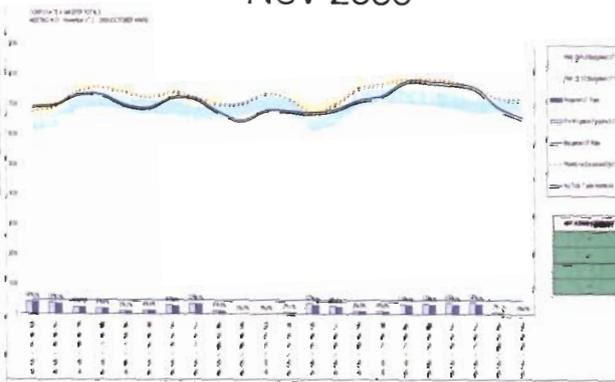
**Other NAVSEA Requirements/Thoughts:**

- a. The Naval Shipyards normally plan to use multiple shifts and OT to execute the work within the available workforce/skills. NAVSEA 04X2A will determine the number of workforce needed to accomplish the work without OT and Shifts. This may be a number we will keep separate and used if needed.
- b. Although we are only going to report capacity as indicated above, each NSY must keep track of how all covered space is allocated (excess, drydock, output shop, etc.). This information may be required when answering military value, scenarios, or other related BRAC questions.
- c. If there is a requirement to identify excess shop capacity, it would be the difference between maximum shop capacity and amount used by the waterfront is the excess shop capacity.

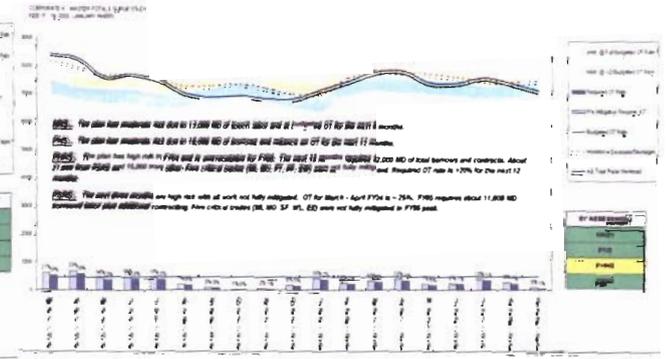
Aug 2003



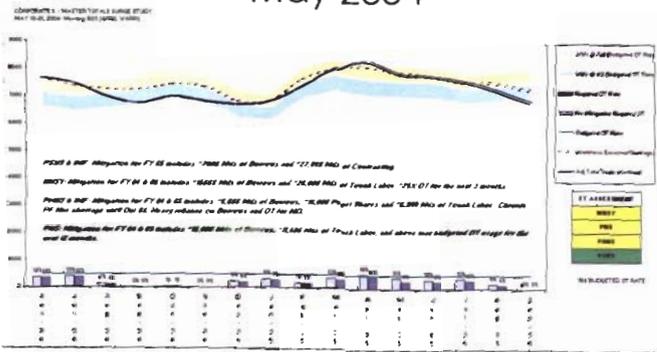
Nov 2003



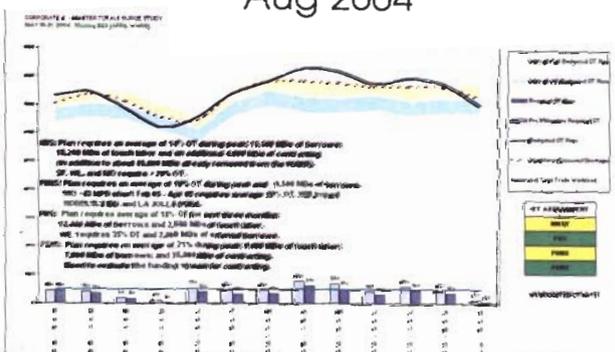
Feb 2004



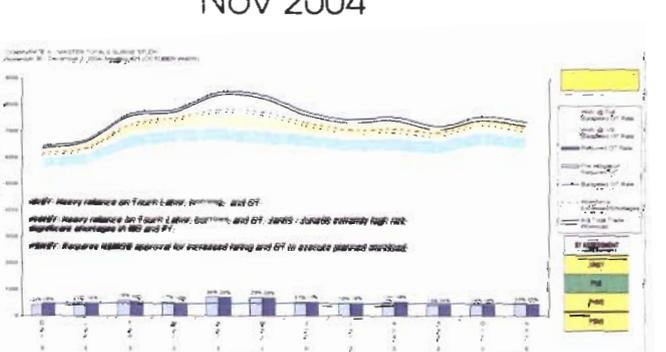
May 2004



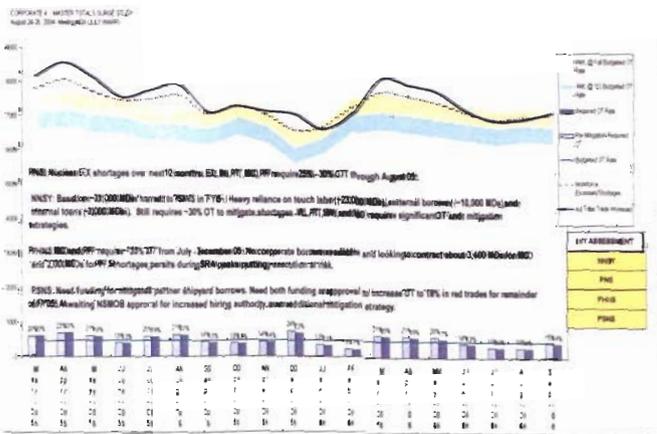
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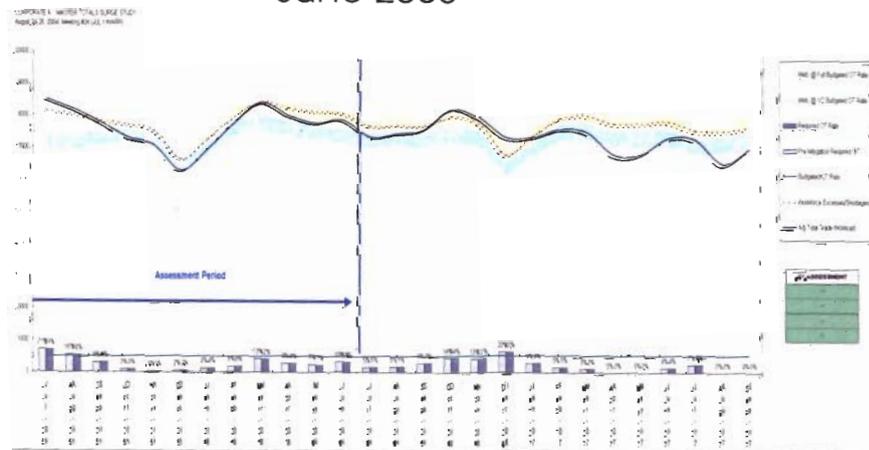
Nov 2004



Feb 2005

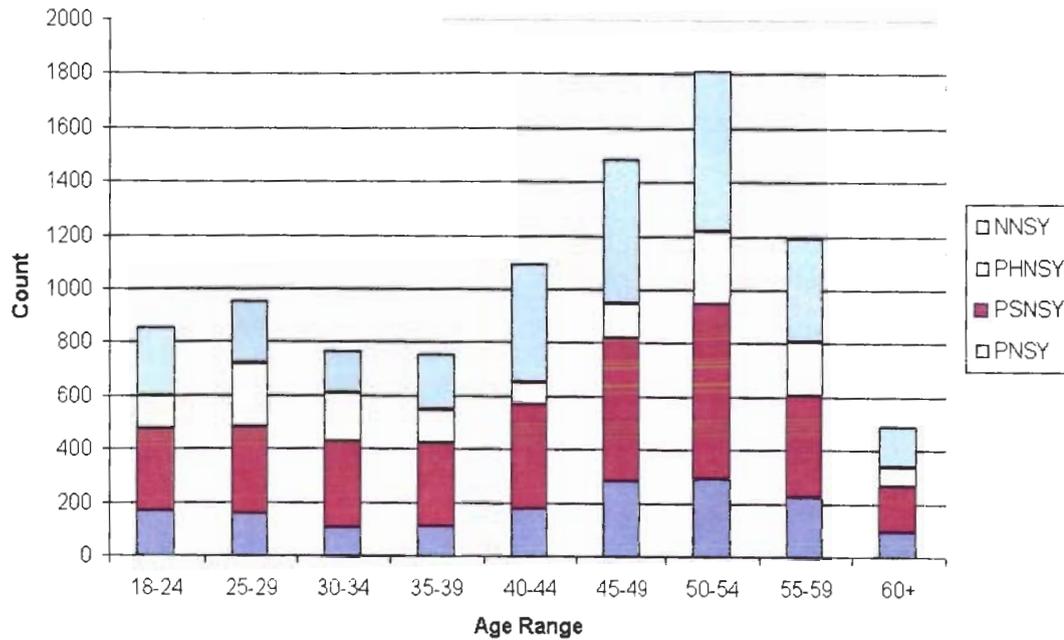


June 2005

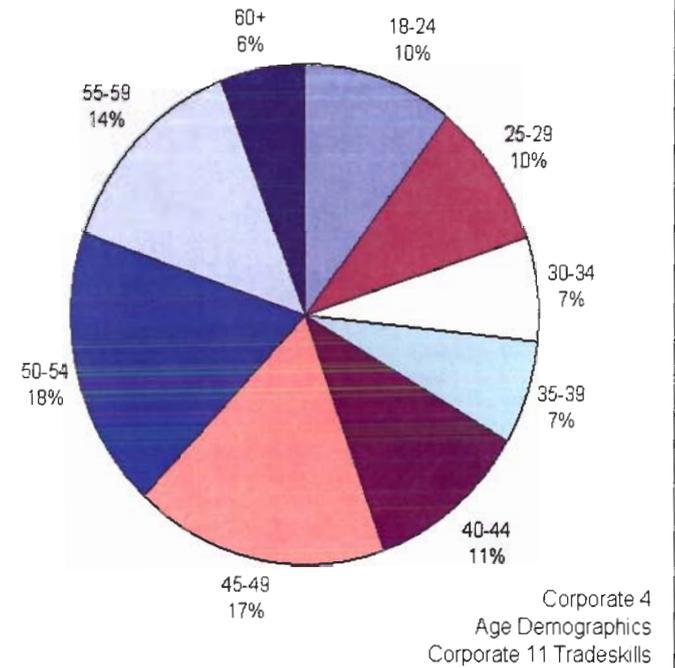




**Corporate 4 - Age Demographics  
Total Shipyards**



**Age Demographics By Percentage**



**Corporate 4**

	18-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+
<i>PNSY</i>	168	154	105	107	178	281	293	223	95
<i>PSNSY</i>	308	326	321	317	392	537	657	382	169
<i>PHNSY</i>	123	240	185	123	81	128	268	201	77
<i>NNSY</i>	253	231	154	208	441	538	594	385	146

**Age Distribution**

<35	35-49	>=50
2568	3331	3490
27%	35%	37%

**Age Demographics By Age Group**

