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# Base Realignment and Closure

Charleston, SC  
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## Executive Summary

### NAVFAC – Southern Division (Charleston) – Maintaining military value, while improving mission effectiveness and maximizing cost effectiveness through exercise of alternatives not yet assessed

#### Rationale

- Cost effective solutions in Charleston were not considered in the BRAC analysis, even though an additional cost savings of \$64M is available through exercise of an option suggested by other BRAC actions.
- Geographic dispersal of NAVFAC-Southern Division's mission is unique – unlike other Divisions where bases at Regional Centers represent the core of their responsibility – demanding aggregation of duties to compensate for shifts in workload.
- The BRAC cost analysis of NAVFAC-Southern Division is overshadowed by assumed magnitude of the closure of the components in Philadelphia.
- The personnel savings claimed in the BRAC scenario are savings that will be realized in the NAVFAC Transformation through alignment and consolidation, and are not dependent on collocation.
- Military Value in the BRAC analysis is heavily weighted by collocation. The assumption was that collocation means more effective and efficient mission accomplishment. This is counter to recent experience.

#### Considerations for BRAC Commission and Staff evaluation of DoD recommendation

- Cost of operations, manpower implications and infrastructure availability advantages of Charleston over Jacksonville
- NAVFAC-Southern Division can easily relocate to nearby DFAS facilities (recommended for closure by other BRAC actions) saving \$64M relative to relocation of the mission to Jacksonville, Great Lakes and Norfolk. The facility is optimally sized for NAVFAC-Southern Division, has 46 years remaining on a one dollar per year lease and should have been assessed in the BRAC process.
- Other leased space options are available to NAVFAC-Southern Division if DFAS facilities were not available, saving \$41M.
- Military Value Advantages of Charleston over Jacksonville
- Keeping the NAVFAC-Southern Division mission in its current aggregated form allows for load leveling over its assigned 26 states. Since less than 10% of their mission supports Jacksonville and capital initiatives at Great Lakes are nearing completion, there is little advantage to collocation at regional centers. The variable geographic workload demands flexibility, most easily accomplished through a centralized "reach-back" capability to avoid duplication of resources.
- Remaining in Charleston will eliminate the risk of the loss of intellectual capital, estimated at 50% of the staff.
- Comparing the performance of Southern Division supporting 3 remote Regional Commands with the performance of the other major NAVFAC components currently collocated with Regional Commands using NAVFAC's performance metrics shows Southern Division as the top component. This makes the assumption in the BRAC scenario correlating collocation with better performance **invalid**.
- Specialized project offices are currently deployed from Charleston to manage local issues (e.g., state regulatory interface), including Jacksonville and Great Lakes.

#### Proposed Solution:

**Retain Military Value through efficient NAVFAC mission execution by keeping Southern Division intact and save \$64M by occupying DFAS facilities in Charleston.**

## NAVFAC – Southern Division (Charleston)

### ISSUE

A centralized NAVFAC-Facilities Engineering Command should be located in Charleston vice Jacksonville as it provides enhanced military value, lowers one-time implementation costs (\$63.4M), and contributes substantially to the management effectiveness of its government-wide mission. It supports the Navy's organizational alignment and NAVFAC transformation while retaining valuable intellectual capital and enables effective execution of its dispersed and variable mission.

### DOD RECOMMENDATION

**Action** – Close NAVFAC-Southern Division (Charleston) and NAVFAC-Northeast (Philadelphia), transferring responsibilities to Jacksonville, Norfolk and Great Lakes.

**Justification** – The consolidation and collocation of NAVFAC Commands with installation management Regions enhances common management and support functions on a regionalized basis. The aggregated net present value of the savings resulting from the three actions is estimated by DOD as \$81.8M with one time cost of \$37.9M and annual recurring cost savings of \$9.1M.

### ANALYSIS OF DoD RECOMMENDATION

**Cost Savings** – The cost savings used to justify the closure of NAVFAC-Southern Division is flawed – overstating their magnitude, which is overwhelmingly weighted toward the portion of the recommendation in Philadelphia. The DOD analysis did not consider alternates in Charleston that were made available by the BRAC process itself. In addition, the analysis included personnel savings that have already been addressed in the NAVFAC Transformation process. In fact, the savings as a result of applying transformation to the SOUTH DIV AOR are projected to be 20% by FY 2011. The BRAC scenario savings of 10% is contained in the 20% already planned, and is a result of aligning NAVFAC FEC AOR with Regional Command AORs and eliminating redundant functions

In fact, the relocation of the main body of NAVFAC-Southern Division to Jacksonville has no recurring annual savings, and when compared to a Charleston location, the net present value of the Southeast consolidation in Jacksonville is negative (\$63.4M). That conclusion is based on the resolution of the following anomalies in the DOD analysis:

- ❖ Cost avoidance of current annual leased space can be achieved in Charleston through use of several options (discussed below). Most notably, a parallel BRAC action (closure of DFAS) will make ideally sized facilities available for NAVFAC with minimal renovation and near zero annual lease cost. In fact, relocation to these spaces can be achieved years earlier than can be achieved by relocation to Jacksonville, reducing total lease costs. Savings in Charleston for leased space are estimated at \$24.0M over 20 years.
- ❖ Reassignment of personnel to Jacksonville, Great Lakes and Norfolk will be expensive, both for the relocation cost of those that transfer from Charleston and for the recruitment and training for those than chose to decline their transfer. Loss of intellectual capital will be substantial and the one-time personnel transfer cost is estimated at \$40.1M.
- ❖ Cost savings from downsizing (62 FTE and \$106.1M) have been assumed in the analysis of all locations. It is a result of the NAVAF transformation process not this BRAC decision. As discussed below, operational efficiency will be higher with NAVFAC-Southern Division's functions remaining in an aggregated portfolio, making realization of those efficiencies more probable. However, future transformation execution efficiencies are included for all alternatives as a matter of sound management.

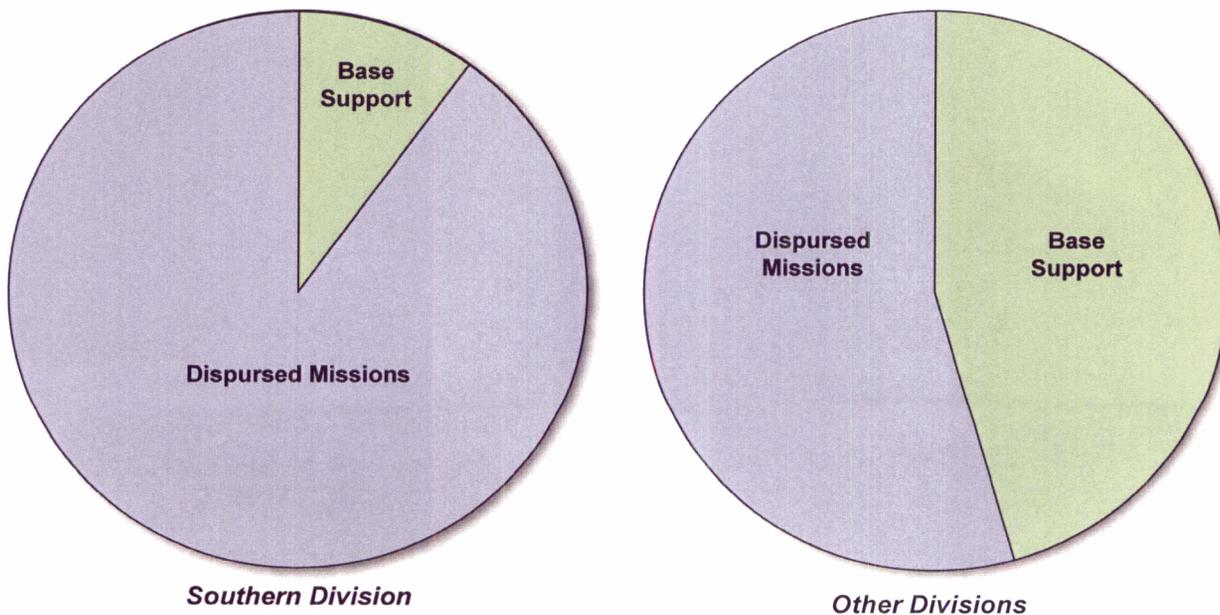
**Mission collocation** – The premise of the Military Value portion of the DOD Recommendation is that collocation of NAVFAC-Southern Division with the Region is more efficient. Again, this assertion is incorrect. For NAVFAC-Southern Division, there is minimal benefit in collocating Facilities Engineering Commands and Regional Commands. In fact, dividing it into three elements abandons substantial benefits of mission stability and the creation of a technical "reach-back" capability. While there is support from NAVFAC-Southern Division to Navy facilities in Jacksonville and Great Lakes, the magnitude of that

support is small when compared to its overall workload. The greater Jacksonville area represents less than 15% of NAVFAC-Southern Division's mission. In Great Lakes, NAVFAC-Southern Division's recent support to a major capital initiative has represented about one third of its mission. However, by FY2007, support in Great Lakes will be reduced to levels less than Jacksonville. By contrast, Norfolk and San Diego have congruence of base support to total mission for about half their portfolio.

The real synergy gained in the Navy transformation creating geographic Facility Engineering Commands (FECs) to support Regional Commands is in the alignment of areas of responsibilities (AORs) and the tailoring of the on-site presence to support specific installations and fleet concentration areas (FCAs). The current plan for supporting the Navy locates tailored Facilities Engineering assets (Public Works and ROICC) at all installations regardless of BRAC decisions to optimize the delivery of work. That will be done in Jacksonville to support that FCA regardless of the FEC location. The FEC is the reach-back engine that supports its local offices across the Region's AOR in the delivery of work to installations. Particularly for NAVFAC-Southern Division, there is no productivity enhancement gained by locating a FEC with one of the local offices.

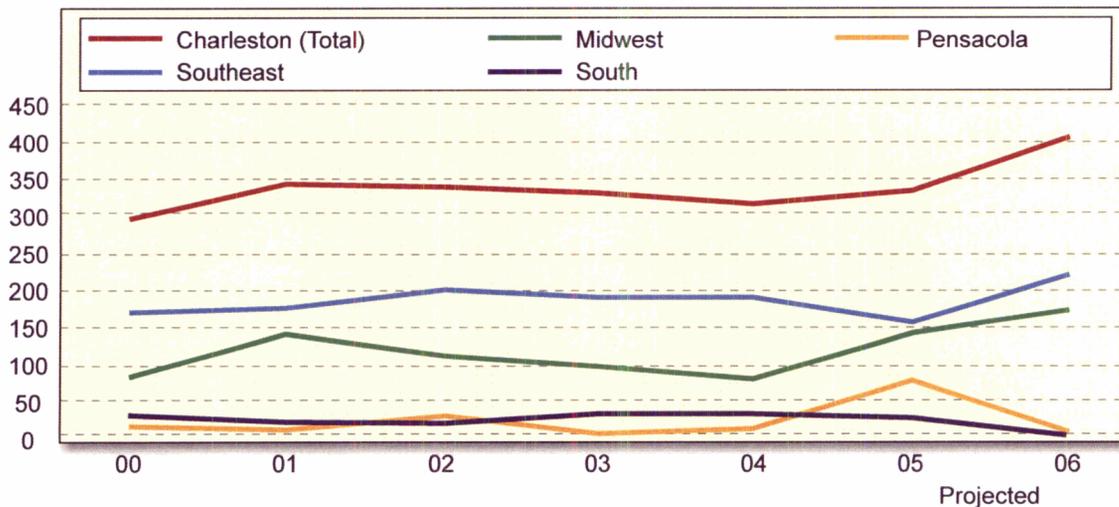
For NAVFAC-Southern Division, the vast majority of their work is delivered to installations across the South and Mid-west, separated by long distances from the Regional Commander in Jacksonville. The support provided to those installations has been excellent, and was not dependent on the collocation of Southern Division with the Regional Commander. As of the March Operations Assessment of the four NAVFAC locations, NAVFAC-Southern Division was ranked the most effective in 11 of 19 assessed performance areas.

**Geographic Dispersal of Charleston Mission vs. Norfolk, Jacksonville, and Great Lakes**

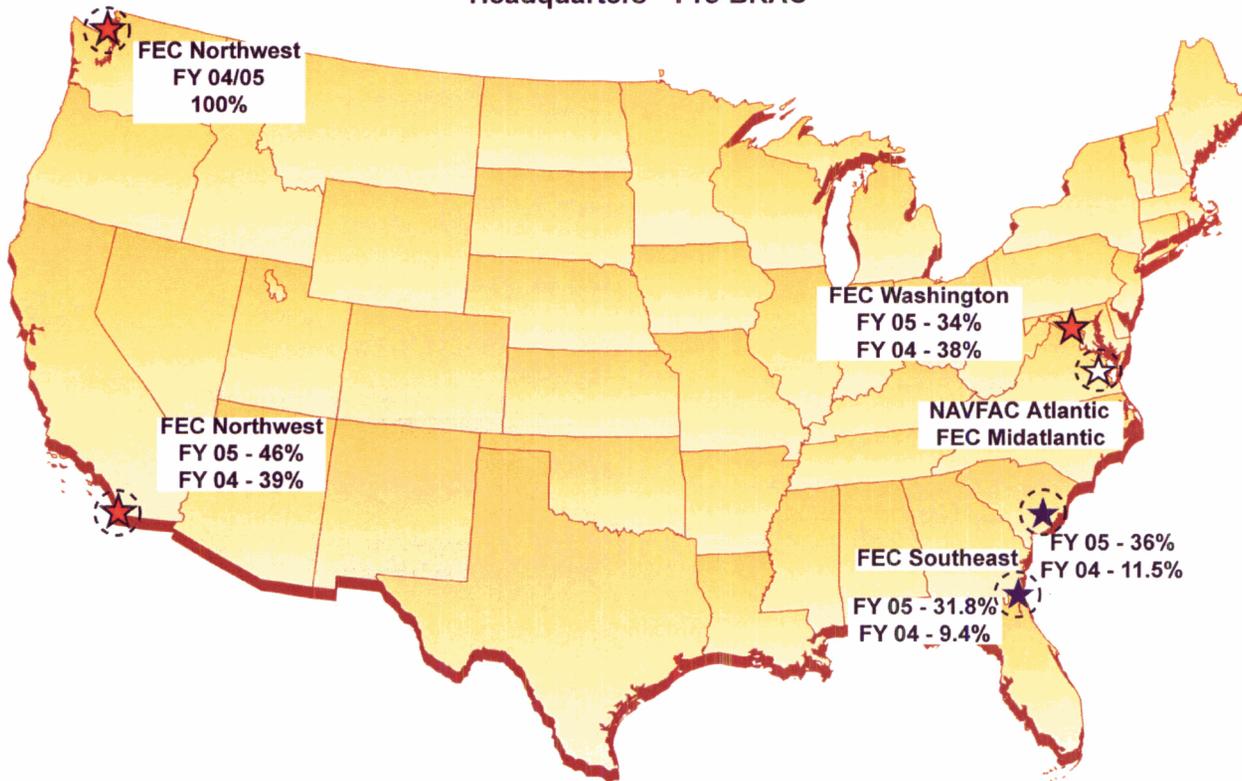


Over the years, workload has spiked at various locations within Southern Division's AOR and was accommodated with little perturbation. That work has been accomplished in an exceptional manner. Aggregation of work for installations over this broad area allows not only for load leveling, but also avoids the duplication of specialty expertise (e.g., CERCLA legal support) within the "reach-back engine". This has allowed NAVFAC-Southern Division to perform their work at an exceptional level. For example, NAVFAC-Southern Division responded over night to support the recovery from Hurricane Ivan. They awarded \$47M worth of emergency repairs and had 1650 contractor personnel on the ground within 17 days, had the airfield operational within 10 days, completed \$37 M of repairs to Chevalier Hall within 89 days, and are on track to complete almost \$600M worth of repairs within 2 years of the hurricane.

**Even Charleston Workload and Widely Variant Workload**



**FY 04/05 Component Workload Percent Located Within 100 Mile Radius of the EFD Headquarters—Pre-BRAC**



**Intellectual Capital** – It is probable that an inordinate number (50%) of NAVFAC-Southern Division's staff will not relocate to Jacksonville, Norfolk and Great Lakes. The quality of life in Charleston is very high and many NAVFAC staff will choose to remain there. Aside from the cost of retirement, relocation and

retraining, these assets will have to be replaced. On February 9, 2005, Federal Times reported that the DOD is seeking to hire more than 14,000 scientists and engineers due to increased departures from baby boomers and lower participation in technical programs at universities by US citizens (as opposed to foreign nationals). We must assure that any significant loss of technical capability is incurred only where there are clear and measurable benefits in military value.

#### PROPOSED SOLUTION

**DFAS Offices (Option 1)** – An attractive alternative in Charleston was omitted from the DOD analysis. With impending closure of the DFAS mission in Charleston, excellent facilities are available for NAVFAC. The facility has 78,000 square feet of space available to house both the total technical staff and their specialized engineering needs. While this facility is not on federal property, the government holds a 50-year, low-cost (\$1 per year) lease on the facility that is assignable to any other federal entity. There are 46 years remaining on this lease with an option available for another 50-year extension. This alternative would allow for the closure of current expensive lease space occupied by NAVFAC, saving \$24.0M and avoiding the capital cost of new facilities in the BRAC scenario (\$24.8M). Since the facilities assumed to house NAVFAC expansion in Jacksonville, Great Lakes and Norfolk in the DOD analysis is not available, this presents a very attractive alternative to the construction of a new engineering facility.

Since the lease was entered into in 2001, it is technically considered to be ATRP compliant. However, we have developed a plan to improve the protection of the building, estimated at \$150K, which is included in our cost analysis. Converting the space to be suitable for engineering activities is estimated at \$1.4M, including communications systems.

**New space with third-party ownership (Option 2)** – The Berkeley, Charleston, and Dorchester County Council of Governments has an unsolicited proposal on record (December 9, 2004) to build offices on government land for NAVFAC-Southern Division under lease back arrangements with the Navy. While the Navy did not consider that proposal, it remains available should issues arise with the use of the DFAS facility above. The 20-year lease costs for this facility are estimated at \$22.5M. Some local relocation costs would be incurred (\$1.4M), however, this option represents a \$41M savings relative to relocation in the BRAC scenario.

**Remain in current offices (Option 3)** – Remaining in Charleston continues to be attractive, even if the DFAC Offices are not available. Continued occupancy in current leased space would have a 20-year cost of \$24M, far less than the \$65M cost of relocating.

#### SUMMARY OF SAVINGS FOR CHARLESTON LOCATION OF NAVFAC-SOUTHEAST\*

Facility and Relocation Cost (\$M)				
Capital Cost	24.8	--	--	--
One-Time Relocation and Personnel Cost	40.1	1.4	1.4	--
Lease Cost	--	--	22.5	24.0
Total Cost	64.9	1.4	23.9	24.0
Personnel Downsizing	(106.1)	(106.1)	(106.1)	(106.1)
Savings	(41.2)	(104.7)	(82.2)	(82.1)
<b>Savings to Remain in Charleston</b>		<b>\$64.3M</b>	<b>\$41.0</b>	<b>\$40.9</b>

\* Cost in then-year dollars over 20 years -- recognize that BRAC analysis is in constant 2005 dollars.

### Proposed SOUTHDIV Questions

#### **Military Value:**

Q1: Does NAVFAC have a set of metrics that it uses to measure the effectiveness and efficiency of its subordinate engineering commands?

Q2: How does SOUTHDIV compare using these metrics against the engineering commands in Norfolk, San Diego and Pearl Harbor? #1, #2, #3 or #4?

Q3: Does SOUTHDIV only serve the Navy as a design and construction agent in the central 26-states?

Q4: What percent of the total SOUTHDIV workload does the Marine Corps, Air Force and other federal/defense agencies workload represent?

Q5: Does the proposed NAVFAC realignment based on Navy fleet concentration areas mean that NAVFAC will transfer its non-Navy workload to the Army Corps of Engineers to solely concentrate on Navy workload?

Q6: Has the key to SOUTHDIV's success and military value been its geographic location or the quality and culture of the professionals that work at SOUTHDIV, that has allowed SOUTHDIV to be such an effective and efficient engineering, procurement and construction organization?

Q7: Will smaller engineering organizations like Facility Engineering Command (FEC) Southeast and Midwest have the same reach back capability to respond as effectively as SOUTHDIV did during the Hurricane IVAN recovery efforts or in other contingency operations?

Q8: If SOUTHDIV had been located in Jacksonville, would the recovery efforts in Pensacola after IVAN been more successful?

Q9: Do you believe the Military Value of a FEC is based more on its location or its proven capability to accomplish its mission?

Q10: If the location of the FEC determines the quality of its work, does that mean the Navy believes that the clients in the Jacksonville area will receive better services than those outside the Jacksonville area?

#### **Realignment:**

Q1: Is the engineering and construction workload in the 26 central states that SOUTHDIV presently serves predominantly in one fleet concentration area like the FECs established in Norfolk; Washington, DC; San Diego; Bremerton; Great Lakes or Pearl Harbor?

Q2: If NAVFAC closes SOUTHDIV under this BRAC action and realigns the engineering and contracting functions to FEC Southeast and FEC Midwest, will the workload for these two new organizations in their newly established areas of responsibility be predominantly in the Fleet Concentration Area at Jacksonville and Great Lakes like the FECs at Norfolk; Washington, DC; Sand Diego; Bremerton and Pearl Harbor?

Q3: How has SOUTHDIV been able to be so successful executing the wide range of services it delivers to its clients without being located in a fleet concentration area?

Q4: The Navy has been the leader in network centric thinking in this new information age. Why is the geographic location of an engineering organization in the shore establishment important when technology has made the world flat?

Q5: How do your clients rate SOUTHDIV's customer satisfaction?

Q6: Have you received written feedback or comments from the commands you serve that SOUTHDIV's location adversely impacted the quality or responsiveness of the products and services you provided to them?

Q7: America's large, private sector Engineering, Procurement and Construction (EPC) firms comparable to NAVFAC like Bechtel, Parsons, CH2M Hill, Kellogg Brown Root, Fluor Daniel, Jacobs, et al. have large central engineering and technical staff to serve their clients. They forward deploy limited liaison personnel to the customers' locations, but do not break up and realign their engineering talent to relocate to the geographic location of their clients. It would be too expensive and not allow them to build a competent technical cadre to be competitive in the EPC sector. How is NAVFAC going to provide more responsive and cost effective engineering support by breaking up the engineering and technical core at SOUTHDIV when private sector EPCs cannot do this?

Q8: Does the Commander, NAVFAC have some new engineering management philosophy break through that CEOs of America's largest EPCs have not yet discovered?

Q9: Has NAVFAC run a financial pro forma on the cost of providing the products and services to the clients in the central 26 states from 3 locations vice one location since SOUTHDIV is the most cost effective provider in the NAVFAC corporation?

**Past Realignment Experience:**

Q1: The Navy has changed its shore establishment alignment at least five times in the past 20 years. Will NAVFAC continue to 'chase the flag pole' at the taxpayers' expense every time the Navy realigns if there is another change to the way the Navy organizes its shore establishment in the future?

Q2: NAVFAC's largest and most effective engineering field division was WESTDIV in San Francisco. NAVFAC made a decision to realign this organization to San Diego and Bremerton and establish SOUTHWESTDIV and EFA NORTHWEST. Was NAVFAC able to close WESTDIV quickly (2-3 years)?

Q3: Did the civilian engineering and technical talent relocate to San Diego and Bremerton?

Q4: How long did NAVFAC have to keep WESTDIV in operation to execute the workload on the west coast until SOUTHWESTDIV and EFA NORTHWEST became viable organizations to successfully execute their workload?

Q5: Do you think that enough civilians will agree to transfer to Jacksonville, Great Lakes and Norfolk over the next three years to stand up these new organizations so that NAVFAC will not have to operate redundant capabilities in Charleston until Jacksonville and Great Lakes can become fully operational?

Q6: Doesn't it seem likely for NAVFAC to have similar staffing challenges to establish viable engineering capabilities at FEC Southeast and FEC Midwest like it had with the realignment of WESTDIV to San Diego and Bremerton if the current SOUTHDIV civilians do not volunteer to relocate?

Q7: If the final BRAC decision is to close SOUTHDIV, will SOUTHDIV be able to retain enough talent to successfully execute the projected BRAC workload in the central 26 states to realign the other activities relocating to Kings Bay, Jacksonville, Pensacola and Great Lakes?

**Workload:**

Q1: How would you characterize SOUTHDIV's total workload in the central 26 states over the past 5-years: stable or highly variable?

Q2: Does the aggregated workload over SOUTHDIV's central 26-state area of responsibility stabilize SOUTHDIV's overall workload?

Q3: Has a robust, stable workload made it possible for SOUTHDIV to recruit and retain the engineers, contracting officers, technical staff, attorneys and financial managers necessary to have successfully executed the wide range of services SOUTHDIV has provided to its clients?

Q4: Does the realignment of SOUTHDIV's area of responsibility into FEC Southeast and FEC Midwest provide a predictable and stable workload for these two new engineering organizations?

Q5: Since the disaggregated workload in these two smaller areas has been and will be highly variable year to year and not stable like the aggregated SOUTHDIV's workload, will these smaller engineering organizations be able to recruit and retain the engineering and contracting professionals necessary to create the same level of intellectual capital that now exists at SOUTHDIV?

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## Executive Summary

***Relocation of Maritime Information Systems work from NSWC Dahlgren and NUWC, RI to SPAWAR Systems Center (SSC) Charleston in lieu of San Diego provides dramatic cost savings and synergy of function.***

### Rationale

- The work being transferred has enormous synergy with work already underway at SSC Charleston in C4ISR and Combat Systems, Submarine Information Systems, Synergies with Platform Integration, and Joint and Interdepartmental Programs.
- Relocation to Charleston retains all the advantages realized by reduction of the program from twelve sites to five, since Charleston is one of those five sites.
- Cost savings associated with relocation of these missions to Charleston in lieu of San Diego is estimated at \$30M over 20 years.

### Considerations for BRAC Commission and Staff evaluation of DoD recommendation

- Cost of operations and manpower implications of Charleston over San Diego
  - SSC Charleston's labor rates are 5.26% less expensive than the San Diego area according to the standard published locality pay differentials and Charleston is 30% less expensive than San Diego for the contractor workforce.
  - SSC Charleston is the most efficient of all the Navy engineering and warfare commands and is 61% below the Navy's cost average.
  - Movement of personnel along the east coast from Dahlgren and Newport to Charleston is much more likely to preserve intellectual capital by offering a cost effective relocation as compared to San Diego whose cost of housing is 65% greater than Charleston.
- Highly synergistic work functions between current work in Charleston and work to be relocated from Dahlgren and Newport
  - There is substantial synergy between the work being transferred and work already underway at SSC Charleston.
    - C4ISR and Combat Systems Synergies
    - Submarine Information Systems Synergies
    - Synergies with Platform Integration Activities
    - Synergies with Joint and Interdepartmental Programs
- Proposed solution agrees with DoD recommendation of reducing technical facilities
  - Relocation of this work to Charleston supports the reduction in the number of technical facilities engaged in Maritime Sensors, Electronic Warfare, & Electronics and Information Systems RDAT&E from twelve to five.

### Proposed Solution

***Relocate Maritime Information Systems work from NSWC Dahlgren and NUWC, RI to SSC Charleston***

**Move Maritime Information Systems Work from NSWC Dahlgren and NUWC, RI to SPAWAR Systems Center in Charleston**

**Action:**       **Consolidate Maritime C4ISR Research, Development & Acquisition, Test & Evaluation**

**Issue:**

Relocation of Maritime Information Systems Research, Development & Acquisition, and Test & Evaluation work from Naval Surface Warfare Center in Dahlgren, VA and Naval Station Newport, RI to SPAWAR Systems Center (SSC) Atlantic in Charleston provides dramatic cost savings and synergy of function as well as collaboration with multi-use and joint projects. The scenario of moving these elements to Charleston was never considered and should have been in order to provide DoD with the greatest possible benefits while achieving the maximum cost savings possible.

**DoD Recommendation:**

Relocate Maritime Information Systems Research, Development & Acquisition, and Test & Evaluation work from Naval Surface Warfare Center in Dahlgren, VA and Naval Station Newport, RI to SPAWAR Systems Center Pacific in San Diego<sup>1</sup>.

**DoD Justification:**

These recommended realignments and consolidations provide for multifunctional and multidisciplinary Centers of Excellence in Maritime C4ISR. This recommendation will also reduce the number of technical facilities engaged in Maritime Sensors, Electronic Warfare, & Electronics and Information Systems RDATE from twelve to five. This, in turn, will reduce overlapping infrastructure, increase the efficiency of operations, and support an integrated approach to RDATE for maritime C4ISR. Another result would also be reduced cycle time for fielding systems to the warfighter<sup>2</sup>.

**Analysis of DoD Recommendation and Justification:**

Work at NUWCNPT is characterized broadly as submarine communications with specific efforts involving the Trident Integrated Radio Room. Work at NSWC Dahlgren focuses on combat information systems for shipboard applications. DoD's justification focuses primarily on reducing the number of technical facilities engaged in Maritime Sensors, Electronic Warfare, & Electronics and Information Systems RDATE from twelve to five. NUWCNPT ranked #8 and NSWC Dahlgren ranked #12 in Information Systems Technology (IST) Development and Acquisition (D&A) as compared to SSC San Diego and Charleston at #3 and #4 respectively.

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<sup>1</sup> BRAC Report Detailed Recommendations, Section 10: Recommendations – Technical Joint Cross-Service Group, page Tech-9, page 373 of 393

<sup>2</sup> BRAC Report Detailed Recommendations, Section 10: Recommendations – Technical Joint Cross-Service Group, page Tech-10, page 374 of 393

### **Comparative Advantages of Charleston, SC:** **\$30M in Cost Savings**

*Lower Labor Costs* – SSC Charleston's labor rates are 5.26% less expensive than the San Diego area according to the standard published locality pay differentials. Using Bureau of Labor Statistics data, Charleston is 30% less expensive than San Diego for the contractor workforce. Under the proposed actions, approximately 100 civilians from NSWC Dahlgren are slated to move to San Diego and 100 more are slated to move from NUWCNPT to San Diego in 2006 and 2007. Additionally, an estimated 50 contractors are slated to move over the same timeframe from these locations. By relocating this function to Charleston instead of San Diego, DoD could realize a savings of approximately \$29M over the twenty-year timeframe as compared to moving these individuals to San Diego.

*Attractive Cost of Living* – This savings also does not include cost savings of an additional \$1M associated with keeping these personnel on the East Coast rather than moving them across the country<sup>3</sup>. Movement of personnel along the East Coast from Dahlgren and Newport to Charleston is much more likely to preserve intellectual capital by offering a cost-effective relocation as compared to San Diego. With an average three-bedroom home costing \$429,000 in San Diego vs. \$259,000 in Charleston<sup>4</sup>, personnel are much more likely to move to Charleston than San Diego, thus preserving highly trained personnel on important military programs.

*Effective Cost Structure* – This analysis does not consider savings achieved through SSC Charleston's more efficient cost structure as documented in the SECNAV study conducted by Booz Allen. This study illustrated that SSC Charleston is the most efficient of all the Navy engineering and warfare commands and is 61% below the Navy's cost average.

### **Highly Synergistic Mission Functions**

*C4ISR and Combat Systems Synergies* – SSC Charleston is a major provider of C4ISR systems for Navy applications. It has long been a desire to have a closer coupling between C4ISR systems and combat systems from a developmental and operational standpoint. In fact, FORCENet objectives can be more readily achieved through this closer coupling. SSC Charleston is the developer and implementer of the FORCENet Integrated Baseline and was the focus of the Navy's 2003 Strategic Studies Group FORCENet Engagement Pack concept. SSC Charleston is the lead DoD activity providing engineering, acquisition, and lifecycle support for shipboard interior communications systems. Charleston's facilities combine interior communication systems engineering capabilities with shipboard network laboratories to provide an integrated data and voice interoperability solutions afloat that are used extensively in relaying information between C4ISR and combat systems. SSC Charleston is the only DoD activity providing engineering, lifecycle support, and program management for shipboard wireless communication systems used for damage control, flight deck communications, at-sea replenishment, security, force protection small boat ops, weapons handling, and interfacing with telephone systems. SSC Charleston has been recognized by OSD as a leading organization for Global Information Grid – Bandwidth Expansion (GIG-BE) engineering and test execution, described as years ahead of anyone else. GIG-BE is DoD's transformational backbone necessary for transferring information between sensors, shooters, and command and control nodes. Movement of NSWC Dahlgren's information systems work to SSC Charleston provides

<sup>3</sup> Average of \$4,000 savings per move as calculated using standard moving calculator on [www.realtor.com](http://www.realtor.com) website

<sup>4</sup> According to [www.realtor.com](http://www.realtor.com) website

many synergistic benefits in achieving the Navy's FORCEnet concept and in the larger picture, DoD transformational goals.

*Submarine Information Systems Synergies* – SSC Charleston is the technical agent for many submarine information systems programs including Common Submarine Radio Room (CSRR), VLF Submarine Communications, Submarine Single Messaging Solution, and Submarine Mobile Training Team. SSC Charleston is also the only DoD facility supporting essential and critical projects for the Strategic Systems Program Office, including: submarine navigation, fire control, launcher, and other components and systems. SSC Charleston fabricates, integrates, tests, and provides lifecycle support for CSRR, the replacement for the Trident Integrated Radio Room, which is the predominant piece of the IST D&A work at NUWCNPT. SSC Charleston's 90k sq ft facility contains cable manufacturing, pre-integration, integration, and rack refurbishment capabilities and unencroached communications connectivity, all necessary for CSRR integration and testing activities.

*Synergies with Platform Integration Activities* – SSC Charleston has the mission to design, develop, build, integrate, install, and support Radio Communications Suites (RCS), Ship Signal Exploitation Space (SSES), and Common Submarine Radio Room system of systems for new ship construction and retrofit programs. The command is currently providing full turnkey development of RCS and SSES rooms for the following classes of ships: CVN, LPD, LHD, LHA, LHA(R), T-AKE, T-AGM(R), & LCS. The command is also developing the CSRR for SSN, SSGN, and SSBN classes of submarines. NUWCNPT's submarine radio room integration work fits well into SSC Charleston's currently operating facilities using proven techniques and procedures for rapid platform integration and testing.

*Synergies with Joint and Interdepartmental Programs* – Over 40% of SSC Charleston's work efforts are for joint, other service, and other federal agency customers. Many of the systems that are developed and fielded at SSC Charleston are born joint because of heavy leveraging of technologies, capabilities, and subsystems across programs for multiple customers. This business model, based on maximum reutilization of previous work, harvesting of technology, and passing savings on to the customer has led to a ten-fold increase in total obligation authority since BRAC 1993. This greatly increased workload has occurred because customers want to bring their work to SSC Charleston and not because they have to. By moving this workload from Dahlgren and Newport to Charleston, even greater opportunities exist for leveraging, reutilization, and economies of scale as future systems are developed with jointness in mind. As an example, a closer tie of shipboard combat systems into C4ISR systems for tri-service needs can be evaluated through SSC Charleston's OSD designated Chief Engineer role and transformational engineering hub for the Horizontal Fusion initiative. Results from these evaluations can be used to design and implement next generation C4ISR and combat systems that meet multi-service requirements.

### **High Military Value**

SSC Charleston, one of the five activities planned to perform Maritime C4ISR into the future, focuses on IST D&A as a primary mission. The predominance of the work performed at NUWCNPT and NSWC Dahlgren targeted by this action is in the IST D&A area. SSC Charleston was ranked #4 in military value out of 105 activities performing IST D&A<sup>5</sup>. This activity was also ranked as the most efficient of all Navy warfare and engineering centers by the SECNAV efficiency study.

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<sup>5</sup> Technical JCSG Report, Page B-40

**Summary of Proposed Solution – Major Cost Savings, Highly Synergistic Mission Functions, and High Military Value**

Movement of IST D&A work from NSWC Dahlgren and NUWNNPT will save the DoD at least \$30M over the next 20 years as compared to moving it to San Diego. Synergies exist between the work to be moved and the current work ongoing in Charleston. Relocation of this work to Charleston allows greatly enhanced opportunities for achieving jointness and leveraging across multiple services. Charleston's affordable home prices offer a very viable relocation option as compared to San Diego. SSC Charleston was ranked as having a high military value. Infrastructure currently in place and being established through MILCON projects in execution is sufficient to support these functions.

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## Executive Summary

### ***U.S. Naval Submarine School Charleston, SC: A Sensible and Compelling Alternative***

#### **Rationale**

- DoD provides no specific rationale or justification for the Submarine School relocation to Kings Bay, GA.
- Relocation of Submarine School to NWS Charleston provides powerful advantages in military value, cost effectiveness and community support.

#### **Considerations for BRAC Commission and Staff evaluation of DoD recommendation**

- Military Value Advantages of NWS Charleston over Kings Bay
  - Clear, superior, positive impact on operational readiness, warfighting and training resulting from co-location with Nuclear Power Training Command.
  - Mature infrastructure, and more real estate, roadways and buildings in excellent condition available
  - Space and ability to accommodate mobilization and surges in operations and training requirements as demonstrated during Operation Iraqi Freedom—over 1,000 rooms for Temporary Duty personnel support
- Cost of operations, manpower implications and infrastructure availability advantages of NWS Charleston over Kings Bay
  - More available infrastructure to support personnel, classrooms, dependent schooling private and military family housing (400 units) and military community support
  - Nearness to major metropolitan area and number of major transportation hubs, competitive construction contractors and ability to spread MWR expense over several facilities reduce overall cost
  - Existing education facilities schools provide stability/lower cost
  - Quality of life enhanced by willingness of Charleston to invest in military support, advanced education, MWR establishment. excellent and redundant medical care, and enriching cultural and out door sports lifestyles

#### **Proposed Solution**

***Redirect the location of the Naval Submarine School to NWS Charleston—the ideal alternative to Kings Bay.***

**United States Naval Submarine School Charleston, SC: A sensible and compelling alternative**

**Forward:** It is not the intention of the State of South Carolina, the Greater Charleston community, or the Charleston Metro Chamber of Commerce to promote or encourage a transfer of the Naval Submarine School out of Groton Connecticut. Nevertheless, if a decision to transfer is made, the State of South Carolina, the Greater Charleston community and the Charleston Metro Chamber of Commerce would like to encourage and ensure that a comprehensive and competent evaluation of the relative economics and military value of transferring the Submarine School to the Naval Weapons Station (NWS) Charleston has been conducted.

**Issue:** Relocation of The U.S. Naval Submarine School to the Naval Weapons Station in Charleston, South Carolina provides clear and powerful advantages in: (1) the educational and training synergies resulting from co-locating all basic nuclear submarine training; (2) cost savings; (3) time to implement; (4) welfare and housing of personnel; (5) transportation; (6) support resources; (7) and management effectiveness.

These synergies and resulting advantages contribute directly to the determination of military value as described in published BRAC criteria, to DoD Goals, and to DEPSECDEF's defined essential elements, or principles of military judgment for the BRAC Process.

**DoD Recommendation:**

Relocate the U.S. Naval Submarine School and Center for Submarine Learning to the Submarine Base Kings Bay, GA

**DoD Justification:**

DoD provides no specific rationale or justification for the relocation to Kings Bay, GA or any indication that Charleston, SC or another location was considered and evaluated.

**Presumed Justification:**

It is presumed that the DoD selected Kings Bay as the proposed new location since the school would be at a continuing Atlantic submarine base for proximity and visits to operating submarines. Kings Bay has the Trident Submarine Training Center and adequate land to support building a Submarine School and Center for Submarine Learning Complex and the necessary facility and personnel support infrastructure. However, the ability of the local infrastructure to accommodate this size mission will be greatly strained.

**Considerations for the BRAC Committee and Staff Evaluation of the DoD Recommendation**

**Summary Description of the Submarine School Infrastructure and Throughput**

The current Groton, CT, Submarine School teaching and administrative staff numbers 551, including submarine officers and enlisted and 16 civilians. The student average on board loading is 1383. The school reported that in Calendar year 2004, 56,654 students completed 177 courses at the school. Current students total 1650. Current training facilities are located in at least six major buildings which include administrative offices, classrooms, auditoriums, high risk trainers, e.g. damage control, fire fighting, submarine escape, and diving/ship control trainers. The facilities also include modern high technology computer based training facilities and advanced simulators for equipment operation, sensor operation and contact tracking, navigation, anti ship approach & attack and land attack weapons targeting and employment.

**Advantages in Military Value of Charleston, SC Location**

**NWS Charleston Impact on operational readiness, warfighting and training**

The collocation of the Submarine School and the current nuclear power training facilities in Charleston, e.g. the Naval Nuclear Power Training Command (NNPTC), composed of the Navy's enlisted nuclear "A" school and the enlisted and officer nuclear power schools—formerly located at the Navy Training Center Orlando, FL—and the Navy Nuclear Power Training Unit (NPTU)

composed of two moored nuclear propulsion plant training ships—will generate several synergies and necessary building and reinforcement of shipwide basic submarine knowledge. Using a strong mathematics and physics foundation, basic and theoretical courses at both schools will educate and train officers and enlisted in the electrical, mechanical, auxiliary power, electronic, air and fluid systems knowledge and procedural compliance necessary to operate and supervise operation of submarines and nuclear reactors. The same educational benefit in building and reinforcement of electrical, mechanical and nuclear engineering knowledge was pivotal in the decision of bringing the NNPTC to Charleston.

Although Kings Bay has trainers and classroom training at the present time, they are sized, outfitted and specifically designed to support the off-crew support requirements for the operation crews of assigned strategic, Trident Submarines—not for support of basic submarine training or the requirements of operating attack submarine crews. Continual improvement to the knowledge and proficiency of submarine personnel is intrinsically essential to military value and fulfills the BRAC principles of recruiting, training and equipping. Collocation at NWS Charleston provides a submarine training and education continuum ensuring improved operator knowledge and capability.

#### **Availability and condition of land & facilities**

More real estate, roadways and buildings are useable, developed and available at NWS Charleston than at Kings Bay. In addition, the infrastructure is more mature. The NWS land and its facilities provide capacity and are in excellent condition since they have been maintained to support transportation of troops and equipment in the war on terrorism for over 15 years.

#### **Ability to accommodate contingency mobilization surge to support operations and training**

There is ample experience, space and ability to accommodate mobilization and surges in training requirements based on NWS' successful handling of support operations during Desert Shield, Desert Storm, the war in Afghanistan, and Iraqi Freedom. The great surge capacity was demonstrated by the over 1,000 rooms used to support Temporary Duty personnel during Operation Iraqi Freedom alone. Kings Bay has not demonstrated an equivalent ability.

#### **Cost of operations, manpower implications and infrastructure availability**

##### **Cost effectiveness: Infrastructure and location**

Currently, there is more available infrastructure at NWS to support personnel, classrooms, dependent schooling, private and family housing and military community support. The convenience and benefits of Charleston's transportation geography and resources will save time and money. Because of the favorable location with regard to transportation hubs and the proximity of a major commercial and industrial city, the cost of construction will be reduced through reduced travel time, the quantity and density of construction trades and the many qualified construction contractors willing to compete for work. In addition, NWS has just invested in a new security facility, whereas the Kings Bay facilities are fifteen years old and the rate of increase of the cost of maintenance grows more each year.

The addition of the Submarine School will spread the basic cost of Morale, Welfare and Recreation (MWR) over a larger on base population. During 1993 deliberations upon moving the Navy Nuclear Power Propulsion Training Center (NNPTC), it was concluded that the recurring savings associated with the NWS Charleston site overcame cost avoidance and cost of construction at other sites. The recurring cost savings derived from both lower base operating cost and Permanent Change of Station (PCS) cost avoidances due to the associated Nuclear Prototype follow on school after NPPTC completion being collocated. Similar results will pertain to having Submarine School at NWS Charleston.

##### **Cost Effectiveness: Transportation**

The location of the submarine school at NWS Charleston—which is at least one half hour closer to major transportation hubs such as Charleston Airport, Charleston Air Force Base (CAFB)

commercial railroads, two interstate highways, NWS piers and wharves and the Port of Charleston—will greatly facilitate personnel and material moves and will reduce cost.

#### **Cost Effectiveness: Manpower Implications**

Instructors would have the capabilities to perform some training and education roles at both submarine and nuclear power schools, and thereby provide back up and potentially longer tours for stability. Bringing all 177 courses and instructors from Submarine School New London to the NWS would further enhance the capabilities, back up and stability, and potentially provide economies in staffing through cross training and use at both schools. Since over one third of the crew and nearly all the officers would require both basic submarine training, nearly half of the required Nuclear Power School (NPS) graduates would not require a PCS prior to going to their first submarine and base.

#### **Advantages of Charleston, South Carolina in “Other Considerations” and the “Quality of Life” BRAC Principle**

##### **Housing**

NWS has available more than 400 adequate family homes currently and is in Phase I of the Navy housing PPV. There is also a considerable selection of nearby civilian housing. In contrast, Kings Bay is a small base and comparable military housing would have to be constructed. Additionally, suitable and affordable civilian housing is more distant, and building nearby housing would be difficult. There is some housing for military personnel at NWS. Due to the high load of transient military students, housing needed to for submarine school courses, Swiss Chalet built a hotel on the base in New London. Similar arrangements would be needed at NWS or Kings Bay. Both the competitive hotel and construction environment and the historic Navy support in Charleston give NWS a decisive edge and so does the Charleston willingness to invest in the Navy's future in the Charleston area. During Desert Shield, Desert Storm and operations in Afghanistan and Iraq, local hotels and motels provided special rates for military personnel traveling through and on temporary duty in the Charleston area. Such arrangements will speed up the submarine schools ramp up to full operations in Charleston in minimum time.

##### **Dependent Schooling, Advanced Education and Quality of Life**

There is adequate primary public schooling infrastructure on the NWS and adequate public school classroom space in nearby communities. Public schooling is more distant and a public schooling infrastructure would have to be established on base at Kings Bay. There is a better opportunity for military and federal civilian personnel to receive quality education from nearby colleges and universities such as The Charleston Community College system, Trident Tech, the College of Charleston, The Citadel, and the Medical University of South Carolina (MUSC). Kings Bay has only extension courses.

##### **Navy Community Support Infrastructure**

A strong family support infrastructure is in place at NWS including a mature Morale, Welfare and Recreation (MWR) organization and facilities, a chapel commissary and exchange. This infrastructure is duplicated at the nearby CAFB. There are plans in place for a new medical clinic. A resource sharing agreement with the Trident Health System serves as the inpatient military treatment facility reducing DoD costs while also expanding outpatient care. Finally, the strong civilian hospital support includes the multi hospital Trident Health System, Medical University of South Carolina (MUSC), Roper/St. Francis, East Cooper, and Veteran Administration Hospitals.

##### **Quality of Life and Commuting**

Nearby Charleston and its surrounding communities, gardens, museums, concert halls, theater entertainment, renowned restaurants, and prestige as a historic treasure and tourist attraction create a high quality, enriching and enjoyable life-style. They are only minutes away and much closer than the 45-minute drive to Jacksonville. Taken in total, the variety and quantity of outdoor activities, sports, boating, hunting and fishing are not easily surpassed. The Charleston and the

State of South Carolina have historically provided strong support to the military--a matter of record.

### **Proposed Solution**

If the Naval Submarine School is relocated, collocate it with the Nuclear Power School and prototype at NWS Charleston.

### **Summary of Effectiveness and Military Value**

Full utilization of the submarine school will occur earlier in Charleston because of the existing infrastructure and community support. With the collocation of Nuclear Power School and the Naval Submarine School at Charleston, training and education synergies will be enhanced and improve the level of knowledge and capability of nuclear submarine pipeline graduates. Locating the submarine school at NWS, using in large part the current infrastructure, will be more cost effective than building a new infrastructure at Kings Bay. The Charleston Community offers an enhanced quality of life and resultant high morale. Charleston and the NWS team are the ideal alternative to Kings Bay as the location of the Naval Submarine School, since they will provide the cost effective and high quality of life environment that contributes to the highest military value--timely provision of knowledgeable and capable military personnel with high morale. Charleston and NWS are ready to produce these dedicated young men and women.

DCN: 3712

# **Charleston, SC**

## **A Joint Military Complex** **Existing, Proven, Unique – a model for Transformation**

Charleston Metro Chamber of Commerce  
June 2005





## **Joint Transportation, Logistics, Engineering & Training Complex**

### **Sealift**

Providing war-proven throughput capability for military equipment

- NWS – 17,000 acres of land, 17 miles of waterfront, 4 deepwater piers & 254 magazines -- ***unencumbered***
- Provided the Army with 30% of its combat equipment sealift requirements for Operation Iraqi Freedom (OIF)

### **Prepositioning**

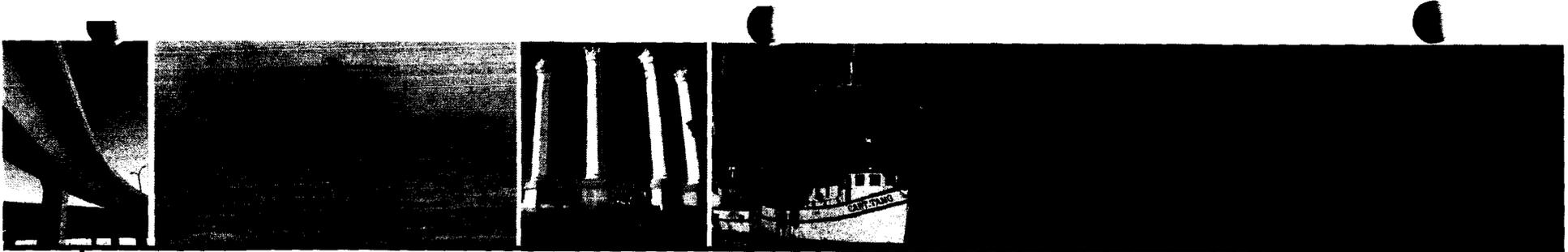
Critical hub & support site to Army prepositioning pipeline

- Army's only CONUS prepositioning hub & military deployment base
- OIF demanded a surge of equipment shipments, loading 110 ships with 60,000 pieces of equipment, using a robust intermodal infrastructure – 9,500 rail cars and 18,000 tractor trailers
- All 12 Army equipment prepositioning ships were offloaded & used for OIF

### **Airlift**

The proven, premier provider of military airlift for operations & combat training

- Premier provider of military airlift, operating 53 C-17 aircraft with an active duty-reserve partnership – free from local flight restrictions
- For OIF, 60% of channel cargo airlifted went through Charleston AFB



## **Joint Transportation, Logistics, Engineering & Training Complex**

### **Engineering**

Providing state-of-the-art  
engineering & technology  
insertion support to all services  
& multiple agencies

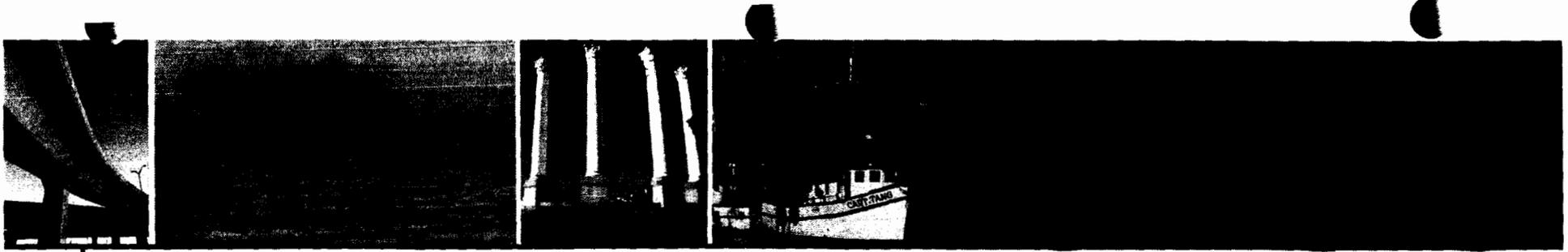
### **Training**

Home to unique, state-of-the-art,  
world-class training centers

### **Law Enforcement**

A model of multi-agency integration  
for Homeland Security

- SPAWAR Systems Center (SSC) Charleston is a \$2.4B/yr state-of-the-art C4ISR engineering complex – a developer of FORCEnet Integrated Baseline & an integrator for DOD's Horizontal Fusion
- NAVFAC-Southern Division is a \$2B/yr facility design organization serving the Navy, Unified Commanders and other services & agencies
- The Charleston Army Corps of Engineers protects federal/military interests in navigation & flood damage reduction
- NNPTC and NPTU provide classroom and operational training & qualification for Nuclear Navy officers and enlisted personnel (3,000/year)
- Air Force provides realistic, third-world airlift flight training, with combat conditions & special forces insertion at North Field Auxiliary Training Site
- NWS is home to Army & Navy Reserve Units
- Federal Law Enforcement Training Center recently established in Charleston
- DOJ Project SeaHawk links emergency response of local, state and federal assets (e.g., Navy, FBI & Coast Guard) through Charleston Harbor Operations Center



## **Unique Capabilities**

### **Integrated Infrastructure**

Unmatched intersection of military  
& civil capability

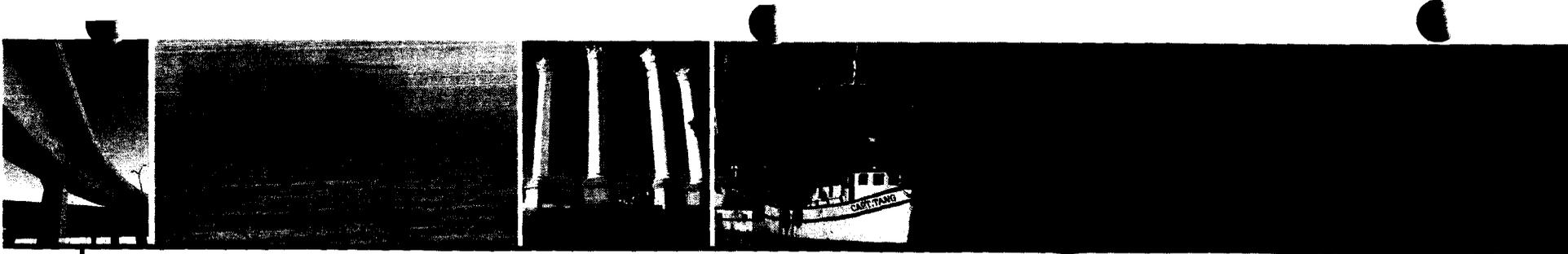
### **Freedom from Restrictions**

Unencumbered operations and  
training

### **Sole Provider**

Unique service provider to the  
military

- Co-location with the East Coast's second largest & most efficient container port provides robust, low-cost surge capability – free from staging & lay-down charges
- Co-location with Charleston International Airport links equipment suppliers to the military through commercial airlift infrastructure
- Strategic Intermodal Rapid Deployment Transportation Hub
- Absence of explosives safety waivers for weapons storage & handling
- Absence of operational or training restrictions from air traffic, encroachment or safety limits at both Charleston AFB & the North Field Auxiliary Training Site
- Only military seaport for deployment of combat equipment
- Only activity to execute Army Afloat program
- Only one-stop on/off-load & refurbishment of Army combat equipment
- Only DOD activity providing ammunition receipt, storage, segregation & issue for USMC prepositioning ships



## **Efficient Mission Execution**

### **Military Infrastructure & Surge Capability**

Charleston's flexible infrastructure, with contiguous civil & military sealift and airlift ports, provides reliable & proven capabilities in time of emergency or national need

- As a military port, NWS is free from commercial staging & laydown cost (saves \$300K per ship)
- In response to Operation Iraqi Freedom, CAFB became a surge hub for all 100 C-17's, increasing average daily missions 180% and trucks unloaded by 400%
- In response to weather-imposed damage to Dover AFB in February 2003, CAFB tripled their cargo throughput to accommodate mission requirements

### **Cost Effectiveness**

Charleston's Military Complex provides value to the military with inherent lower personnel costs, shared resources, capabilities & security

- Over 30 commands in Charleston – sharing support services
- Lower grade structure and labor costs compared to other areas
- SSC Charleston is the Navy's most efficient provider of rapid acquisition expertise with a G&A/overhead rate 71% below the Navy average
- Charleston's Coast Guard Base will be sector headquarters – air & surface units provide Homeland Security/Force Protection support for commercial & military shipping & NWS



## **On-going Transformation**

### **Joint Service Integration**

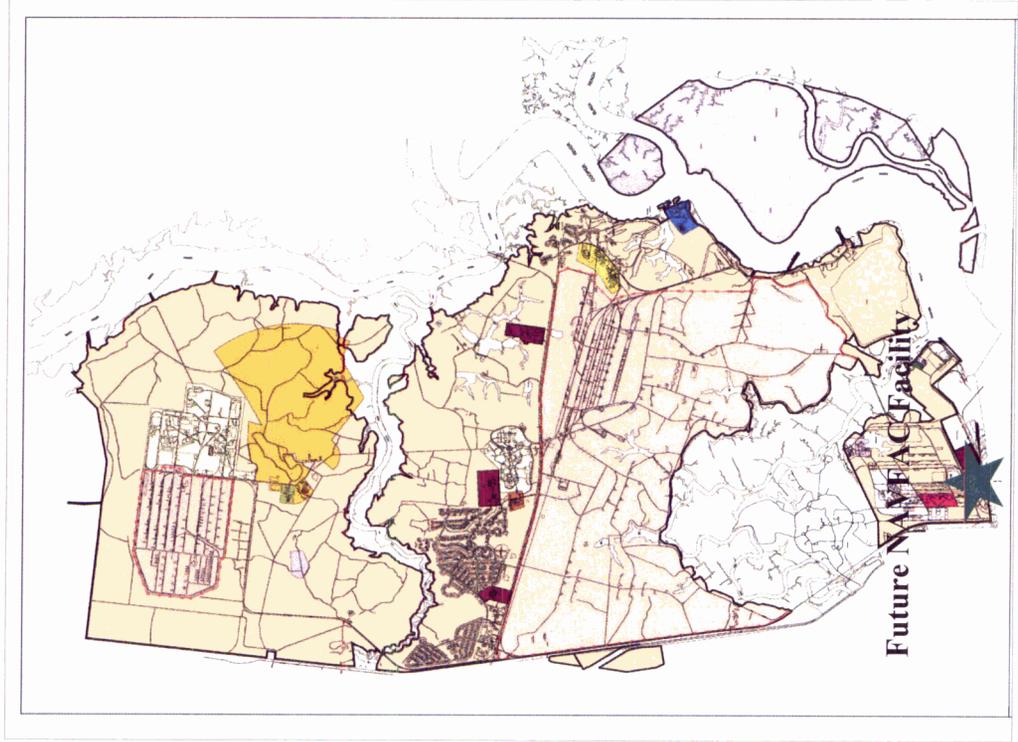
Already working together for efficiency & effectiveness

### **Private Sector Partnerships**

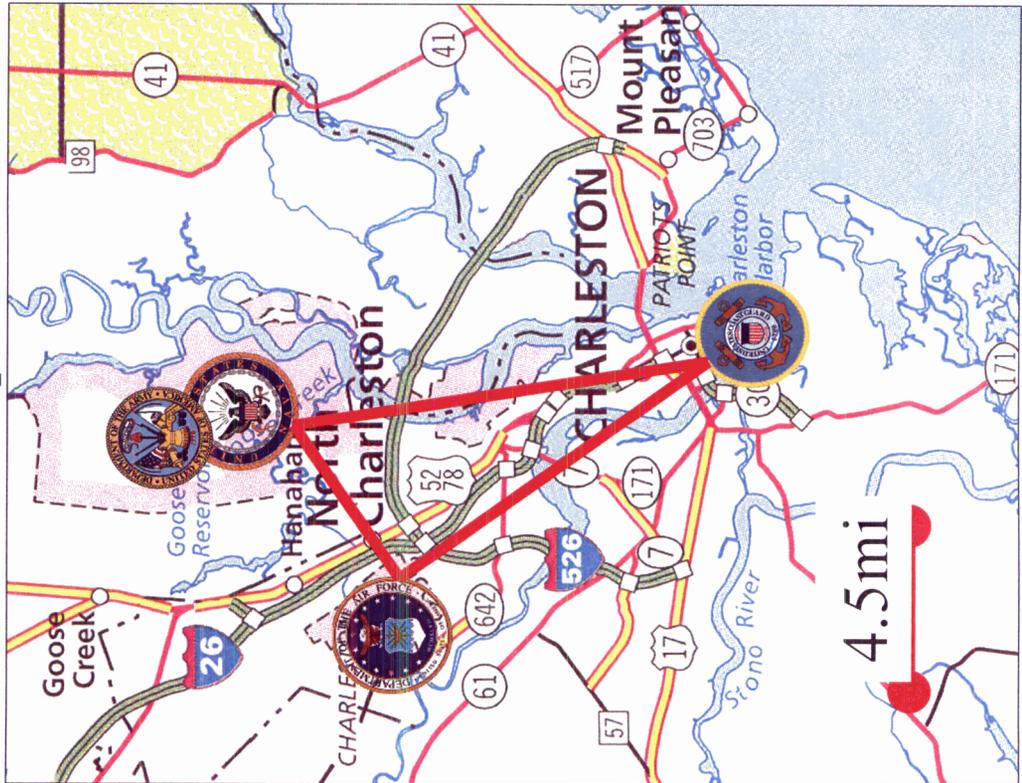
Charleston's demonstrated support for the military with infrastructure, services & agreements

- NWS is host to over 20 military commands
- Charleston's unique North Field Auxiliary Training Site is in high demand and is made available to other users
- NWS provides bulk jet fuel delivery to CAFB through underground pipeline
- Engineering centers enjoy multi-service sponsors – providing value, timeliness and solution effectiveness
- Charleston's Military Complex already realizes reduced Base Operating Support (BOS) costs
- Charleston's military community is served by a partnership of local hospitals, providing low-cost medical service with no military beds
- Strong community support for modern pathways, including deepwater channels and interconnecting highways & rail lines and the \$600M new Cooper River Bridge
- Former Charleston Naval Shipyard now a viable private enterprise, selling services to both public & private sectors
- Effective agreements are in place for mutual cooperation with community fire, police & emergency response assets, and enhanced with Project SeaHawk

# Naval Weapons Station



# Charleston's Military Complex





## **Proposed Financing Approach to Meet the Navy's Mission**

### **Proposal**

Facilitates replacement of currently leased NAVFAC offices

- Facility for 561 personnel, with computer aided graphics & video teleconferencing
- Accomplish work through rapid private sector processes and community assumption of risk

### **Benefits**

Provides the Navy with early access to mission-efficient space

- Early aggregation of command personnel in one location
- Accelerated resolution of known deficiencies in currently leased space
- Below-market rates under long-term lease arrangements

### **Sponsor**

Council of Governments – Berkeley, Charleston & Dorchester Counties

### **Terms**

Long-Term Lease with Navy ownership at end of lease

- Lease term of 10 to 32 years – at Navy preference
- Subject to availability of funding
- Other terms to protect Navy, including buyouts, fencing and approvals

### **Authority**

Compliant with 10 U.S.C. 2812

- Used for administrative offices
- Located on a military installation
- Relevant examples include:
  - Orlando, FL – Naval Air Warfare Center, Training Systems Division (NAWC TSD) Research facility with University of Central Florida
  - Meridian, MS – Reserve Center with Lauderdale County, Mississippi



## The Future

### Land

- Ample federal land available for expansion
- Facilities unencumbered with operational restrictions for air traffic, electronic interference, frequency spectrum limitations or safety
- No environmental legacies

### Infrastructure

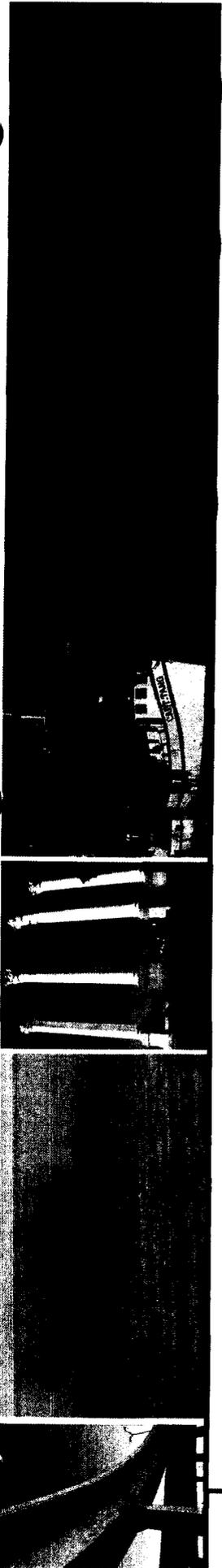
- Low cost of living, skilled manpower availability and mild climate promote operational efficiency
- Low-cost medical support to military community is a continuing reality

### Efficiency

- Shared resources across all bases, commands and other federal agencies
- Reduced Base Operating Support (BOS) Cost
- Lowest costs to customers

***Charleston – Committed to expanding its role as a proven, joint military complex***

# Back Up





## Naval Weapons Station Charleston

### Mission

- Provides superior host & technical services through ordnance operations, facilities management & waterfront operations to multi-service customers using 17,000 acres of land, 17 miles of waterfront, 4 deepwater piers & 254 unencumbered magazines

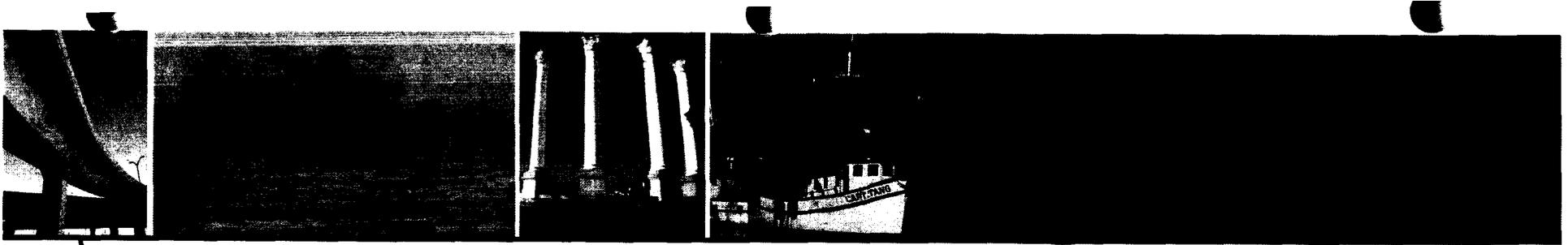
### Accomplishments

- Provided the Army with over 30% of its sealift requirements for combat equipment
- Operation Iraqi Freedom demanded a surge of equipment shipments, loading 110 ships with 60,000 pieces of equipment, using a robust intermodal infrastructure – 9,500 rail cars and 18,000 tractor trailers
- Housed enemy combatants in BRIG

### Unique Capabilities

- Co-location with the East Coast's second largest commercial port provides robust, low-cost surge capability – free from staging & lay-down charges
- Absence of safety waivers for weapons storage & handling
- Only military seaport for deployment of equipment
- Only CONUS facility mating warheads to mine bodies
- Supports DOE spent fuel shipments

*Most efficient CONUS deployment port*



## **SPAWAR Systems Center Charleston**

### **Mission**

- SSC Charleston is a \$2.4B/yr state-of-the-art electronics complex focused on engineering, development, testing, staging, repair, calibration and certification of C4ISR systems

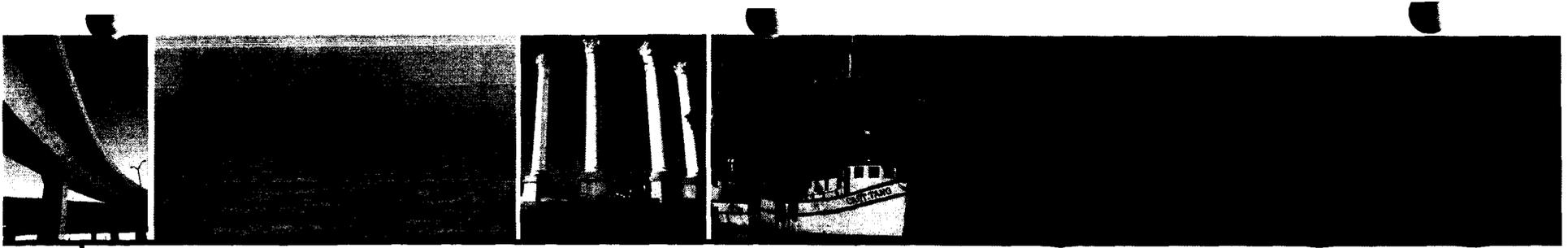
### **Accomplishments**

- SSC Charleston Sponsor satisfaction underlies their 17% per year funding authority and 63% increase in man-power demand
- SSC Charleston is aligned with major military initiatives, particularly a leading role in the development of FORCEnet & integrator of DOD's Horizontal Fusion

### **Unique Capabilities**

- Lower grade structure and labor costs compared to other areas
- Navy's most efficient provider of rapid acquisition expertise with a G&A/overhead rate 71% below the Navy average - results in lower costs to customers
- Only Joint Tactical Radio System Technology Lab
- Only government facility providing SIGINT to all services

*Maximum speed from development to deployment in support of the war fighter*



## Port of Charleston

### Mission

- Foster and stimulate the waterborne commerce and shipment of freight through Charleston, developing and operating efficient marine terminals and attracting high-quality steamship services

### Accomplishments

- Charleston is second only to the Port Authority of New York & New Jersey on the East Coast for the rate of shipping containers handled
- In FY04, Charleston handled 2,385 ships carrying 613,000 tons of cargo
- Most efficient port in the world, except Singapore

### Unique Capabilities

- Designated a “strategic port”, the Port of Charleston is available to the military in time of need, including equipment and manpower
- Contiguous to NWS, cargo can be staged on government property & brought to the Port without leaving protected space.
- Efficient private sector ship repair yard (formerly Charleston Naval Shipyard) supports Navy as needed - over \$100M Military Sealift Command business in recent years alone

***Military-commercial partnerships – a part of the multi-modal transportation hub***



## Army Transportation/Logistics - Charleston

### Mission

- Critical supply to prepositioning pipeline provided by the East Coast's only all-military cargo port
  - Combat Equipment Group – Afloat (CEG-A) maintains all the Army's prepositioned stocks afloat (12 ships) forwards deployed combat equipment assets & refurbishes them as needed - *at the dock*
  - 841<sup>st</sup> Transportation Battalion plans & executes ship loading/unloading configurations, staging and sequencing

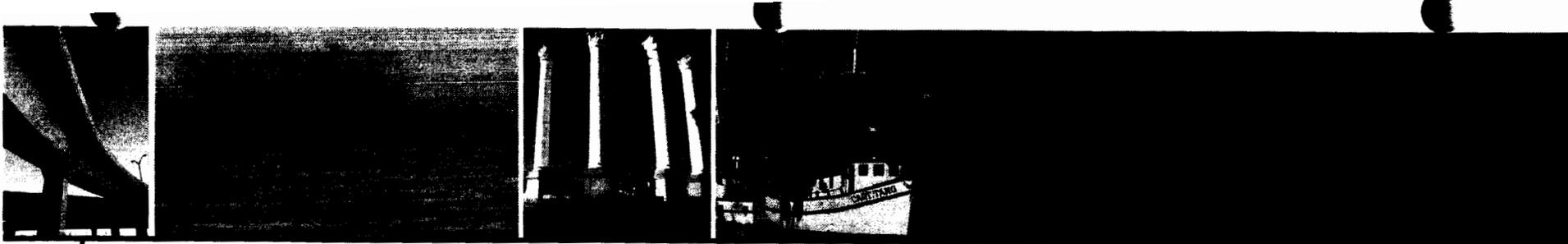
### Accomplishments

- OIF demanded a surge of equipment shipments, loading 110 ships with 60,000 pieces of equipment, using a robust intermodal infrastructure – 9,500 rail cars and 18,000 tractor trailers
- All CEG-A ships & equipment were deployed & engaged on Operation Iraqi Freedom

### Unique Capabilities

- Co-location of these Army units at NWS enhances the effective use of the East Coast's only military port for equipment and access to the second largest commercial port in surge situations
- 841<sup>st</sup> Transportation Battalion is the busiest military terminal battalion in the Army

*Projecting logistics power in support of any contingency*



## Charleston Air Force Base

### Mission

- Provides military airlift capability, operating 53 C-17 aircraft, free from local flight restrictions, only C-17 special operations capability – unit of choice for difficult missions

### Accomplishments

- For Operation Iraqi Freedom, 60% of channel cargo airlifted went through Charleston AFB
- In response to weather-imposed damage to Dover AFB in February 2003, CAFB tripled their throughput to accommodate mission requirements

### Unique Capabilities

- Co-location with Charleston International Airport links equipment suppliers to military through commercial airlift infrastructure (e.g., FedEx)
- Absence of operational or training restrictions from air traffic, encroachment or safety limits at both Charleston & the North Field Auxiliary Training Site
- CONUS “crown jewel” airlift training facility for Third World realism & special forces operations capability
- Proximity of Charleston Air Force Base to Army rapid deployment units for training & crisis operations

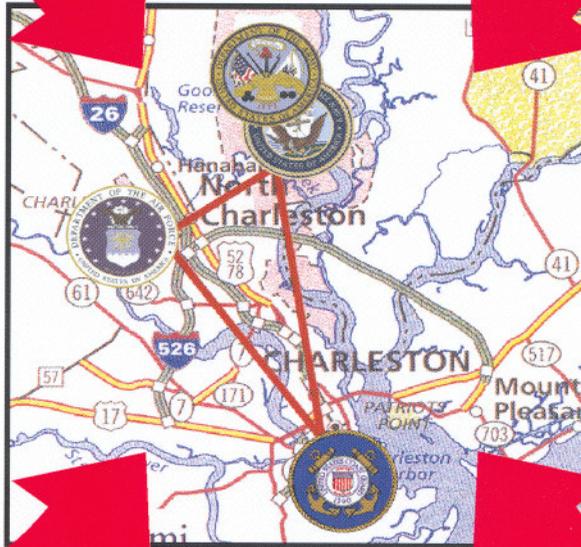
*World's premier provider of airlift services*

<u>Comparison of Select Costs of Doing Business:</u>	Charleston SC MSA	Norfolk VA MSA	San Diego CA MSA	Washington DC MSA	Boston MA MSA	Monmouth-Ocean MSA NJ
<u>Wages:</u>						
All occupations, avg hourly	\$15.38	\$16.24	\$18.81	\$22.40	\$22.68	\$18.78
avg annual	\$31,980	\$33,790	\$39,130	\$46,600	\$47,170	\$39,050
Management occupations, avg hourly	\$31.57	\$37.44	\$44.43	\$44.01	\$46.87	\$46.69
avg annual	\$65,670	\$77,880	\$92,420	\$91,550	\$97,480	\$97,110
Info Technology/Mathematical occupations, avg hourly	\$22.60	\$26.85	\$33.19	\$31.74	\$35.37	\$37.72
avg annual	\$47,000	\$55,860	\$69,040	\$66,020	\$73,570	\$78,450
Engineering/Architecture occupations, avg hourly	\$24.81	\$27.65	\$32.35	\$33.57	\$32.74	\$32.45
avg annual	\$51,600	\$57,510	\$67,290	\$69,830	\$68,100	\$67,510
<i>Source: US Bureau of Labor Statistics, Metropolitan Area Occupational Employment and Wage Estimates Nov 2003 Survey.</i>						
<u>Housing and Cost of Living:</u>						
Overall Index, baseline=100	97.3	102.1	144.8	140.0	135.4	129.1
Housing Index, baseline=100	88.9	104.4	216.1	196.4	178.5	156.5
Avg price, newly constructed 2400 sq ft home	\$229,315	\$266,775	\$597,641	\$505,428	\$466,429	\$415,994
Avg monthly rent, 2 bedroom 2 bath apartment	\$726	\$838	\$1,424	\$1,560	\$1,408	\$1,199
<i>Source: 3rd Qtr 2004 ACCRA Cost of Living Index, www.coli.org.</i>						
<u>State Corporate Income Tax:</u>	5%	6%	8.84%	DC: 9.975%, VA: 6%, MD: 7%	9.5%	N: 37129%
<i>Source: Tax Foundation, www.taxfoundation.org.</i>						
Number of Contractors in Charleston	7,000					
<u>Cost Comparisons Between Locations</u>						
Contractor Payroll Based on Avg. Annual Salary for all Occs.	\$223,860,000	\$236,530,000	\$273,910,000	\$326,200,000	\$330,190,000	\$273,350,000
Difference Between Charleston and Other Locations		\$12,670,000	\$50,050,000	\$102,340,000	\$106,330,000	\$49,490,000
Contractor Payroll Based on Avg. Annual Salary for Mgmt. Occs.	\$459,690,000	\$545,160,000	\$646,940,000	\$640,850,000	\$682,360,000	\$679,770,000
Difference Between Charleston and Other Locations		\$85,470,000	\$187,250,000	\$181,160,000	\$222,670,000	\$220,080,000
Contractor Payroll Based on Avg. Annual Salary for IT/Math Occs.	\$329,000,000	\$391,020,000	\$483,280,000	\$462,140,000	\$514,990,000	\$549,150,000
Difference Between Charleston and Other Locations		\$62,020,000	\$154,280,000	\$133,140,000	\$185,990,000	\$220,150,000
Contractor Payroll Based on Avg. Annual Salary for Eng./Arch Occs	\$361,200,000	\$402,570,000	\$471,030,000	\$488,810,000	\$476,700,000	\$472,570,000
Difference Between Charleston and Other Locations		\$41,370,000	\$109,830,000	\$127,610,000	\$115,500,000	\$111,370,000

# Joint Transportation, Logistics, Engineering & Training Complex

## Multi-Service Usage

- NAVY
  - Naval Weapons Station
  - SPAWAR Systems Center-Charleston
  - Naval Facilities Engineering Command
  - Nuclear Power Training Command/Unit
  - Mine Assembly Operation
  - Military Brig
  - Ordnance
  - Hospital
  - Reserve Training
- AIR FORCE BASE
  - 437th Airlift Wing (Active)
  - 315th Airlift Wing (Reserve)
  - Air Force Combat Camera
- ARMY
  - Surface Deployment & Distribution Command
  - Army Preposition Cargo
  - Corps of Engineers
- MARINES
  - Reserve Training Center
- HOMELAND SECURITY
  - US Coast Guard
  - Federal Law Enforcement Training Center

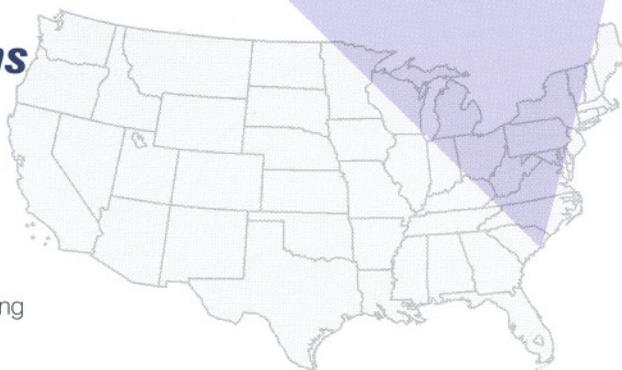


## Multi-Mission Support for National Security

- Strategic Location
- Major National & DOD Seaport
- Essential Airlift Capabilities, Both Defense & Commercial
- Excellent Rail & Highway Intermodal Facilities & Services
- Major Intermodal Rapid Deployment Transportation Hub

## Technically Advanced Operations

- Significant Global C4ISR Nodal Connectivity
- State-of-the-Art Labs, Platforms & Facilities
- Highly Experienced & Effective Scientists, Engineers, Support & Operational Personnel
- DOD Choice for Facilities Engineering
- Home of C-17 - Most Advanced Military Transport
- National Technology Asset



## Efficient & Unique

- Joint Use Hub for Multi-Service Prepositioning
- Most Efficient Navy Warfare/Systems Center
- Unencumbered Operational & Training Environments
- Room for Cost-Effective Expansion Well Into the Future
- Economic Contributor to National Import/Export DOD Warfighting Mobility & Technologies, Homeland Security, etc.

**Charleston, South Carolina**

**Strategic Location – Military Value**

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