DCN: 11596

Congress of the United States
Washington, DC 20515

August 15, 2005

BRAC Commission

AUG 19 2005

Received

The Honorable Anthony Principi
Chairman, Base Realignment and Closure Commission
2521 South Clark Street Suite 600
Arlington, VA 22202

Dear Chairman Principi:

We would like to supplement the testimony we provided at the hearing before you on August 10, 2005, concerning the Naval Air Station in Brunswick, Maine. In particular, we want to bring to your attention information about a significant homeland security threat and the role Brunswick plays in countering this clear and present threat. This information was developed in recent testimony before the Senate Homeland Security and Governmental Affairs Committee, of which Senator Collins is chair.

In testimony before that Committee, senior government officials and homeland security experts have highlighted the threat posed to our nation's seaports from a so-called "Trojan horse" - an ocean-going cargo container carrying a weapon of mass destruction.

In testimony on May 26, 2005, before the Permanent Subcommittee on Investigations of the Homeland Security and Governmental Affairs (a copy of which is attached), Robert C. Bonner, the Commissioner of U.S. Customs and Border Protection, highlighted the significance of this threat:

> "The fact is that, today, the greatest threat we face to global maritime security is the potential for terrorists to use the international maritime system to smuggle terrorist weapons . . . into a targeted country.
>
> "If even a single container were to be exploited by terrorists, the disruption to trade and national economies would be enormous. In May 2002, the Brookings Institution estimated that costs associated with United States port closures from a detonated terrorist weapon could amount to $1 trillion from the resulting economic slump and effects upon our ability to trade.
>
> "Clearly, the risk to international maritime cargo demands a robust security strategy that can identify, prevent and deter threats, at the earliest point in the international supply

> chain, before arrival at the seaports of the targeted country. We must have a cohesive national cargo security strategy that better protects us against the threat posed by global terrorism without choking off the flow of legitimate trade that is so important to our economic security, to our economy, and, to the global financial system."

At the March 9, 2005, hearing before the full Senate Committee on Homeland Security and Governmental Affairs, DHS Secretary Michael Chertoff emphasized this same threat, stating, "The worst thing would be this: to have a program for reliable travel or reliable cargo that was insufficiently robust so that people could sneak in and use it as a Trojan horse. That would be the worst of all worlds."

In additional testimony before the Committee on Governmental Affairs on March 20, 2003, titled, "Cargo Containers: The Next Terrorist Target?" former Coast Guard Commander Stephen Flynn made similar statements about the existence of this threat, and its potentially devastating consequences. He stated, "A modest investment by a terrorist could yield billions of dollars in losses to the U.S. economy by shutting down-even temporarily-the system that moves 'just in time' shipments of parts and goods." A copy of this hearing transcript also is attached.

This real and high-consequence threat requires a strong and well-thought-out national response. Part of that response must include the capability to survey, interdict, and, if necessary, destroy a vessel carrying such a weapon of mass destruction before it reaches our shores.

Brunswick Naval Air Station's location and its assets play a vital role in our nation's strategic response to this threat. The presence of P-3 Orion aircraft, on alert at the base and on patrol over the North Atlantic, is a highly visible deterrent to terrorist activity at sea. Strategically placed near the north Atlantic shipping lanes, Brunswick also enables efficient maintenance of maritime domain awareness, threat detection, interdiction, and if necessary, elimination of the threat with onboard Maverick missiles or other weapons.

The P-3's mission includes surveillance at sea or over land. Its long range and long loiter time have proved invaluable assets, as it can view the battlespace and instantaneously provide that information to U.S. Northern Command, the Navy, or ground troops. The P-3 has an avionics system that coordinates navigation information and accepts sensor data inputs for tactical display and storage. Additionally, this aircraft can carry a mixed payload of weapons internally and on wing pylons.

Brunswick is strategically located adjacent to the great circle routes for ships crossing the North Atlantic, making it critical for surveillance of ships coming from Europe, the Mediterranean, and the Middle East. Indeed, its proximity to major population centers, combined with its ability to support every aircraft in the DoD

inventory, makes Brunswick essential across the full range of homeland defense operations and contingencies.

Maritime patrol assets from Brunswick will continue to be needed to locate and monitor ships in the North Atlantic, including those potentially carrying weapons of mass destruction, cruise missiles, or other threats to our shores. Maritime Domain Awareness is a key component of homeland defense. Properly based Maritime Patrol and Reconnaissance Aircraft are essential to this increasingly important mission.

Response time and endurance on-station are critical in maritime patrol operations, and the location of a maritime patrol aircraft base is critical to those capabilities. The removal of full-time, operationally ready maritime patrol assets from the northeast would diminish our ability to counter the Trojan Horse threat and reduce Maritime Domain Awareness, leaving our nation vulnerable. It is a move that would increase the risk of failure in the defense of our homeland, a mission in which even a single failure could be catastrophic.

We appreciate the opportunity to share this hearing testimony with you. If we can be of further assistance, please do not hesitate to contact us.

Sincerely,

JOHN E. BALDACCI
Governor of Maine

OLYMPIA J. SNOWE
United States Senator

SUSAN M. COLLINS
United States Senator

THOMAS H. ALLEN
United States Representative

MICHAEL H. MICHAUD
United States Representative

DCN: 11596

DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION
2521 South Clark Street, Suite 600
Arlington, VA 22202
Telephone: 703-699-2950

July 1, 2005

You will find enclosed a letter that I sent today to the Secretary of Defense. Based upon the data provided by the Department of Defense, the facts we gathered during our site visits and regional hearings, and comments we received from the public, the Commission believes it necessary to ask the Secretary of Defense to provide an explanation to questions posed in the enclosure to my letter.

Please be assured that the Commission has not decided to close or realign any installations. Indeed, the Defense Base Closure and Realignment Act of 1990 states that before the Commission can even consider making any changes in the Secretary of Defense's BRAC recommendations to add military installations for closure or realignment, it must seek an explanation from the Secretary on the reasons why he did not include such installations in his May 13 list.

We are in the early stages of a multi-step process. Our request of the Secretary is merely for additional data and analysis so that the Commission will be more fully and broadly informed before deciding whether or not to formally consider adding installations to his list

On July 19, the Commission will consider additions to the Secretary's list in open session. As you are aware, seven or more Commissioners must support adding an installation to the Secretary's list for consideration followed by at least two Commissioners visiting each of the installations in question and public hearings conducted regarding them.

At the Commission's final deliberations the week of August 22, the vote of at least seven Commissioners would be required to effect any change in the Secretary's recommendations.

I respectfully request your assistance in advising the communities concerned that this is a very preliminary stage of the statutory process. The Commission is inquiring, not deciding. Even if, at the July 19, 2005 deliberation, seven Commissioners support formal consideration of an installation, the final outcome is far from certain. It will be critical that we obtain the public's advice, assessments, and analyses at follow-on public hearings to assist us in making the best possible decisions. They must know that the Commission retains an open mind of all matters and that we need their continuing assistance.

Sincerely,

Anthony J. Principi
Chairman

DCN: 11596

DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION
2521 South Clark Street, Suite 600
Arlington, VA 22202
Telephone: 703-699-2950

July 1, 2005

The Honorable Donald H. Rumsfeld
Secretary of Defense
1400 Defense Pentagon
Washington, D.C. 20301-1000

Dear Secretary Rumsfeld:

As you are aware, before the Base Closure and Realignment Commission can even consider making a change in your recommendations that would add military installations for closure or realignment, or expand a realignment, we are required by Section 2914(d)(3) of the Defense Base Closure and Realignment Act of 1990, as amended, to seek an explanation from you as to why such actions were not included on your May 13, 2005 list. A series of issues on installations on which we seek such explanation is enclosed. No deliberation will be made on whether to include any of these installations for further study of closure or realignment until the Commission's open hearing of July 19, 2005. Therefore, we would greatly appreciate receipt of your explanation no later than July 18th.

In addition, we invite you or your representative to elaborate on these explanations at a public hearing to be held in the Washington, D.C. area at 8:30 a.m. on July 18, 2005.

If, at the July 19 hearing, seven or more Commissioners support adding an installation to your list for consideration, at least two Commissioners will visit each of the installations added to your list and public hearings will be conducted regarding them. While this is a requirement of law, the Commission's view is that such public hearings are not only mandatory, but also highly desirable.

At the Commission's final deliberations during the week of August 22, the vote of at least seven Commissioners will be required to effect any change in your recommendations that would close or realign an installation that you did not recommend for such closure or realignment, or expand a realignment that you recommended.

Your assistance in complying with this stringent timetable will be greatly appreciated.

Sincerely,

Anthony J. Principi
Chairman

Enclosure

1. MARINE CORPS RECRUIT DEPOT SAN DIEGO, CA

ISSUE:

- Why was Marine Corps Recruit Depot (MCRD) San Diego, CA, not closed and consolidated with Marine Corps recruit training at MCRD Parris Island, SC?

ISSUE BACKGROUND:

- The Marine Corps operates two stand-alone recruit depots -- one on each coast. Consolidation of all recruit training to MCRD Parris Island generates training efficiencies, reduces excess capacity, and saves recurring costs due to fence-line closure of MCRD San Diego, and may generate offsetting revenues due to potential commercial development after a DoD property transfer. Consolidating recruit training at one location may theoretically increase operational risks; however, the Department of Navy and Air Force have successfully implemented similar transformational options experiencing little or no actual risk to recruit training while maintaining a surge capability. Military value of MCRD San Diego is lower than MCRD Parris Island partially due to encroachment and land constraints.

ASSOCIATED DOD RECOMMENDATIONS:

- None

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2. NAVAL SHIPYARD PEARL HARBOR, HI

ISSUE:

- Why was the Naval Shipyard Pearl Harbor, HI, not closed and the ship depot repair function realigned to Naval Shipyard Norfolk, VA; Naval Shipyard Portsmouth, ME; and Naval Shipyard Puget Sound, WA?

ISSUE BACKGROUND:

- Four naval shipyards perform depot-level ship refueling, modernization, overhaul and repair work. There appears to be sufficient excess capacity in the aggregate across the four shipyards to close either Naval Shipyard Pearl Harbor or Naval Shipyard Portsmouth. Naval Shipyard Pearl Harbor is less efficient than Naval Shipyard Portsmouth, according to Department of Navy data and additional savings could be found from reduced unit costs at the receiving shipyards because of a higher volume of work. Naval Shipyard Pearl Harbor has low military value compared to other shipyards according to DoD analysis supporting the recommendation to close Naval Shipyard Portsmouth.

ASSOCIATED DOD RECOMMENDATIONS:

- DON-23: Close Naval Shipyard Portsmouth, ME

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3. NAVAL AIR STATION BRUNSWICK, ME

ISSUE:

- What considerations were given to a complete closure of Naval Air Station Brunswick, ME, and what were the driving factors in deciding on realignment?

ISSUE BACKGROUND:

- Closure would appear to reduce excess capacity, may save approximately four times more than DoD's realignment recommendation and could open land to State or community development to offset economic impact.

ASSOCIATED DOD RECOMMENDATIONS:

- DON-18: Realign Naval Air Station Brunswick, ME

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4. NAVY BROADWAY COMPLEX, SAN DIEGO, CA

ISSUE:

- Why was the Navy Broadway Complex, San Diego, CA, not considered for closure and realignment of existing functions to Naval Station San Diego, CA?

ISSUE BACKGROUND:

- Consolidating Navy activities in a more secure location at the Naval Station complex at 32nd Street could improve security and allow for future commercial development.

ASSOCIATED DOD RECOMMENDATION:

- None

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5. REALIGNMENT OF NAVAL MASTER JET BASE

ISSUE:

- What consideration was given to the realignment of the Master Jet Base located at NAS Oceana, VA, to Moody AFB, GA? Was movement of the assets assigned to Moody AFB, GA to Cannon AFB, NM, considered and if so, what were the driving considerations not to do so?

ISSUE BACKGROUND:

- Realigning the Master Jet Base at NAS Oceana, VA, to Moody AFB, GA, would appear to alleviate the severe encroachment which affects NAS Oceana training and operations as well as operations at the outlying field, Fentress OLF. Moody AFB, GA, would appear to have the necessary room for expansion and suffers less encroachment. Cannon AFB, NM, would appear to have ample space and facilities to accommodate any aircraft currently operating or planned for movement to Moody AFB, NM.

ASSOCIATED DOD RECOMMENDATION:

- AF-6: Realign Eielson AFB
- AF-32: Close Cannon AFB
- AF-35: Maintenance realignment from Shaw AFB
- E&T-14: Realignment of Undergraduate Pilot Training.

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6. GALENA AIRPORT FORWARD OPERATING LOCATION (FOL), AK

ISSUE:

- Was any consideration given to merging the missions of Galena FOL, AK, and Eielson AFB, AK? Why does the United States need to maintain two FOLs in Alaska, given the current national security environment and 20-year threat assessment?

ISSUE BACKGROUND:

- Galena is one of two FOLs in Alaska that serve as alert bases for air intercept aircraft in support of North American Aerospace Defense Command (NORAD) missions. The requirement for maintaining two FOLs in Alaska may no longer be valid. The mission could be accomplished by maintaining one FOL and two Air Force bases in Alaska.

ASSOCIATED DOD RECOMMENDATIONS:

- AF-6: Eielson AFB, AK; Moody AFB, GA; and Shaw AFB, GA
- AF-7: Kulis Air Guard Station, AK; and Elmendorf Air Force Base, AK
- AF-18: Mountain Home Air Force Base, ID; Nellis Air Force Base, NV; and Elmendorf Air Force Base, AK
- AF-43: Ellsworth Air Force Base, SD; and Dyess Air Force Base, TX

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7. POPE AIR FORCE BASE, NC

ISSUE:

- What considerations drove the recommendation to realign, rather close Pope AFB NC, under Fort Bragg, NC? Are the joint operational synergies that exist between the XVIII Airborne Corps and the 43rd Airlift Wing/23rd Fighter Group able to be replicated from other locations?

ISSUE BACKGROUND:

- DoD appears to have determined that much of the benefits of the collocation of the joint forces that will operate together (CAS aircraft, operational planning staffs) are outweighed by the ability to schedule support as necessary through third parties.

ASSOCIATED DOD RECOMMENDATIONS:

- USA-8: Fort Gillem, GA
- USA-8: Fort McPherson, GA
- AF-35: Pope Air Force Base, NC, Pittsburgh International Airport Air Reserve Station, PA; and Yeager Air Guard Station, WV
- H&SA-35: Create Joint Mobilization Sites

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8. GRAND FORKS AIR FORCE BASE, ND

ISSUE:

- What considerations drove the recommendation to realign rather than close Grand Forks AFB, ND? What is the number of UAVs planned for assignment to Grand Forks AFB, ND, and what is the timing of the potential deployment?

ISSUE BACKGROUND:

- While there is no "emerging mission" programmed within the BRAC timeline (2006-2011), there are indications that the Air Force is considering assigning UAVs to Grand Forks AFB, ND.

ASSOCIATED DOD RECOMMENDATIONS:

- AF-37: Grand Forks Air Force Base, ND

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9. AIR NATIONAL GUARD

ISSUE:

- Were the Adjutants General and Governors of the States consulted in the re-allocation of aircraft, personnel, facilities and missions from their states? What impact does the realignment of the ANG have on the homeland defense and homeland security missions?

ISSUE BACKGROUND:

- Many of the Air Force's recommendations address Air National Guard installations. While only four of these installations will completely close, many Guard installations will lose aircraft and personnel leaving only an "expeditionary combat support" unit remaining, with several states losing their entire flying missions. Many of these aircraft will relocate to other locations, which may negatively impact personnel recruiting and retention as well as State and Homeland Security missions.

ASSOCIATED DOD RECOMMENDTION:

- Various

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10. DEFENSE FINANCE ACCOUNTING SERVICE

- DFAS Buckley Annex, CO
- DFAS Columbus, OH
- DFAS Indianapolis, IN

ISSUE:

- Why were keeping DFAS Buckley Annex, CO, DFAS Columbus, OH, and DFAS Indianapolis, IN, open and closing the remaining DFAS sites the only scenario

considered? Why did DoD not consider other options, which could have avoided military construction costs and possibly produced a more cost effective option?

ISSUE BACKGROUND:

- Closing or realigning these installations may reduce operating and sustainment costs, balance mission and strategic redundancy requirements, eliminate excess capacity and avoid closing other DFAS installations that provide a lower locality pay and have an existing infrastructure for expansion without military construction or additional leasing.

ASSOCIATED DOD RECOMMENDATION:

- HSA-37: Defense Finance & Accounting Service

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11. PROFESSIONAL DEVELOPMENT EDUCATION

- Naval Postgraduate School Monterey, CA
- Defense Language Institute Monterey, CA
- Air Force Institute of Technology Wright Patterson AFB, OH

ISSUE:

- What consideration was given to the closure or realignment of the Air Force Institute of Technology at Wright Patterson AFB, OH, and the Defense Language Institute at Monterey, CA, with Naval Postgraduate School at Monterey, CA, to create a consolidated professional development education center?

ISSUE BACKGROUND:

- Consolidating the Professional Development Education currently provided by the Air Force Institute of Technology, the Naval Postgraduate School, and the Army's Defense Language Institute would provide significant savings and efficiencies to the Department of Defense by (1) eliminating redundant support structure for advanced education, (2) reducing infrastructure; and (3) consolidating command and instructional staff.

ASSOCIATED DOD RECOMMENDATIONS:

- None

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12. JOINT MEDICAL COMMAND HEADQUARTERS

- Navy Bureau of Medicine, Potomac Annex, DC
- Air Force Medical Command, Bolling AFB, DC
- TRICARE Management Authority, Leased Space, VA
- Office of the Army Surgeon General, Leased Space, VA

ISSUE:

- What consideration was given to establishing a Joint Medical Command Headquarters, through collocation of disparate Department of Defense Surgeons General, at the National Naval Medical Center, Bethesda, MD?

ISSUE BACKGROUND:

- Such a consolidation could eliminate 166,000 square feet of leased space within the National Capitol Region and enable the closure of the Potomac Annex, DC. The National Naval Medical Center, MD, has a higher military value ranking than present locations. Establishing a Joint Medical Command Headquarters would take advantage of the transformation of legacy medical infrastructure proposed in recommendation MED-4, which establishes the Walter Reed National Military Medical Center, Bethesda, MD.

ASSOCIATED DOD RECOMMENDATIONS:

- MED-4: Walter Reed National Military Medical Center, Bethesda, MD
- TECH-5: Co-locate Extramural Research Program Managers

DCN: 11596

Erenn Kiriaell
21 Hudon Road
Lisbon, ME 04250

26 May 2005

Dear Chairman Principi,

I very much appreciate the important work you and the Commission are doing. The security and defense of our country are essential. DoD can only make recommendations within their span of control. Integrating DoD's recommendations and community, state and regional concerns is extremely important. Observing the testimony from DoD officials, the variables and metrics used to make recommendations for closure, realignment and gain has been very informative. I appreciate the tremendous amount of work DoD has accomplished.

I am respectfully asking you to keep Brunswick Naval Air Station fully operational, for the national security, homeland defense and maritime surveillance of the northeastern region of the US. I find it challenging to believe that Brunswick NAS is simultaneously recognized for its strategic value (rationale for realignment) and yet has little military value. As a military retiree and citizen, I am quite concerned about the realignment of Brunswick NAS, essentially transferring all its aircraft and active duty military to Jacksonville Naval Air Station (JAX NAS). At minimum, how is maritime surveillance of the North Atlantic and northeastern US Atlantic to be conducted?

I realize there are many intricacies to DoD/DoN Transformation plans, and while moving BNAS to JAX NAS may fit within a particular opinion of that Transformation model, it does not appear to take into account the impact on National Security in the Northeast Region. Brunswick Naval Air Station is the last military airfield remaining in the Northeast region with a population of over 48 million taxpaying citizens; it serves a truly important role in our national security. It has played an important part in Operations Enduring Freedom, Iraqi Freedom, Asian and Indian Tsunami Relief. Ironically, during hurricane season, JAX NAS P3 squadrons evacuated to Brunswick NAS. Ironically as well, NAS Brunswick is the only Naval Air Station in the US that can support the P-3 replacement aircraft, the multi-mission maritime aircraft (MMA), and any other base will require millions of dollars to bring them up to standards. With realignment the proverb, "use it or lose it" seems to apply, without adequate use and continued maintenance, the millions of taxpayer dollars already invested to modernize Brunswick NAS will be wasted. *Realignment may make it a candidate for a Golden Fleece award.*

Up to now, our government has wisely chosen to increase funding for constructing new facilities (nearly completed) making Brunswick NAS capable of supporting all manned and unmanned aircraft, domestic and international (including Air Force One), across the full range of Homeland Defense operations and contingencies. Brunswick NAS has incredible potential for multi-mission maritime aircraft (MMA), patrols, interdiction, and future operations. As a comprehensive northeast homeland joint defense and security installation it can support current and future operational and training capabilities on land, sea and air. Pending future capabilities include: Multi-mission maritime aircraft basing and support center, armed forces reserve center, maritime interdiction center, aerial refueling master base, fighter squadron basing and support, special warfare center of excellence, NASB is well prepared for the future.

ADM Clark testified about "closing Oceana NAS that he considered moving all of its 240 odd jets to an Air Force base. Clark said leaders concluded that the alternatives were too far from

the East Coast or would cost too much." Navy Times. May 30, 2005, pg 15. Perhaps he couldn't see far enough north to Brunswick NAS, ME.

Brunswick NAS is crucial to current and future national security, and homeland defense, and maritime surveillance and interdiction operations. It is immediately adjacent to all major sea lanes in the North Atlantic, and pathways of international flights. BNAS has more than 63,000 square miles of unencumbered airspace for training and exercise missions. Briefly, Brunswick NAS has; versatile, extensive modern facilities, including a new hangar designed specifically for MMA and BAMS and land with no encroachment issues, completely secured perimeter and outstanding force protection layout and capability, an established all-weather training area available for Special Forces and other units, easy access by all forms of transportation, since 9/11 the military value of the base supersedes anytime since WWII. NASB integrates active-duty and reserve forces, Joint national and international military activities including NATO, receiving and deploying over 100 Joint aircraft and over 850 personnel during recent missions. BNAS is integral to the shipbuilding efforts of Bath Iron Works, providing crew support through Supervisor of Shipbuilding (SUPSHIPS) Bath, Maine.

Reading through the BRAC volumes, "The DoN is very concerned about economic impact and has made every effort to fully understand all of the economic impacts its recommendations might have on local communities." However, the DoN used the Portland-South Portland-Biddeford, ME, Metropolitan Statistical Area for its Economic area comparison for Brunswick NAS. The Portland MSA has a population of about 333,500, with the 4266 jobs lost, the percentage is -1.3% (-.0127) loss. Using the Portland MSA significantly minimizes the true effect of BNAS job losses. The Brunswick-Harpswell-Bath-Topsham population represents a more accurate population to assess the 4266 lost jobs from realigning BNAS. With a population of approximately 44,777 and with 4266 jobs lost the percentage is -10% (-.095) jobs lost. In a rural state, with small communities a 10% jobs loss is significant.

With the uncertainty of the ongoing War on Terrorism our nation can not afford to make a mistake and lose, or "mothball" a strategic location and lose the current resources of NAS Brunswick as it will require significant reinvestment to revive the facilities and personnel resources will not easily be available if realignment occurs. The Brunswick, mid-coast Maine regional community strongly supports BNAS mission, personnel and their families. Mainers like other Americans take homeland security and defense of our nation seriously. I thank you for considering my request *to keep Brunswick Naval Air Station fully operational, protecting the national security, homeland defense and maritime surveillance of the northeast region of the US.*

Kind regards,

Erenn Kiriaell
CDR MSC USN (Ret)

DCN: 11596

NAVAL AIR STATION BRUNSWICK TASK FORCE – 2 JUNE 2005

NASB is a strategic asset of great military value - *recognized as such by the BRAC process*

- Strategic location
- Ideal under all BRAC criteria (airspace, facilities, no encroachment, low operating cost, ability to accommodate future total force requirements)

Realignment as proposed by the Navy/DOD contradicts and fails to leverage that military and strategic value to the Navy and the nation

- Fails to optimize the defensive posture of the Maritime Patrol Aircraft force
  - Homeland Defense mission for MPA *certain but still evolving*
    - Maritime Domain Awareness initiative under NORTHCOM
    - Under the President's Maritime Security Directive - Jan 05
    - Under the USN/USCG Capabilities Integration Roadmap (Navy N6/7) -Summer 05
    - Under the Proliferation Security Initiative

Realignment data from DOD shows a failure to include *any* mission requirements from NASB

- Even a small mission requirement extends the payback period from 4 years out to beyond 5 years

Realignment failed to consider upcoming Force Structure changes including the introduction of the Multi-Mission Maritime Aircraft (MMA) in 2012

- MMA will have no Intermediate Maintenance costs
- Intermediate maintenance savings are the *only* savings from realignment in the DOD case
- Eliminating these false savings post-MMA indicates that realignment will *never* reach payback

Realignment failed to consider alternative scenarios which *would* be cost-effective

- Introduction of MMA at Brunswick would eliminate 50% of the MILCON required at Jax by the realignment, and postpone the other 50%

Realignment improperly calculated the economic impact on the midcoast, the State, and New England

- Incorrect Metropolitan Statistical Area used by DOD
- Using correct statistics shows huge negative effects from removing 85% of NASB's active duty personnel (75% of the total NAS population)
  - Loss of $132M in direct payrolls
  - Unemployment would increase from 4.7% to between 10-11% based upon the indirect job losses resulting from realignment.

SUMMARY: *Realignment would degrade the defensive posture of the nation – it cannot be justified on a mission basis*

Realignment would not result in savings to the Navy – it cannot be justified on a financial basis

Realignment would have economic effects on the region and State which also cannot be justified

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Brief Biographies of NASB Task Force Members Presenting to BRAC Commissioners on June 2, 2005

Cdr. Richard (Rick) Tetrev, USN (Ret.)
Chairman, NASB Task Force

Cdr. Tetrev is a retired naval officer with over 26 years of service as both an enlisted man and an officer. He served three tours of duty in Brunswick beginning in 1978 with Wing 5, later as a department head in Patron 10 in the mid 80s, and finished his career as the Executive Officer of NASB. During the initial BRAC round he participated through his assignment in OPNAV as the Administrative Assistant to VADM Wm. D. Smith, USN Navy Programming, Planning, and Budgeting. In the 1993 and 1995 rounds he participated in Brunswick as he oversaw the data call process.

RADM Harry Rich, USN (Ret.)

RADM Rich was born in Searsport, Maine on January 2, 1926. He was raised in Union, Maine and graduated from Union High School in 1943. Eight days later, he joined the United States Navy. He attended Dartmouth College's Navy V-5 Program and later entered Flight Training where he was graduated in June of 1946. RADM Rich flew transport aircraft (DC-4's) in the Pacific and Berlin Airlifts. His squadron tours included the VR-8, VP-23, VP-8 and VX-4, and shipboard tours included the USS Intrepid (CVA11) and USS Wasp (CVS-18). Command Tours included VP-8, NAS Bermuda, Commander Patrol Wings Atlantic Fleet and Command Iceland Defense Force.
RADM Rich also attended George Washington University, where he received his BA & MS degrees, the National War College and the Naval War College. He retired to Maine in May of 1978.

Capt. Ralph J. Dean, USN (Ret.)

A native of Pittsburgh, Pennsylvania, Captain Dean is a graduate of the University of Pittsburgh with a degree in Civil Engineering, and also holds a Masters of Business Administration from Southern New Hampshire University. Commissioned an Ensign in 1974, he was designated a Naval Aviator in 1975, Patrol Plane Commander and Patrol Plane Mission Commander in 1978. He participated in numerous P-3 operations and deployments world-wide. He also served onboard the USS Saratoga, in the Pentagon, and in multiple command tours. Since 1976, Captain Dean has served numerous tours of duty at NAS Brunswick, including duty as Executive Director of the NAS.

Don Gerrish
Town Manager, Brunswick, ME

Don Gerrish is a Maine native and currently serves as the Town Manger for Brunswick, Maine, a position he has held for the past sixteen years. Prior to his service to the Town of Brunswick, he served as Town Manager of Gorham, Maine for ten years and has a total experience of thirty two years in municipal government. He has served as Past President of the International City County Managers Association. Don is a graduate of the University of Maine.

DCN: 11596

Furlow, Clarenton, CIV, WSO-BRAC

From: Joe Spata [joes@thepmagroup.com]
Sent: Tuesday, May 24, 2005 4:43 PM
To: Furlow, Clarenton, CIV, WSO-BRAC
Cc: Greg Hansen; Mark Magliocchetti; Glen Woods; Matt Miller
Subject: Maine NH Breakfast Group

CW,
Here is a list of who I expect tomorrow:

Maine
Sam Horton (Sen Snowe)
Mackenzie Eaglen (Sen Collins)
Todd Stein (Rep Allen)
Michael Brownlie (Rep Michaud)

New Hampshire
Frank Barca (Sen Gregg)
Andy Emerson (Rep Bass)
Michael Liles (Rep Bradley)

The PMA Group
Mark Magliocchetti (Oversight for Maine NH Congressional Relations)
Greg Hansen (Overall oversight for Maine BRAC)
Joe Spata (Portsmouth)
Glen Woods (Brunswick)
Matt Miller (DFAS Site) – Marilyn Waleski

Joe

Joe Spata
The PMA Group
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(703)415-0344 (W)
jspata@thepmagroup.com

C.O. Capt Whinney PAO Johnston.
Capt Mike Hewitt
(10 min)

DCN: 11596

County	UNEMPLOYMENT RATE				
	2000	2001	2002	2003	2004
Androscoggin County	3.5	3.9	4.3	4.8	4.2
Aroostook County	4.3	4.4	4.9	5.8	6.1
Cumberland County	**2.5**	**2.3**	**2.8**	**3.0**	**2.8**
Franklin County	5.2	6.4	5.4	6.2	6.0
Hancock County	4.1	4.5	4.5	5.0	5.3
Kennebec County	3.6	4.0	4.4	5.2	4.8
Knox County	2.8	2.7	2.9	3.9	3.2
Lincoln County	3.1	2.9	3.0	3.6	3.3
Oxford County	4.2	5.9	6.6	6.8	6.5
Penobscot County	3.8	4.1	4.5	6.0	5.5
Piscataquis County	5.4	6.6	7.1	8.2	6.6
Sagadahoc County	**2.8**	**3.2**	**3.6**	**3.8**	**3.6**
Somerset County	4.9	7.4	8.4	8.8	8.7
Waldo County	4.0	4.1	4.4	4.9	4.4
Washington County	6.1	8.0	8.9	9.6	8.6
York County	**2.7**	**3.5**	**4.6**	**4.9**	**4.1**
MSA Average	**2.7**	**3.0**	**3.7**	**3.9**	**3.5**
STATE Average	**3.9**	**4.6**	**5.0**	**5.7**	**5.2**

DCN: 11596

Economic Impact Report

This report depicts the economic impact of the following Scenarios:

DON-0138B: NAS Brunswick Realignment

The data in this report is rolled up by Action

As of: Tue Jul 12 13:06:32 EDT 2005

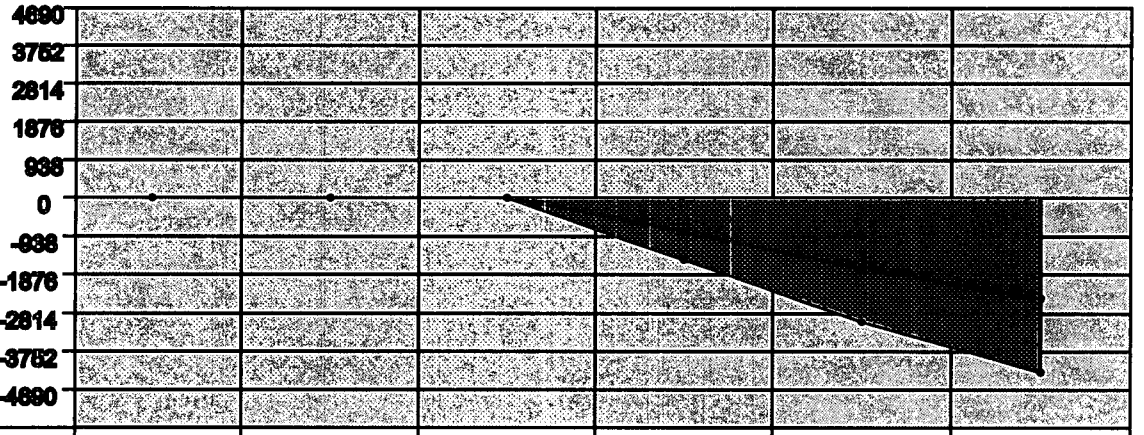
ECONOMIC IMPACT DATA

Scenario: NAS Brunswick Realignment
Economic Region of Influence(ROI): Portland-South Portland-Biddeford ME Metropolitan Statistical Area
Base: NAS BRUNSWICK
Action: NAS Brunswick Close

Overall Economic Impact of Proposed BRAC-05 Action:

ROI Population (2002):	500,314
ROI Employment (2002):	331,655
Authorized Manpower (2005):	3,275
Authorized Manpower(2005) / ROI Employment(2002):	0.99%
Total Estimated Job Change:	-4,266
Total Estimated Job Change / ROI Employment(2002):	-1.29%

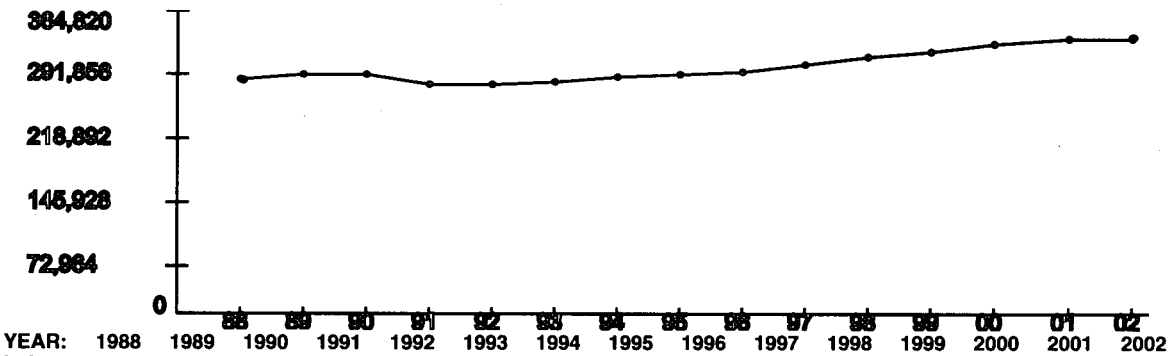
Cumulative Job Change (Gain/Loss) Over Time:



YEAR:	2006	2007	2008	2009	2010	2011
Direct Military:	-2	-8	-3	-820	-841	-843
Direct Civilian:	0	0	0	-5	-15	-41
Direct Student:	0	0	0	0	0	0
Direct Contractor:	0	0	0	-2	-8	-32
Cumulative Direct:	-2	-10	-13	-840	-1704	-2420
Cum Indir/Induc:	-2	-8	-10	-635	-1292	-1846
Cumulative Total:	-4	-18	-23	-1475	-2996	-4,266

Portland-South Portland-Biddeford ME Metropolitan Statistical Area Trend Data

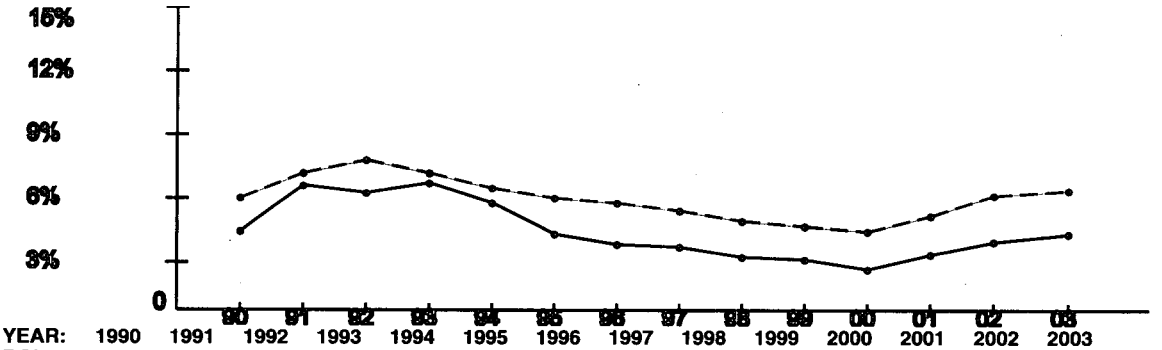
Employment Trend (1988-2002)



YEAR:	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Index:	1	1.02	1.01	0.97	0.98	0.98	1.01	1.01	1.03	1.06	1.09	1.12	1.15	1.17	1.17

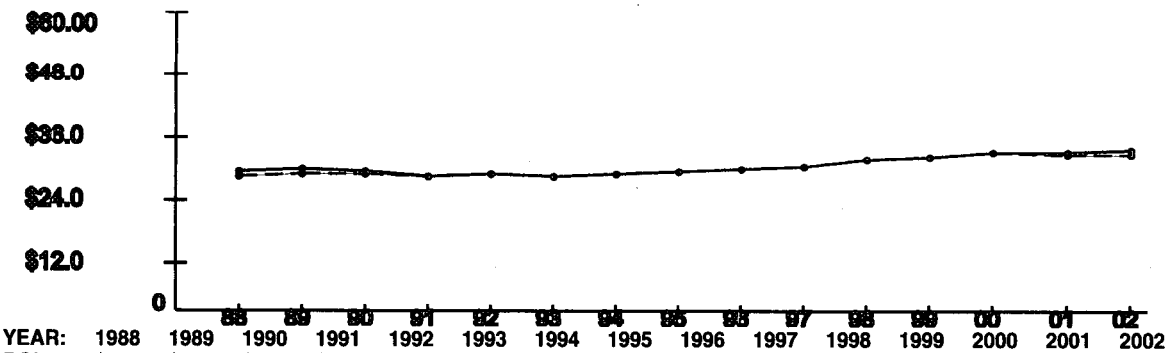
Represents the ROI's indexed employment change since 1988

Unemployment Percentage Trend (1990-2003)



YEAR:	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
ROI:	4.05%	6.31%	5.83%	6.33%	5.38%	3.85%	3.34%	3.31%	2.73%	2.57%	2.16%	2.85%	3.53%	3.82%
USA:	5.6%	6.83%	7.5%	6.91%	6.09%	5.59%	5.4%	4.94%	4.51%	4.21%	3.99%	4.74%	5.79%	5.99%

Per Capita Income x $1,000 (1988-2002)



YEAR:	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
ROI:	$28.18	$28.61	$28.18	$27.07	$27.3	$27.02	$27.37	$27.82	$28.37	$29.15	$30.57	$31.11	$31.83	$32.13	$32.4
USA:	$26.96	$27.48	$27.42	$26.87	$27.35	$27.18	$27.53	$27.86	$28.35	$29.04	$30.35	$30.86	$31.89	$31.72	$31.61

Note: National trend lines are dashed

DCN: 11596

As of: Tue Jul 12 13:06:32 EDT 2005

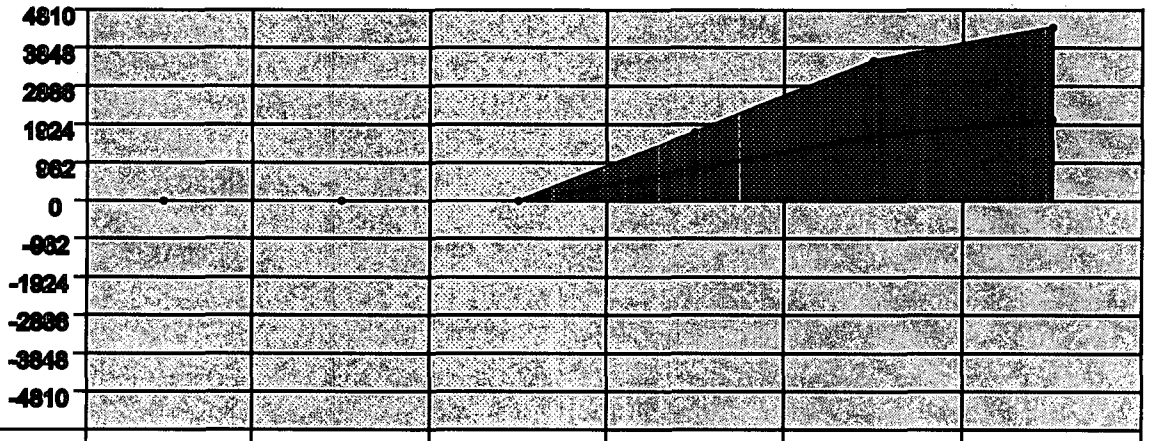
ECONOMIC IMPACT DATA

Scenario:	NAS Brunswick Realignment
Economic Region of Influence(ROI):	Jacksonville, FL Metropolitan Statistical Area
Base:	NAS JACKSONVILLE
Action:	NAS Jacksonville (Receiving)

Overall Economic Impact of Proposed BRAC-05 Action:

ROI Population (2002):	1,176,480
ROI Employment (2002):	727,765
Authorized Manpower (2005):	13,010
Authorized Manpower(2005) / ROI Employment(2002):	1.79%
Total Estimated Job Change:	4,373
Total Estimated Job Change / ROI Employment(2002):	0.6%

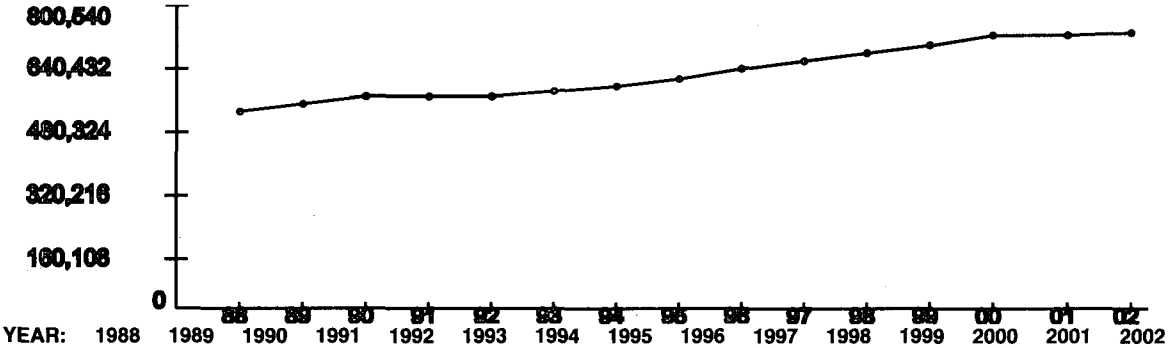
Cumulative Job Change (Gain/Loss) Over Time:



YEAR:	2006	2007	2008	2009	2010	2011
Direct Military:	0	0	0	812	820	339
Direct Civilian:	0	0	0	0	0	4
Direct Student:	0	0	0	0	0	0
Direct Contractor:	0	0	0	2	8	36
Cumulative Direct:	0	0	0	814	1642	2021
Cum Indir/Induc:	0	0	0	947	1910	2352
Cumulative Total:	0	0	0	1761	3552	4,373

Jacksonville, FL Metropolitan Statistical Area Trend Data

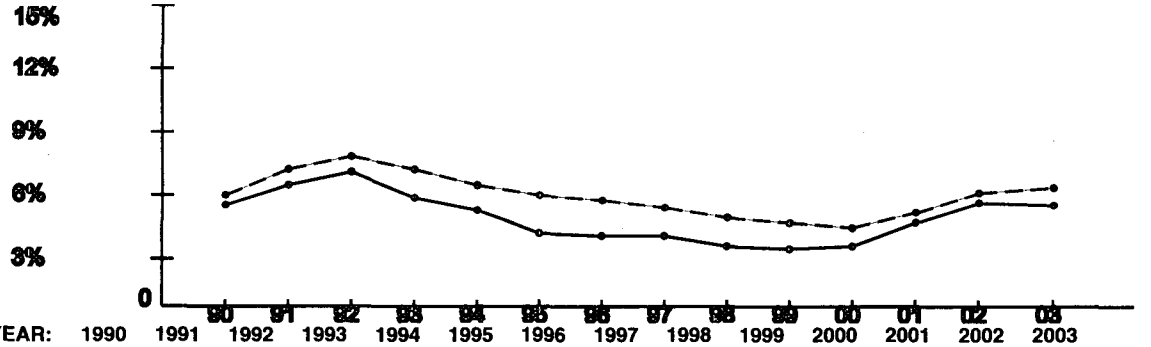
Employment Trend (1988-2002)



YEAR:	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Index:	1	1.03	1.07	1.07	1.07	1.09	1.12	1.16	1.21	1.25	1.29	1.32	1.37	1.38	1.39

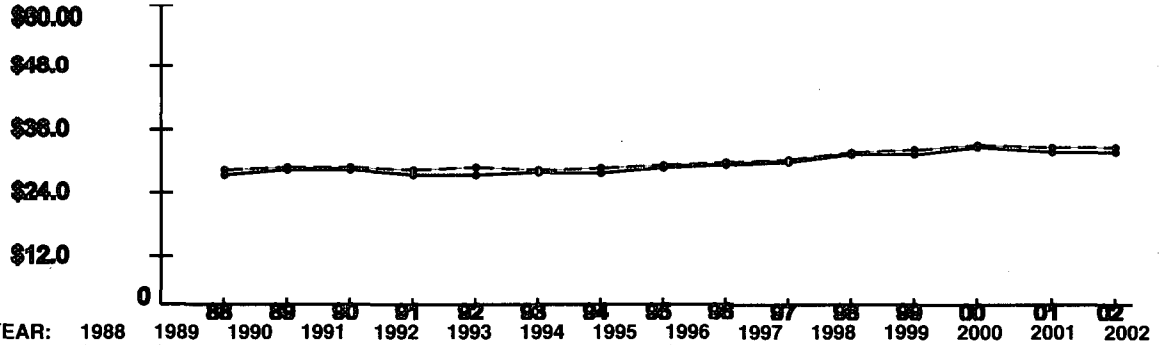
Represents the ROI's indexed employment change since 1988

Unemployment Percentage Trend (1990-2003)



YEAR:	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
ROI:	5.1%	6.13%	6.71%	5.55%	4.85%	3.72%	3.61%	3.62%	3.1%	2.97%	3.12%	4.25%	5.29%	5.18%
USA:	5.6%	6.83%	7.5%	6.91%	6.09%	5.59%	5.4%	4.94%	4.51%	4.21%	3.99%	4.74%	5.79%	5.99%

Per Capita Income x $1,000 (1988-2002)



YEAR:	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
ROI:	$26.12	$27.04	$26.87	$26.04	$26.15	$26.41	$26.69	$27.42	$27.82	$28.28	$29.85	$30.16	$31.46	$30.7	$30.72
USA:	$26.96	$27.48	$27.42	$26.87	$27.35	$27.18	$27.53	$27.86	$28.35	$29.04	$30.35	$30.86	$31.89	$31.72	$31.61

Note: National trend lines are dashed

DCN: 11596

DCN: 11596

Economic Impact Report

This report depicts the economic impact of the following Scenarios:

BRADD NV01: ADD1 - NAS Brunswick, ME

The data in this report is rolled up by Action

DCN: 11596

As of: Mon Jul 18 17:31:45 EDT 2005

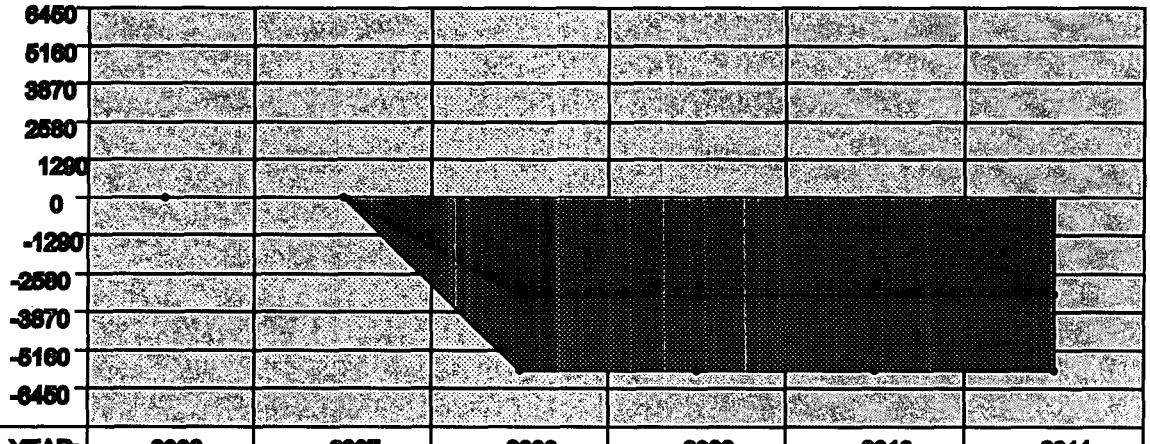
ECONOMIC IMPACT DATA

Scenario: ADD1 - NAS Brunswick, ME
Economic Region of Influence(ROI): Portland-South Portland-Biddeford ME Metropolitan Statistical Area
Base: NAS BRUNSWICK
Action: Closing NAS Brunswick

Overall Economic Impact of Proposed BRAC-05 Action:

ROI Population (2002):	500,314
ROI Employment (2002):	331,655
Authorized Manpower (2005):	3,275
Authorized Manpower(2005) / ROI Employment(2002):	0.99%
Total Estimated Job Change:	-5,865
Total Estimated Job Change / ROI Employment(2002):	-1.77%

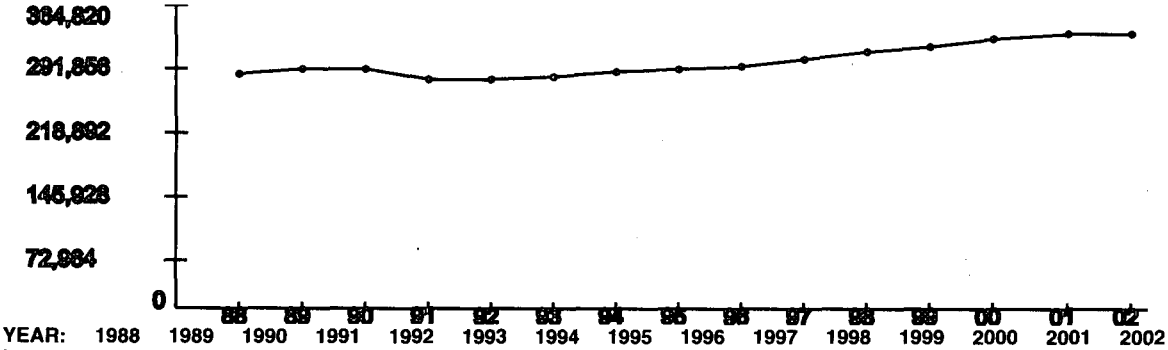
Cumulative Job Change (Gain/Loss) Over Time:



YEAR:	2006	2007	2008	2009	2010	2011
Direct Military:	0	0	-2880	0	0	0
Direct Civilian:	0	0	-395	0	0	0
Direct Student:	0	0	0	0	0	0
Direct Contractor:	0	0	0	0	0	0
Cumulative Direct:	0	0	-3275	-3275	-3275	-3275
Cum Indir/Induc:	0	0	-2590	-2590	-2590	-2590
Cumulative Total:	0	0	-5865	-5865	-5865	-5,865

Portland-South Portland-Biddeford ME Metropolitan Statistical Area Trend Data

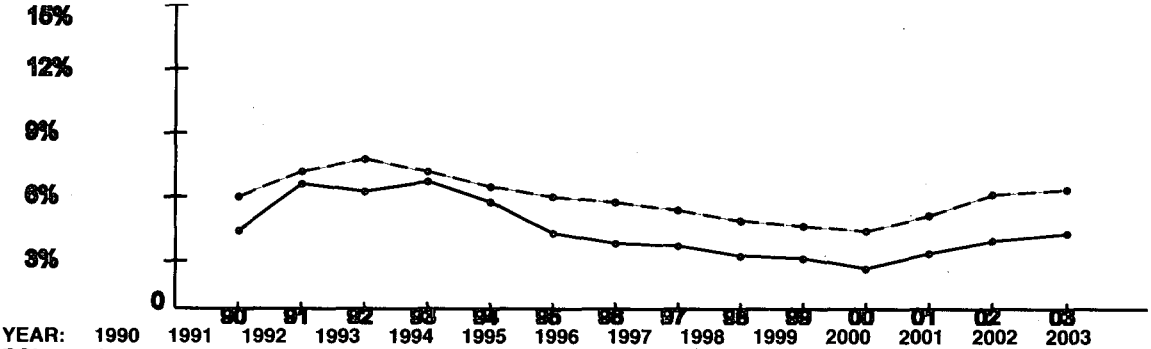
Employment Trend (1988-2002)



YEAR:	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Index:	1	1.02	1.01	0.97	0.98	0.98	1.01	1.01	1.03	1.06	1.09	1.12	1.15	1.17	1.17

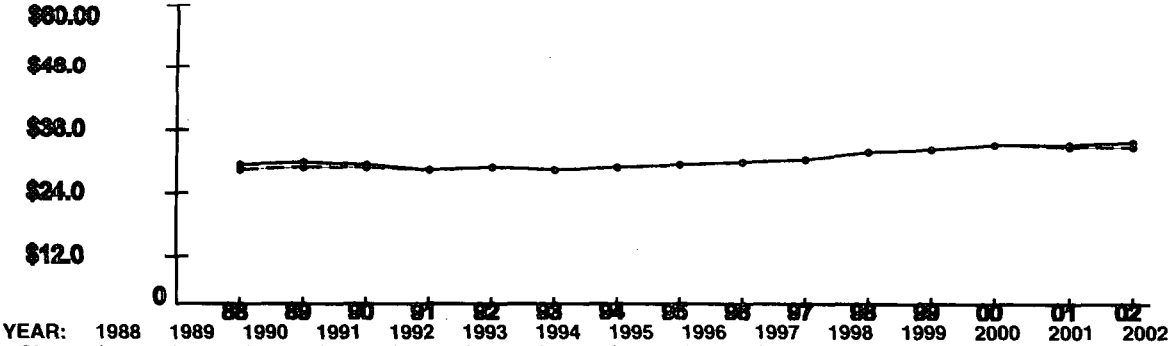
Represents the ROI's indexed employment change since 1988

Unemployment Percentage Trend (1990-2003)



YEAR:	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
ROI:	4.05%	6.31%	5.83%	6.33%	5.38%	3.85%	3.34%	3.31%	2.73%	2.57%	2.16%	2.85%	3.53%	3.82%
USA:	5.6%	6.83%	7.5%	6.91%	6.09%	5.59%	5.4%	4.94%	4.51%	4.21%	3.99%	4.74%	5.79%	5.99%

Per Capita Income x $1,000 (1988-2002)



YEAR:	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
ROI:	$28.18	$28.61	$28.18	$27.07	$27.3	$27.02	$27.37	$27.82	$28.37	$29.15	$30.57	$31.11	$31.83	$32.13	$32.4
USA:	$26.96	$27.48	$27.42	$26.87	$27.35	$27.18	$27.53	$27.86	$28.35	$29.04	$30.35	$30.86	$31.89	$31.72	$31.61

Note: National trend lines are dashed

DCN: 11596

Naval Aviation Excess Capacity and East Coast Maritime Patrol Aircraft: A Flawed Analysis

Issue: East Coast Naval Aviation excess capacity in the Maritime Patrol Aircraft Community is not as large as currently calculated..

Discussion: In a Secretary of Defense memorandum for the Secretaries of the Military Departments dated November 15, 2002, the Secretary stated that "At a minimum, BRAC 2005 must eliminate excess physical capacity."[1] The memorandum further states that "BRAC 2005 should be the means by which we reconfigure our current infrastructure into one in which operational capacity maximizes *both* warfighting capability and efficiency."[2] From this guidance, the Department of the Navy analyzed Aviation Operations using a capacity data call that was created to measure an installation's ability to house aviation squadrons and units while properly maintaining aircraft, providing ample airfield operating resources and training infrastructure, and ensuring sufficient support facilities.[3] What these capacity data calls failed to measure, however, were the conditions of many hangars that are currently considered either substandard or inadequate. When the Navy's existing Aviation Operations capacity is closely examined, it will be seen that many hangars today are actually planned for demolition in the near future which will reduce overall "excess capacity."

The principal capacity metric for Aviation Operations used by the Navy was the "Hangar Module." A Hangar Module was defined as the hangar space, line space, administrative space, operational space, and maintenance shop space required to house one aircraft squadron. Additionally, since actual hangar space is dependent on the type of aircraft to be housed in a particular hangar, data was collected for two different types of

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[1] Memorandum for Secretaries of the Military Departments dated November 15, 2002; Subject: Transformation Through Base Realignment and Closure; page 1.
[2] Memorandum for Secretaries of the Military Departments dated November 15, 2002; Subject: Transformation Through Base Realignment and Closure; page 1.
[3] DOD Base Closure and realignment Report to the Commission; Department of the Navy, Analyses and Recommendations (Vol. IV), page C-2.

hangars – Type I hangars, built to house carrier-based aircraft, and Type II hangars built to house larger aircraft, such as the P-3.[4] It should be noted that during the Department of the Navy's Analysis Group (DAG) meeting on 31 August 2004 concerns that the new Multi-mission Maritime Aircraft (MMA) and the C-40 (both Boeing 737 aircraft) did not fit into one of the two hangar module types was highlighted. A review of all DAG meeting minutes did not reveal any additional discussions concerning this discrepancy in hangar types for the MMA or C-40. It can only be assumed that the Navy erroneously considered that the C-40 and MMA aircraft can be housed in Type II hangars.

Volume IV (Department of the Navy, Analyses and Recommendations) of the DOD Base Closure and Realignment Report to the Commission states that the Navy's two recommendations for closure (NAS Atlanta and NAS Willow Grove) decreases excess capacity for Aviation Operations from 19% to 16%.[5] Not considered in this review of excess capacity are the future reductions of capacity due to the demolition of old, unusable hangars. For the East Coast Maritime Patrol community, the capacity reported through the data call process actually counted hangars that were graded either substandard or inadequate and never considered the fact that many of these hangars are scheduled for demolition.

Navy analysis determined that NAS Brunswick currently has 20 Type II Hangar Modules. At the time of the Navy's capacity data call two hangars with Service Facility Condition Codes of "Inadequate" were included in the total number of hangar modules. Since this data call, Hangar 3, which equated to 4 hangar modules, has been demolished and Hangar 1, which is another 4 hangar modules, is due to be demolished in FY06 due to failing rafters.[6] Reducing the available hangar modules at NAS Brunswick due to the demolition of Hangars 1 and 3 will leave this base with a capacity of only 12.

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[4] DOD Base Closure and realignment Report to the Commission; Department of the Navy, Analyses and Recommendations (Vol. IV), pages C-2 and C-3.

[5] DOD Base Closure and realignment Report to the Commission; Department of the Navy, Analyses and Recommendations (Vol. IV), page C-8

[6] BRAC Capacity Data Call, 7 January; Certified by: Anne Davis; Originating Activity: NAS Brunswick, ME; Date: 3/28/2005; page 72

Additionally, Navy analysis determined that NAS Jacksonville has a capacity of 20.5 Type II hangar modules. These hangar modules equate to nine different hangar structures with seven structures given a Service Facility Condition Code of "Substandard." Four hangars, Hangars 113, 114, 115, and 116, are to be demolished following the completion of the S-3 aircraft sundown plan in FY08. There four hangars must be demolished to provide ramp space prior to the arrival of the Multi-mission Maritime Aircraft (MMA), the follow on aircraft to the P-3, and are old and not suitable for the MMA. Hangars 113, 114, 115, and 116 represent eight hangar modules. There are also three other hangars at NAS Jacksonville with Service Facility Conditions Codes of "Substandard" that host the Navy's helicopter community. Several of these hangars are also to be demolished to make ready for the construction of new helicopter hangar facilities at Jacksonville.[7]

Finally, of the 20.5 hangar modules at NAS Jacksonville, only 7.5 modules are used by the P-3 and C-40 communities (Hangar 1000 – 5 modules; VP-30 hangar with 2.5 modules). None of these modules are capable of hosting the MMA or C-40 aircraft which are derivatives of Boeing's 737 aircraft. As a result, a new MMA hangar is planned to be built at NAS Jacksonville and major renovations will be needed to hangar 1000.

In summary, it can be seen from the above analysis that the excess capacity believed to exist at the two East Coast Maritime Patrol air bases will soon be greatly reduced due to the demolition of substandard and inadequate hangars. Capacity at NAS Brunswick has already been reduced 4 hangar modules with the demolition of Hangar 3 in December 2004. When Hangar 1 is demolished in FY06, the base capacity will be further reduced four additional hangar modules. The net result is a hangar capacity at NAS Brunswick of 12 hangar modules. At NAS Jacksonville, hangar capacity will be reduced as the S-3 aircraft community completes decommissioning is FY08. When hangars 113, 114, 115 and 116 are demolished to create ramp space for the introduction

[7] BRAC Capacity Data Call, 7 January; Certified by Anne Davis; Originating Activity, NAS Jacksonville, FL; 3/28/2005, page 87

of the MMA aircraft, excess capacity will be reduced by eight hangar modules. Capacity at Jacksonville will be further reduced as substandard hangars are demolished for the recapitalization of hangars for the helicopter community. Although new hangars will be built at Jacksonville for the MMA and for Navy helicopters, the demolition of old, substandard hangars will yield a net reduction in overall hangar capacity at the base. Thus, from this analysis it can be seen that the overall excess capacity within Naval Aviation is much less than currently calculated and the recommendations to consolidate all Navy MPA squadron at one air base should be carefully reconsidered.

DCN: 11596

Topic: Multi-Mission Maritime Aircraft (MMA) Site Survey, 21-24 March 2005, NAS Brunswick, ME

Background: The MMA Program (PMA 290) is preparing a series of Site Evaluation Reports (SER). The scope of this SER is to assess the potential of NAS Brunswick as a Main Operating Base (MOB). The first seven aircraft will be based at NAS Patuxent River for proof-of-concept testing. NAS Jacksonville is slated to house the Fleet Replacement Squadron and first East Coast MOB. This site survey was conducted to support the development of the SER for establishing a MOB at NAS Brunswick. (Site surveys will also be conducted of Kaneohe Bay, HI, Kadena AB, Misawa AB and Guam in June 2005, of Whidbey Island and Point Mugu in October 2005, and of Sigonella, Bahrain and Qatar in January 2006.)

Activities: On 21 March the Survey Team (Attachment 1) convened at NASB Public Works Office. The team was composed of representatives from PMA 290, PMA 205, CNI, Boeing, and Northrop Grumman. The team met with the PWO, Cdr. Molnar and DPWO, Tom Brubaker, for a brief on NAS Brunswick facilities. This was followed by an in brief by Dave Tuemler, PMA 290 to Capt Winneg, C.O. of NASB.

From 21-24 March the Survey Team operated following fairly closely the schedule of Attachment 2. An out-brief was held on 24 March with Capt Winneg and Cdr Craige.

Take-Aways:

- Summary: From an infrastructure perspective, Naval Air Station Brunswick is ready to support IOC 2013 and should be seriously considered as a site for one of the east coast Main Operating Bases. NASB requires low cost investment to support MMA IOC 2013.
- Airfield and Support Facilities:
    - Hangar 6 was assessed to be ready for MMA to move in to. The proposed 125 ft. wingspan can be accommodated in Hangar 6. The hangar may need to have hard points installed to support the increased weight of the MMA. Boeing engineers will offer a recommendation on this. Hangar 6 BOD was March 2005. Facility cost was $34M.
    - Hangar 5 was built in the 1980's. Initially, this hangar would be used to support P-3 squadrons. This hangar could be modified to support MMA by increasing the depth of the hangar to accommodate the length of the aircraft and increasing the height of hangar doors to accommodate the tail height.
    - A new control tower will be completed in Spring 2005 at a cost of $7.9M. SPAWAR is scheduled to install new equipment in late summer. The new control tower will be operational by Fall 2005.
    - Parallel runways, 8,000 l.f.
    - NASB offers sufficient parking apron for basing 18-30 aircraft. At peak loading, however, aircraft may need to be towed in and out to park aircraft closer to each other than the required separation of 650 ft between aircraft.
    - Blast Fence construction will be required.
- Maintenance Facilities: Hangar 6 has sufficient space for the 146 contractor/maintainers that will be assigned to the site. There may be some need for AIMD support, but it is expected to be minimal.
- Supply Support Facilities: Warehouse space required by Boeing is available in B-294. Space for Boeing can be segregated within B-294. Some modification to the loading ramp

will be required, but NASB has already programmed this modification for current operations. There will be a reduced need for warehouse space because Boeing will provide "just in time delivery" of parts.

- Training Facilities: Existing facilities cannot be modified to accommodate the Follow-On Operational Trainers. A MILCON will be required for construction of a facility to house the Follow-On Trainers. This facility must be completed no later than 3rd Quarter after IOC.
- Tactical Support Center/Mobile Operational Control Center: The Northrop Grumman engineer that is developing the TSC requirements stated that the existing TSC facilities need to be expanded for MMA and will definitely need a SCIF specifically for MMA.
- Fueling Facilities: NASB can store up to 2 tanks of 400,000 gallons of JP8 fuel and has three fuel trucks that can hold 10,000 gallons. The MMA holds 10,000 gallons. De-fueling is accomplished with fuel trucks and later filtered.
- Airspace: NASB has 4,000 square miles of clear airspace.
- Ordnance: The arming and de-arming pad ('red pad") can easily manage MMA on the current configuration. The survey team asked the PWO staff to study and offer proposals for expansion of the 'red pad' to accommodate more than one MMA at a time.
- Administrative space: Hangar 6 has sufficient space to accommodate the contractor.

Action Items:

- **AICUZ Update** – The last AICUZ study for NASB was completed in 1977. This study will need to be conducted as part of the NEPA process.
- **Noise Analysis** - This study will need to be conducted as part of the NEPA process.
- **Training Facility Requirements** – PMA 205 will review and update its facility requirements for simulators and related classroom, office space and provide to PMA 290.
- **Red pad expansion and Blast Fence**- The PWO staff took this task on and will provide alternatives.

Conclusion:

From an infrastructure perspective, Naval Air Station Brunswick is feasible as a MOB location with minimal investment required for IOC 2013.

DCN: 11596

Attachment 1
MMA Site Visit
NAS Brunswick, ME
(Survey Team members in bold)

NAME	ORGANIZATION	PHONE	E-MAIL
Winneg, Robert CAPT	NASB, C.O.		
Craigie, Kyle CDR	NASB, X.O.		
Tuemler, Dave	NAVAIR, PMA 290	301-757-2871	Dave.tuemler@navy.mil
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Molnar, CDR	NASB, PWO	207-921-2661	Mike.molnar@navy.mil
Brubaker, Tom	NASB, DPWO	207-921-2281	Thomas.brubaker@navy.mil
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Hillman, Tim	Boeing	425-965-7453	timothy.Hillman@boeing.com
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Wolfe, Larry	NAVAIR (PMA 205)	301-757-2132	Lawrence.wolfe@navy.mil
Monfort, Jim	NAVAIR (PMA 205)	301-757-8160	James.monfort@navy.mil
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Joy, Lisa	NASB Environmental (Air)	207-921-1717	Lisa.joy@navy.mil
Fulton, Steve LT	NASB Air Ops	207-921-2256/7	Steven.l.fulton@navy.mil
Hamre, Darren CDR	NASB Air Ops Officer	207-921-2256/7	Darren.hamre@navy.mil
Dorcus, Fred	NASB Supply	207-921-2675	Fred.dorcus@navy.mil

DCN: 11596

Attachment 2
Site Visit Agenda

Day One

- In Brief to Installation Commanding Officer

Tours of following:

- Hangars - All
    - Office Spaces
    - MX Spaces
    - Storage spaces
    - Package Handling Storage &Transportation
    - Inside
    - Outside
    - Fire Protection
    - Power Supply
    - Grounding
    - ALSS – aircraft life support systems (PR)
    - Ramp and Parking Spaces
    - Wash Rack
    - Rinse Rack
    - Hot Pads – location; restrictions; "red road"
- Review Findings with Team

Day Two

Tours of following:

- Tactical Support Center: Quick Tour –All; Detailed Tour – Jim and Bill
- Training Facilities – Jim and Bill
    - Deep Dive
- AIMD – All
    - De-Icing
    - Support Equipment shops and Storage
    - Wheels, Tires, Brakes
    - Rinse Rack
- Base Supply
    - Fueling
    - Battery locker
    - Fuel Storage
    - PHS&T
    - HAZMAT
    - Sonobuoy storage
    - O2/N2 recharge
- Review Findings with Team

Day Three

Interviews with following staff:

- Environmental – AICUZ; noise; natural resources
- Environmental Compliance – air; water; HAZMAT, disposal restrictions
- Airfield

  - Crash Recovery
  - Noise Abatement
  - AICUZ map
  - Engine run-up area restrictions
- Supply
- Review Findings with Team
- Prepare Out brief

Day Four

- Out brief to Installation Commanding Officer

DCN: 11596

Attachment 3
DRAFT
MMA Facility Requirements

Facility	Requirement	Action Required
Hangar	Test & evaluate 3 aircraft	Use Hangar 6
Blast Fence	TBD	TBD
Arming/De-arming Pad	Expand for 2 MMA	TBD
Administrative	2,700 sf	Use Hangar 6 space
Warehouse area (CLS)	4,000 sf	Segregate 4,000 in B-294 for contractor
Maintenance (CLS)	2,000 sf	Use Hangar 6 space
SE Maintenance/Storage (CLS)	3,600 sf	Use existing facilities
PR Equip. Maintenance/Storage (CLS)	1,000 sf	Use existing facilities
Training Facilities	19,496 sf ?	MILCON
Tactical Support Center	??? SF SCIF	TBD
Hazardous Materials (CLS)	Storage lockers	Use existing facilities
Ordnance	N/A	Use existing facilities
MMA Crew Space (210 pn)	??? sf	Hangar 6 Ready Room
Facility Planning Estimate (Prelim)	32,796 SF	

This Table gives a conceptual breakdown of the types and sizes of functions required to support a MMA Main Operating Base. As noted some requirements are yet to be developed.

Blast Fence: NASB PW staff will provide a scope requirement.
Arming/De-Arming Pad: NASB PW staff will provide a proposal.
Instrumentation lab and Data Processing lab space requirements will be provided by Boeing.
Training Facility space requirements will be reviewed and revised if necessary by PMA 205.
Tactical Support Center space requirements will be provided by Northrop Grumman.
Ordnance storage requirements are assumed to be same as P-3 requirements, but will verify.
MMA Crew Space estimated based on crew size of 7 per aircraft x 30 aircraft. This needs verification.

NAVAL AIR STATION (NAS) BRUNSWICK MAINE
MMA SITE EVALUATION REPORT
(PRELIMINARY)

1. INTRODUCTION

1.1 Purpose

The purpose of this Site Evaluation Report (SER) is to identify the support requirements for the Multi-mission Maritime Aircraft (MMA) during introduction at Naval Air Station (NAS) Brunswick, Maine. The data provided is intended as guidance in developing a Site Plan and supporting DD Form 1391s for NAS Brunswick.

1.2 Scope

The Preliminary SER delineates the support requirements for both operational and training facilities as established during the acquisition process and is supported by the P-3 Weapon System Planning Document (WSPD) and the OPNAV (N78) U.S. Navy Aircraft Inventory Budget Exhibit. The Preliminary SER is provided as a guide to be used in conjunction with the Boeing Facilities Requirements Document (FRD – Attachment A) in development of the proposed Site Plan.

Once the Preliminary SER has been reviewed and NAS Brunswick personnel have developed a proposed Site Plan, the SER will be updated and used in facilities planning. Also the SER will be staffed at the appropriate levels to ensure concurrence by N78. The MMA Program Office will assist NAS Brunswick in the development and tracking of the appropriate documentation to ensure a successful introduction of MMA.

1.3 Assumptions

The following assumptions were identified and used during the MMA Systems Development and Demonstration (SDD) contract and subsequent aircraft deployment.

a. Initial MMA skills training for Fleet personnel will be provided at the Fleet Replacement Squadron (FRS) Training Center at NAS Jacksonville.

b. Initial Operational Capability (IOC) will be evaluated using a Fleet squadron at NAS Jacksonville. The IOC squadron is defined as the first squadron fully manned, trained, and ready to deploy.

c. Follow-on operational training will be established at each Main Operating Base (MOB) for the Fleet MMA squadrons, and NAS Jacksonville will be the first MOB.

d. There will be a seven to eight-year overlap of MMA and P-3 training and support requirements at NAS Jacksonville.

e. A Performance Based Logistics contract will be used to provide full Contractor Logistic Support (CLS) for aircraft maintenance, Support Equipment (SE) management and repair, and Supply Chain Management (SCM).

f. The Navy will be required to provide the necessary facilities, infrastructure, and furnishings to support training, maintenance, SE, and SCM concepts established for MMA.

1.4 Milestones

The following list identifies milestones associated with the aircraft/personnel arrival dates, facilities requirements, and actions needed to support MMA transition.

a. Development of the NAS Brunswick Site Plan based on MMA requirements.

b. Development of documentation (DD Form 1391s, etc.) to support funding of the required new construction and modifications to support the Site Plan. The documentation to support the initial requirements should be started in Fiscal Year (FY) 20XX.

c. Operational follow-on training facilities, infrastructure, and furnishings will be required in FYXX to facilitate equipment installation and testing in order to support the first class in FYXX. (See Attachment A for details)

Note

The full compliment of trainers and approximately 9 support personnel are scheduled to be in place at NAS Brunswick by FYXX (See Table 2-1, Training CMS personnel).

d. Hangar spaces, ramp areas, and maintenance spaces will be required to provide adequate weather protection for aircraft and maintenance personnel in order to support the first squadron of six aircraft with support personnel arriving in FYXX. Transition of the second and subsequent squadrons will be dependent on the production and delivery schedule of the aircraft.

Note

The full compliment of XX aircraft and approximately 124 support personnel are scheduled to be in place at NAS Brunswick by FYXX (See Table 1-1, Projected Aircraft and Personnel Schedule).

1.5 Proposed Site Plan

1.5.1 To Be Determined

Note:

Figures 1-1, 1-2, and 1-3 reflect NAS Brunswick as it is. These figures will be updated to reflect changes contained in the proposed Site Plan and DD Form 1391s upon approval.

Table 1-1

Projected Aircraft and Support Personnel by Year

Fiscal Year	**FYXX**
Number of Aircraft	**12**
Billet Title	
Site Manager	1
Admin Assist	1
Stores Mgr	1
Storekeeper LD	3
Storekeeper A	4
Storekeeper B	4
Receiving QA	2
Logs/Records	2
Safety/HAZMAT	2
Tool Control	3
SE Manager	2
SE Admin	2
SE Technician LD	2
SE Technician A	4
SE Technician B	4
Instructor (Training/Records)	2
Maintenance Manager	1
Maintenance Planning	4
Admin Assist	1
Field Service Rep	3
Shift Supervisors	3
A/C Technician LD	3
A/C Technician A	18
A/C Technician B	20
AvEquip Technician	12
Line Division	8
Supervisor (Det)	2
Maintenance Control (Det)	2
A/C Technician A (Det)	7
A/C Technician B (Det)	7
Admin (Det)	2
Line Division (Det)	4

Total	**136**

2. TRAINING FACILITIES

Table 2-1

Training CMS

Training Facilities at NAS Brunswick	
	Operational
Training Program Management	
Librarian	
Maint/Doc - HAZ MAT	
PTS Device Tech	2.0
MTS Device Tech	0.0
Computer Tech	0.5
Network Tech	0.5
Supply Support	
Configuration Management	
CLS Maintenance Instructors	0.0
OFT/TOFT Operators	4.0
Courseware Support	0.0
Security	2.0
Total	**9**

2.1 171 35 Operational Trainer Facilities

Functional Requirements: The Operational Trainer Facility will accommodate one OFT, one TOFT, and two WTTs.

Training facilities will also include space for classrooms, training devices, support equipment, tools, supplies, CBT stations, internal and external network intercommunication equipment,

training media storage, CMS offices, student study rooms, instructor offices, management and briefing areas, and communication closets. The Operational Training Facility must be constructed to the Secret level with a SCIF included within the building.

Evaluation: The reduction of on-aircraft training in the MMA increases the need for a separate operational trainer facility At NAS Brunswick.

The facilities, infrastructure, and furnishings to accommodate the training requirements of the MOB training system installation will be required in FYXX to support the first squadron Training and Readiness requirements in FYXX. The MOB operational training facility is expected to be approximately 19,147 square feet

Recommended Corrective Action: The operational squadrons require a separate training system at NAS Brunswick. (Table 2-1 provides the projected personnel required to support the Operational Training Facility)

3. OPERATIONAL FACILITIES

3.1 Operational Facilities Composition

This section addresses the functional requirements, evaluations, and recommended actions for the operational facilities required to support the MMA.

3.2 Airfield Pavement Criteria

The strength of pavements required at an airfield is determined by the maximum gross weight of the aircraft it must support. Data for airfield pavement design criteria peculiar to the MMA includes aircraft gear configuration, number of wheels, wheel spacing, tire size, and inflation pressures (See Figure 3-1). The airfield pavement criteria for the MMA landing on rigid and flexible pavement (specifically, the Aircraft Classification Numbers (ACNs)) are illustrated in Figures 3-2 and 3-3. The Pavement Classification and Pavement Index Numbers (PCNs/PCIs) are contained in Table 3-1 and Figure 3-4.

Table 3-1

Runway PCN Values

STATION	EFD	RUNWAY	RUNWAY PCN	LENGTH (ft)	WIDTH (ft)
Brunswick					
Brunswick					

Design	SDD Proposal	Proposed New
Max Taxi	184,700	188,200
Max Take Off	184,200	187,700
Max Design Landing	146,300	149,800
Max Zero Fuel	138,300	141,800

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MAXIMUM DESIGN TAXI WEIGHT	LB	184,700
MAXIMUM DESIGN TAKE OFF	LB	184,200
MAXIMUM DESIGN LANDING WEIGHT	LB	154,600
NOSE GEAR TIRE SIZE	IN.	27X7.7-15 12 PR
NOSE GEAR TIRE PRESSURE	PSI	185
MAIN GEAR TIRE SIZE	IN	H44.5 X16.5 – 21 28 PR
MAIN GEAR TIRE PRESSURE	PSI	204

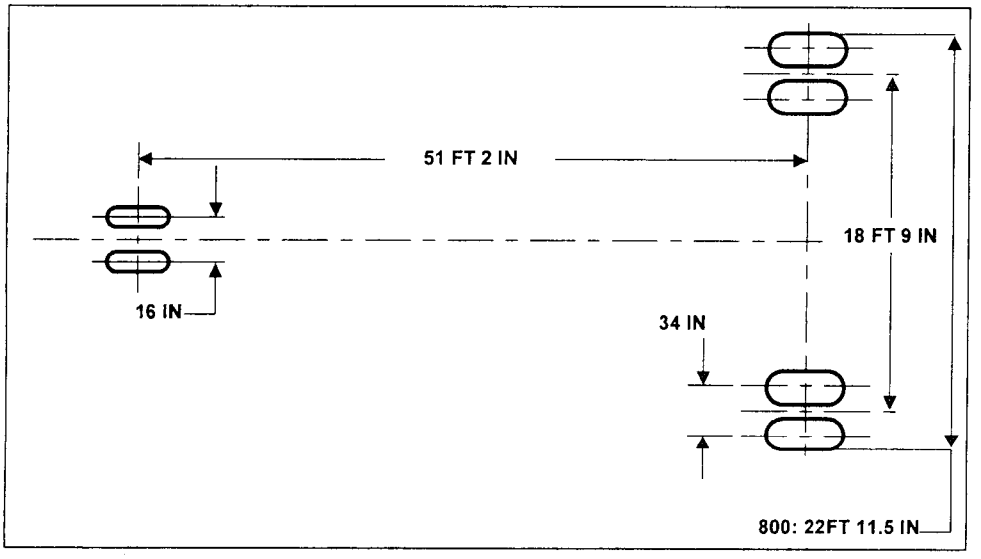

Figure 3-1 Maximum Weights*, Tire Size, and Landing Gear Footprint

*Please Note: New maximum weights have been proposed. (See Table 3-X

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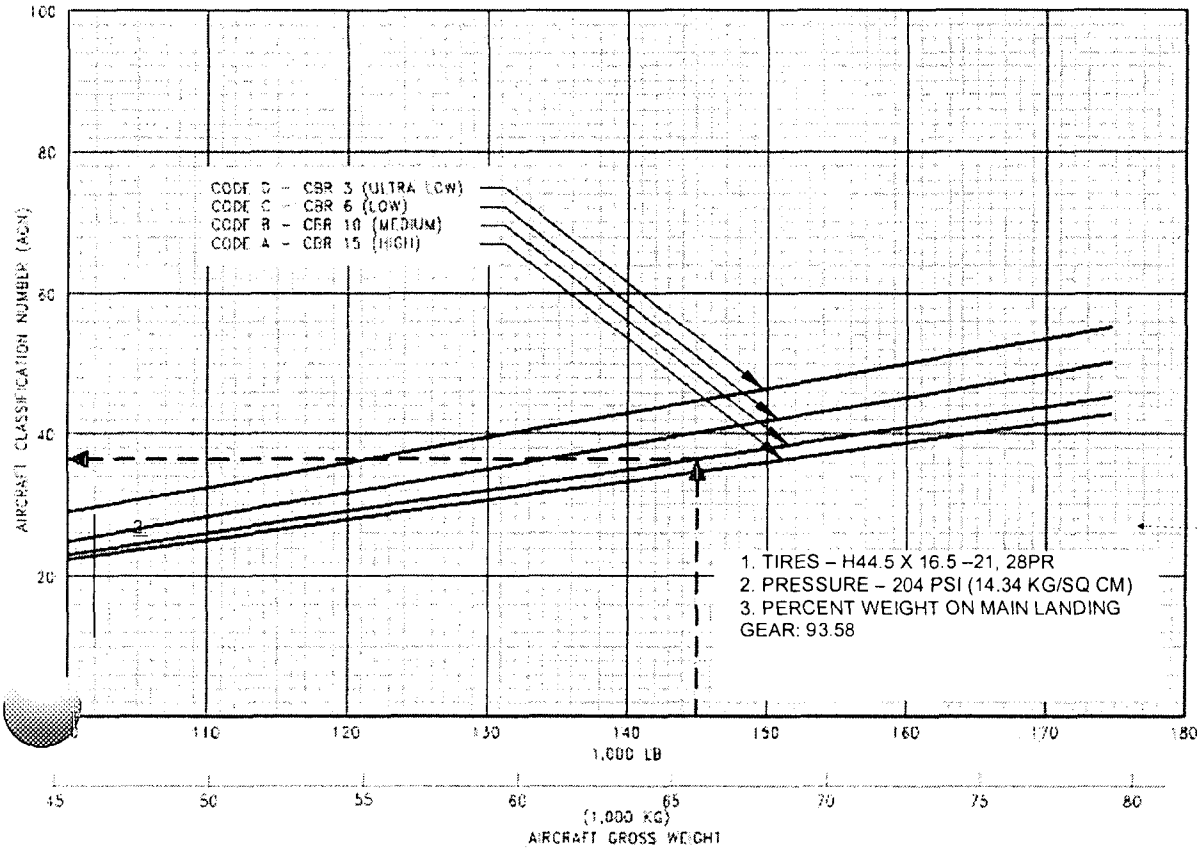

Figure 3-2 ACNs for Flexible Pavement

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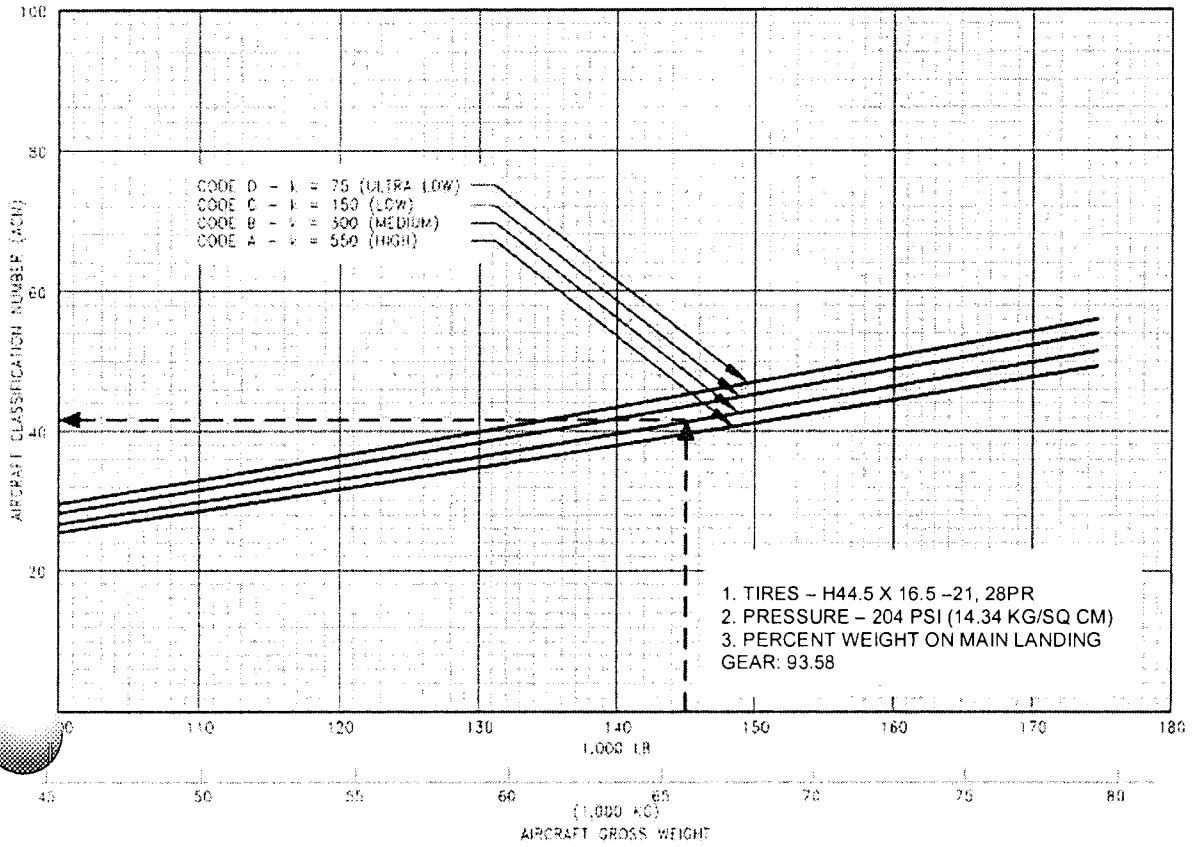

Figure 3-3 ACNs for Rigid Pavement

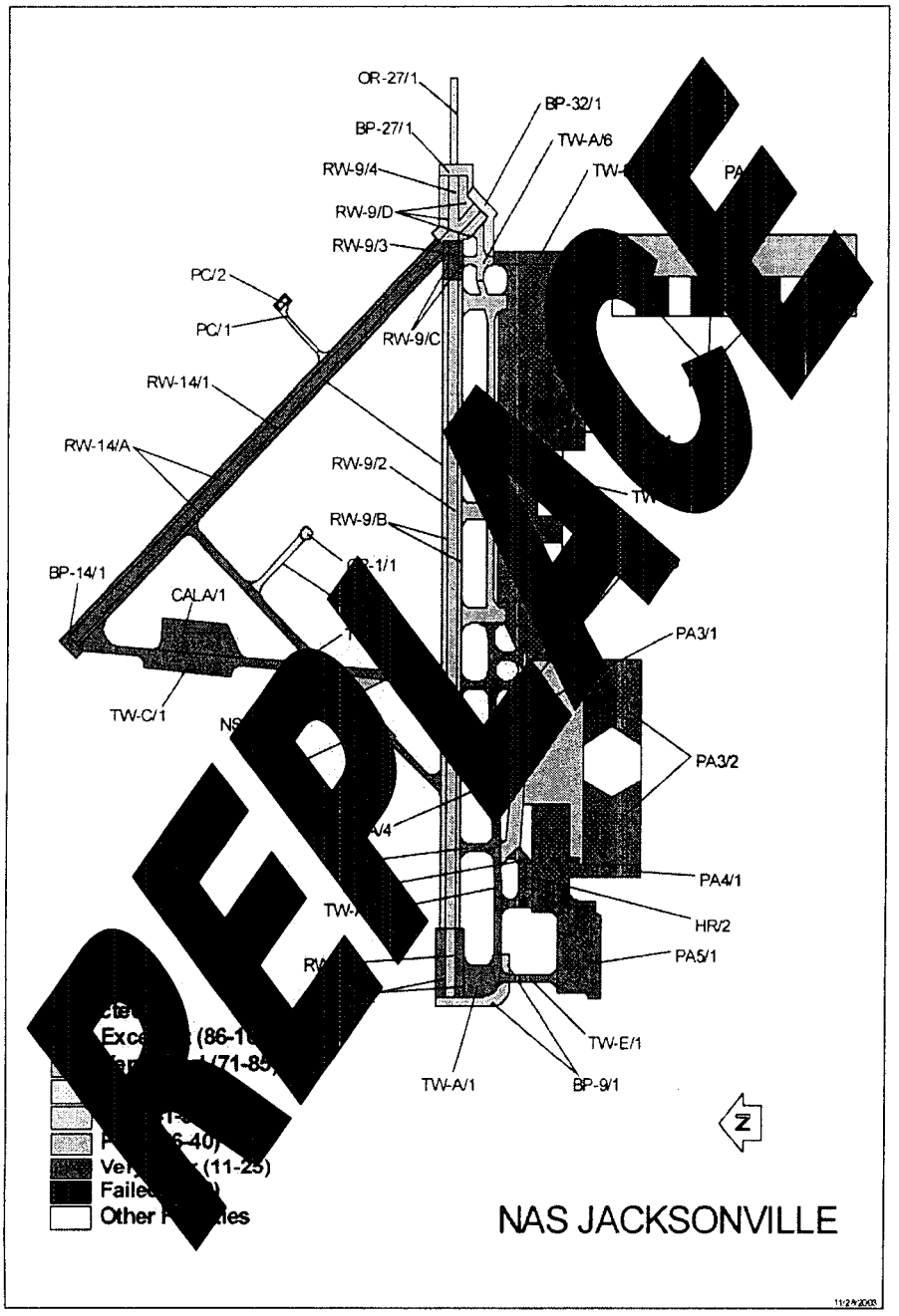

Figure 3-4 PCI Values (Dec 2004)

3.3 111 10 Runway/Fixed Wing

Functional Requirements: Runways are paved surfaces for aircraft takeoff and landing. Traffic density, airfield mission, operational procedures, and local environmental factors determine an airfield's required number of runways. Runway orientation is determined by analyzing wind data, terrain, generated noise levels, and local development planning. See Naval Facilities Engineering Command (NAVFAC) DM-21.1 for wind rose analysis and design criteria.

Evaluation: **NEED NEW DATA FOR Brunswick** General airfield information is shown in Figures 1-1 and 1-2. The ACNs for the MMA takeoff and landing on flexible and rigid pavement are shown in Figures 3-2 and 3-3. The PCNs and PCIs are contained in Table 3-1 and Figure 3-4.

Recommended Corrective Action: **NEED NEW DATA FOR Brunswick** should continue with a suitable maintenance and repair program to maintain appropriate PCN and PCI ratings for runways.

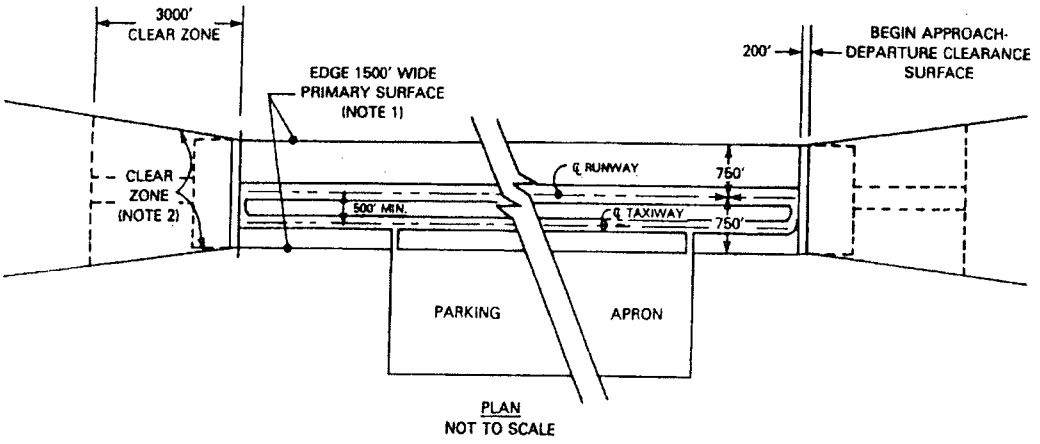

Figure 3-5 Class B Runway – Typical Layout

3.4 112 10 Taxiway

Functional Requirements: Taxiways should be located to provide a smooth flow of aircraft traffic

to and from runways and service and parking areas. Criteria specified in NAVFAC P-80 are sufficient to meet the requirements of the aircraft.

Evaluation: **NEED NEW DATA FOR Brunswick** The ACNs for the MMA on flexible and rigid pavement are shown in Figures X-X and X-X. The PCNs and PCIs are contained in Figure X-X.

Recommended Corrective Action: Continue with a suitable maintenance and repair program to maintain appropriate PCN and PCI ratings for taxiways.

3.5 113 20 Aircraft Parking Apron

Functional Requirements: Aircraft parking aprons consist of paved areas in close proximity to maintenance hangars to provide spaces, tie down points, line maintenance, loading, unloading, and servicing of aircraft in addition to providing parking space. There is no standard size or apron configuration. The size is based on the type and number of aircraft to be parked, the requirement for squadron integrity, and 45 versus 90 degree parking. The area required includes parking space, wing-tip separation between aircraft, and interior/peripheral taxi lanes. Aprons used for ordnance handling require special siting considerations. (See category code 116 56)

Evaluation: Figures 3-6a and 3-6b illustrate possible apron parking solutions and the required dimensions.

Recommended Corrective Action: Utilizing the projected aircraft arrival information provided in Table 1-1, the SER, and existing MILCON projects, a comprehensive aircraft parking layout should be developed based upon apron requirements for existing and projected aircraft. Landing gear layout, tire pressures, and size data is provided in Figure 3-1. The Site Plan should allow for tie downs in areas that are not peripheral taxi lanes to maximize apron flexibility. Consideration should also be given to adding tie down anchors to the apron in front of Building 30.

Note

The aircraft wing is being redesigned to remove the winglets. This redesign will

result in the wingspan of the aircraft being increased; the exact dimensions are unknown at this time.

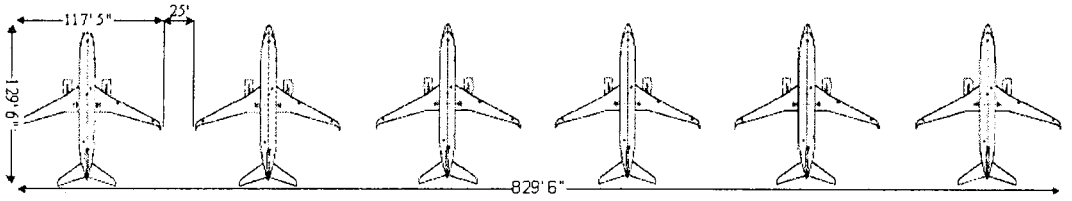

Figure 3-6a Requirement in feet for 6 parked MMA

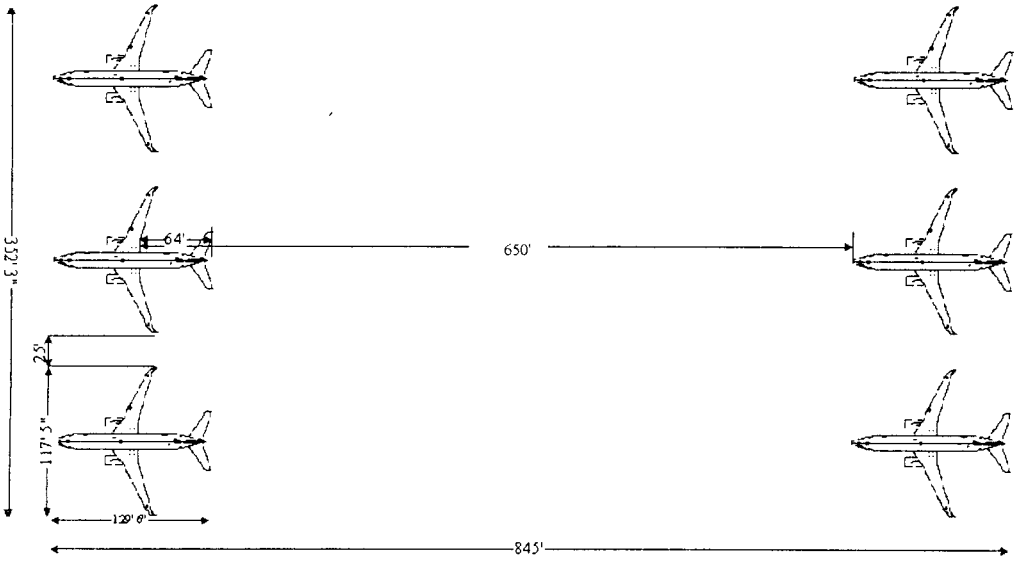

Figure 3-6b Estimated separation to keep aircraft outside the 35 MPH exhaust velocity contour at breakaway power

Figure 3-6 Notional Parking Arrangements

3.6 116 10 Aircraft Washrack Pavement

Functional Requirements: Aircraft washracks are provided at all air installations for cleaning of aircraft in conjunction with periodic maintenance. A minimum of one washrack is required at each NAS, Naval Air Facility, and equivalent Marine Corps facilities. The total number of washracks required at an installation depends on numbers and types of on-board aircraft.

Evaluation Recommended Corrective Action: Evaluate the existing washrack and overhead structure dimensions to ensure compatibility with the aircraft.

Note

The aircraft wing is being redesigned to remove the winglets. This redesign will result in the wingspan of the aircraft being increased; the exact dimensions are unknown at this time.

3.7 116 20 Aircraft Compass Calibration Pad

Functional Requirements: An aircraft compass calibration pad is a paved area in a magnetically quiet zone where the compass in the aircraft is calibrated. There are two types of calibration pads.

- Type I is used with the magnetic compass calibration set
- Type II includes a compass rose and turntable and may be used with or without the compass calibration set

Either pad type will only handle one aircraft at a time. A minimum of one pad is provided at each station. Access to the calibration pad is oriented to facilitate aircraft entering the pad facing magnetic north. Each pad also requires a target placed at a known but arbitrary bearing at a distance of approximately one-half mile from the pad and visible from both the aircraft and the compass calibration set.

Evaluation: (See Figure 3-7)

Recommended Corrective Action: The size of the compass calibration pad must be reviewed to ascertain what required actions are necessary to accommodate MMA.

3.8 116 35 Arming and De-arming Pad

Functional Requirements: This arming and de-arming pad provides a paved area for activating or deactivating weapons systems on-board aircraft. It is utilized at all Navy and Marine Corps air installations where gunnery, rocketry, and/or missile firing are conducted. The number of pads at an installation depends upon the demand at that installation. The pads are sited at either end of the primary runway and, if additional pads are required, at either end of the crosswind runways. Aircraft utilizing the pad normally park parallel to the runway headed in the direction providing the maximum length of undeveloped space along the extended longitudinal centerline of the aircraft. In no case is arming or de-arming of propelled ordnance allowed when the aircraft is facing inhabited areas on or near the air installation. For design criteria, see NAVFAC DM-21. A waiver to airspace clearance criteria is not required when the arming and de-arming pad is sited as shown in DM-21.

Evaluation:

Recommended Corrective Action: An aircraft-parking layout is required in order to determine the suitability of the existing arming and de-arming pad. The pad is serving a variety of carrier-based and patrol type aircraft. Consideration should be given to adding additional tie down anchors to the apron should the parking plan warrant. (See Figure 3-7)

3.9 116 42 Blast Protective Pavement

Functional Requirements: Blast protective pavement provides blast erosion protection for the areas adjacent to the ends of the runways, arming and de-arming pads, and aircraft engine power check pads. These areas are subject to the repetitive high velocity and temperature erosion effects of jet engine exhaust wakes.

Evaluation: The MMA has a relatively low temperature exhaust. However, the velocity wake is very large.

Recommended Correction: Testing during the SDD phase should verify the blast wake, and the

impact on pavements should be determined at Patuxent River NAS.

3.10 116 45 Line Vehicle Parking

Functional Requirements: Line vehicle parking spaces contiguous to taxiway and parking aprons are allocated to mobile equipment assigned for flight line use. Parking areas shall be selected to permit optimum efficiency in the use of equipment (for example, squadron vehicles will normally be assigned space close to the squadron maintenance hangar) and to conform to lateral safety clearances for existing and projected airfield pavements. Where weather requires and the clearances permit, shelter for line vehicles may be provided.

Evaluation: Specific types and numbers of line vehicles required by the CLS contractor are currently unknown. Because of the non-traditional maintenance concept for this aircraft, the vehicles requiring this parking will be controlled and maintained by the CLS contractor. This requires a dedicated space as close as possible to the aircraft line and CLS contractor maintenance personnel.

Recommended Corrective Actions: Type and quantity of aircraft line vehicles should be determined during SDD. Line vehicle parking should be identified in the Site Plan.

3.11 116 56 Combat Aircraft Ordnance Loading Area

Functional Requirements: The combat aircraft ordnance loading area is primarily an apron where explosives are loaded/off-loaded from combat aircraft departing and/or returning from weapons training flights. This area is required when space is not available on the parking apron for loading mass detonating ordnance that meet the explosive quantity-distance requirements specified in Naval Sea Systems Command (NAVSEA) OP-5, Volume I (Ammunition and Explosives Ashore-Safety Regulations for Handling, Storing, Production, Renovation, and Shipping). The weapons are not armed on this apron; see Category Code 115 35, Arming and De-arming Pad Policy. Due to ordnance handling taking place on this apron, its location with respect to other facilities shall be determined using the quantity-distance requirements and explosive prohibited areas specified in NAVSEA OP-5, Volume I. The apron shall be separated from any inhabited building by the inhabited building distance based on the total quantity of

explosives (Net Explosive Weight) to be handled on the apron at one time. In addition, the airfield safety clearances specified in NAVFAC P-80.3, Airfield Safety Clearances apply and:

- The apron must be outside the runway primary surface
- Parked aircraft shall not penetrate any transitional surface
- No objects shall be sited within 100 feet of the edge of this apron

Evaluation: The combat aircraft ordnance loading area has taxi lines and tie down points to accommodate five P-3 Aircraft. The present configuration will require a review to ascertain the required actions for support of the MMA. (See Figure 3-7)

Recommended Corrective Action: Any modification necessary to support ordnance loading should be identified in the Site Plan.

3.12 116 60 Fire and Rescue Vehicle Alert Pad

Functional Requirements: This facility provides a parking area for an Immediate Response Alert Vehicle. The purpose of the Immediate Response Alert is to:

- Observe all landings and take-offs
- Respond immediately to any aircraft accident
- Provide timely rescue of personnel involved in emergencies

The pad should be large enough to park one appropriately sized fire truck and should be located no closer than 150 feet from the runway edge. The pad should not include a protective shelter or any other structure, which would violate airfield safety clearance criteria, for guidance see NAVFAC P-80.3, Airfield Safety Clearances. The pad should be connected to the runway by a 16-foot-wide access roadway. If there is no access to the alert pad other than from the runway, the parking space should be widened as required to allow the truck sufficient space to turn around.

Evaluation:

Recommended Corrective Action:

3.13 121 20 Aircraft Truck Fueling Facility

Functional Requirements: An aircraft truck fueling facility is used to transfer fuel to refuel trucks for subsequent fueling of the aircraft. The fueling equipment is located on concrete islands that are designed to provide fuel from one side only. Where more than one island (one fueling outlet per island) is required, they shall be arranged parallel to each other with 15 feet between adjacent sides. The pavement between islands is sloped to a drain or catch basin, which is connected to a containment area in case of a fuel spill. See NAVFAC P-272, Drawing 14039987 for a sketch of a typical refuel fill stand and NAVFAC DM-22 for design criteria.

Evaluation:

Recommended Corrective Action: NAS Brunswick evaluate the capacity of their refueling stand to support the additional volume required by MMA and propose any necessary modifications to the Site Plan.

3.14 121 30 Aircraft Defueling Facility

Functional Requirements: The Aircraft Defueling Facility is used to facilitate aircraft maintenance and defuel aircraft of contaminated fuel. Normally, a designated defuel truck is used to provide defueling services.

Evaluation:

Recommended Corrective Action: NAS Brunswick will evaluate the capacity of their defueling stand to support the additional volume required by MMA and propose any necessary modification in the Site Plan.

3.15 123 10 Filling Station

Functional Requirements: The Filling Station is required to fuel equipment and support vehicles. The Filling Station includes fuel dispensing pumps, access roads, area lighting, shelter, and fire protection. The facility should be located in the vicinity of the aircraft Ground Support

Equipment (GSE) shop.

Evaluation:

Recommended Corrective Action: The contractor will require station accounts to purchase fuel for contractor owned vehicles (e.g., trucks, vans, lift trucks, etc.), and miscellaneous station services.

3.16 124 30 Aircraft Ready Fuel Storage

Functional Requirements: Aircraft ready fuel storage tanks are required to provide an operating and reserve supply of jet fuel. At air stations, all aviation fuel storage is considered to be aircraft ready fuel. A ten-day supply is required to be stored at air stations within the continental U.S.

Evaluation:

Recommended Corrective Action: NAS Brunswick evaluate the capacity of their fuel storage in order to support the additional volume required by MMA and identify any modifications to the Site Plan.

3.17 149 50 Blast Deflector Fence

Functional Requirements: Blast deflector fences are structures that direct the exhaust from jet engines upward. They are used in congested, parking, and maintenance areas (aircraft power check pad) to protect personnel, equipment, and structures from the blast effect of jet engine exhaust.

Evaluation:

Recommended Corrective Action:

4. ORGANIZATIONAL MAINTENANCE FACILITIES

4.1 Organizational Maintenance Facilities Composition

This section covers functional requirements, evaluations, and recommended actions for the facilities to support organizational maintenance. Category codes and nomenclatures covered in this section are listed below.

211 05 Maintenance Hangar – 0H Space

211 06 Maintenance Hangar – 01 Space

211 07 Maintenance Hangar – 02 Space

Maintenance Hangars are required to provide weather-protected shelter for the servicing and repair of Navy aircraft at the organizational level and emergency shelter for operable aircraft. These hangars are to contain a hangar space (OH), crew and equipment space (01), and administrative space (02). Each of these spaces is assigned a separate category code.

4.2 211 05 Maintenance Hangar – OH Space

Functional Requirements: This space is high bay and is used for organizational maintenance of the aircraft in a controlled environment.

The present plan is to stand down a P-3 squadron in FYXX for transition to MMA squadrons.

Evaluation: MMA are larger than the P-3 aircraft (Figures 4-1 and 4-2 provide specific measurements

Note

The aircraft wing is being redesigned to remove the winglets. This redesign will result in the wingspan of the aircraft being increased; the exact dimensions are unknown at this time.

Recommended Corrective Action: Evaluate the hangar requirements and propose modifications and/or new construction necessary to support MMA in the Site Plan.

4.3 211 06 Maintenance Hangar – O1 Space

Functional Requirements: This space is generally behind the OH space and is at ground level. The organizational maintenance shops and production control are typically in these spaces.

The present concept has the CLS maintenance team resident at the Air Station and not the squadron. The CLS maintenance team will support all squadron aircraft and could be accomplished from a centrally located facility. The present plan for the CLS team for FYXX (See Table 1-1)

Evaluation:

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, pages C-7 and C-8) to determine maintenance team facilities requirements. NAS Brunswick determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

4.4 211 07 Maintenance Hangar – O2 Space

Functional Requirements: This space provides administrative offices for the squadron.

Evaluation:

Recommended Corrective Action: Any modification to existing spaces and/or new construction necessary to support these requirements should be provided in the Site Plan.

4.5 CLS Administration

Functional Requirements: This space would provide for overall CLS Site Management. It would provide space for Site Managers, Spares Managers, overall data storage, and general administration services.

Evaluation: This is a new requirement derived from the CLS support concept.

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, page C-7) to determine administration facilities requirements. NAS Brunswick determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

5. INTERMEDIATE MAINTENANCE FACILITIES

5.1 Intermediate Maintenance Facilities Composition

This section addresses the functional requirements, evaluations, and recommended actions for intermediate maintenance facilities at NAS Brunswick. It is anticipated that minimal intermediate maintenance facilities support will be required. The overall support concept will be evaluated during SDD.

It was determined that the following categories' impact will be minimal by the introduction of MMA at NAS Brunswick.

211 01 Aircraft Acoustical Enclosure
211 08 Airframe Shop
Hydraulics/Pneumatics Shop
Welding Shop
Structures Shop
Fiberglass/Plastics/Composites Shop
Machine Shop
Cleaning Shop
Nondestructive Inspection (NDI) Shop
Paint Shop
Tire and Wheel Shop
211 21 Engine Maintenance Shop
Compressor Power Unit Test Stand
211 45 Avionics Shop
116 65 Tactical Support Van Pad
211 55 Aviation Armament Support Equipment Holding Shed

211 81 Engine Test Cell

211 89 Power Check Pad without Sound Suppression

218 50 Battery Shop

5.2 211 54 Aviation Armament Shop

Functional Requirements: An aviation armament shop requires space and utilities to support intermediate maintenance of guided missile launchers, bomb racks, and pylons. A storage area and Armament Weapons SE work center also requires space in this shop. MMA will use the same weapons as P-3 aircraft.

Evaluation:

Recommended Corrective Action:

5.3 211 75 Parachute Survival Equipment Shop

Functional Requirements: A parachute and survival equipment shop provides space and utilities required to support inspection, repair, modification, and repacking of parachutes, rafts, and life vests during intermediate maintenance. Space is also provided for testing and repair of oxygen systems as well as aircrew personal equipment.

Evaluation:

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, page C-7) to determine Parachute Survival Equipment and storage space requirements. NAS Brunswick determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

5.4 218 60 Aircraft Ground Support Equipment Shop

Functional Requirements: Intermediate maintenance of aircraft GSE is performed in this shop. Ground support equipment, often referred to as yellow gear, includes such items as tow tractors, trucks, fork lifts, trailers, compressors, power generators, maintenance stands, jacks, and other

GSE that support aircraft operations. The GSE shop requirement is based on the average number of on-board aircraft.

Evaluation:

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, pages C-8 and C-9) to determine GSE shop requirements. NAS Brunswick determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

Note:

Although the CLS team will maintain and operate the GSE, NAS Brunswick will retain the responsibility of operator licensing In Accordance With (IAW) local regulations and policies.

5.5 218 61 Ground Support Equipment Holding Shed

Functional Requirements: The GSE Holding Shed provides a secure and sheltered storage area for GSE awaiting either repair or issue.

Evaluation:

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, page C-8) to determine GSE holding shed requirements. NAS Brunswick determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

6. SUPPLY FACILITIES

6.1 Supply Facilities Composition

This section provides the functional requirements, evaluations, and recommended actions to support SCM. The MMA program will employ a non-traditional approach to SCM where the

contractor provides for provisioning of spare parts to ensure all procured and stocked spare and repair parts are current with delivered aircraft configurations.

6.2 441 10 General Warehouse Navy

Functional Requirements: A general warehouse provides bulk and bin storage, aisles, receiving, packing, crating, and administrative space. Facilities excluded from this category are all shop stores, ready issue stores, and miscellaneous storage not physically located in a supply department.

Evaluation: Because of the non-traditional approach to SCM, general warehousing and Packaging, Handling, Storage and Transportation (PHS&T) will be controlled and maintained by the CLS team. This requires a dedicated space with controlled access.

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, page C-9) to determine warehousing and PHS&T requirements. NAS Brunswick determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

6.3 441 30 Hazardous and Flammables Storehouse

Functional Requirements: The storehouse is similar to a general warehouse in most respects except provisions are made to prevent and remove, through proper ventilation, evaporated and gaseous fumes IAW National Fire Prevention Association (NFPA) Standard No. 30. Materials normally considered for storage in this category include paints, certain package petroleum, oil, lubricants, chemicals, acids, corrosive liquids, oxidizing materials, and other similar hazardous and/or flammable materials.

Evaluation: Supply Support will require hazardous and flammables storage capability in the warehouse area. Each squadron will also require a similar capability adjacent to the hangar spaces area.

Recommended Corrective Action: NAS Brunswick determine modifications to existing spaces

and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

BOEING SITE SURVEY INPUT TO NAVAL AIR STATION (NAS) BRUNSWICK, MAINE P-8A AIRCRAFT SITE EVALUATION REPORT (PRELIMINARY)

1. INTRODUCTION

1.1 Purpose

The purpose of the Site Evaluation is to identify the support requirements for the P-8A aircraft at NAS Brunswick, Maine (NASB). The information provided is intended as guidance in development of a Preliminary Site Plan with supporting cost data for consideration at NASB as a P-8A Main Operating Base.

1.2 Assumptions

Use the following assumptions in the development of the Preliminary Site Plan:

a. The first squadron of six aircraft could be stood up as early as the third quarter of FY2012.

b. Two additional squadrons six aircraft each would follow closely as build schedule allows.

Note:

Boeing has determine that three hangar bays will be required to support 18 aircraft under the proposed CLS Support Concept.

c. Operational Training Facility has to be ready for students by the third quarter of FY2013.

d. There will be one centralized aircraft maintenance department for all squadrons with line (organizational) maintenance being preformed by Contractor Logistics Services (CLS) personnel.

e. Supply Chain Management (SCM) operations will be accomplished by CLS personnel utilizing a closed loop process.

f. Support Equipment (SE) support will be the responsibility of the CLS personnel except for licensening, which will remain as at NASB responsibility.

g. The Navy will be required to provide the necessary facilities, infrastructure, and furnishings to support training, aircraft maintenance, SE, and SCM operations at NASB.

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(See Attachment A)

1.3 Additional Information

In addition to the NASB Preliminary Site Plan and costing data, request a rough order of magnitude (ROM) for these additional assumptions.

a. An additional 12 aircraft in the maintenance department.

Note:

Boeing has determined that five hangar bays will be required to support 30 aircraft under the proposed CLS Support Concept.

b. Operational Training Facility requirements will need to be increased to support the additional student throughput.

c. All assumptions provided in paragraph 1.2 Assumptions above also apply.

2. TRAINING AND TRAINERS

This section addresses the functional requirements, evaluation, and recommended corrections to support Operational Training.

2.1 171 35 Operational Trainer Facilities

Functional Requirement: The Operational Trainer Facility will accommodate one Operational Flight Trainer (OFT), one Tactical Operational Trainer (TOFT), and two Weapons Tactical Trainers (WTTs). (See Attachment B)

Training facilities will also include space for classrooms, training devices, support equipment, tools, supplies, computer based training stations, internal and eternal network intercommunications equipment, training media storage, Contractor Maintenance Services (CMS) offices, student study rooms, instructor offices, management and briefing areas, and communication closets. The Operational Training facility must be constructed to the Secret Level with SCIF included within the building.

Evaluation: During the site evaluation it was determined that the NASB Operational Training

Facility would not be adequate to support P-8A training requirements. During the conversations with the PW personnel it was determined that modification of existing spaces would not provide a solution.

Recommended Corrective Action: NASB has identified a possible location to construct a new Operational Training Facility. The Operational Training Facility should be identified in the NASB Site Plan. Details regarding training facility requirements are provided in Attachment B.

3. OPERATIONAL FACILITIES

3.1 Operational Facilities Composition

This section addresses the functional requirements, evaluations, and recommended actions for the operational facilities required to support the P-8A aircraft.

3.2 Airfield Pavement Criteria

The strength of pavements required at an airfield is determined by the maximum gross weight of the aircraft it must support. Data for airfield pavement design criteria peculiar to the P-8A AIRCRAFT includes aircraft gear configuration, number of wheels, wheel spacing, tire size, and inflation pressures (See Figure 3-1). The airfield pavement criteria for the P-8A landing on rigid and flexible pavement (specifically, the Aircraft Classification Numbers (ACNs)) are illustrated in Figures 3-2 and 3-3. The Pavement Classification and Pavement Index Numbers (PCNs/PCIs) are contained in Table 3-1 and Figure 3-4.

Table 3-1

Runway PCN Values

STATION	EFD	RUNWAY	RUNWAY PCN	LENGTH (ft)	WIDTH (ft)
BRUNSWICK				8,000	
BRUNSWICK				8,000	

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MAXIMUM DESIGN TAXI WEIGHT	LB	188,200
MAXIMUM DESIGN TAKE OFF	LB	187,700
MAXIMUM DESIGN LANDING WEIGHT	LB	149,800
NOSE GEAR TIRE SIZE	IN.	27X7.7-15 12 PR
NOSE GEAR TIRE PRESSURE	PSI	185
MAIN GEAR TIRE SIZE	IN	H44.5 X16.5 – 21 28 PR
MAIN GEAR TIRE PRESSURE	PSI	204 THRU 205

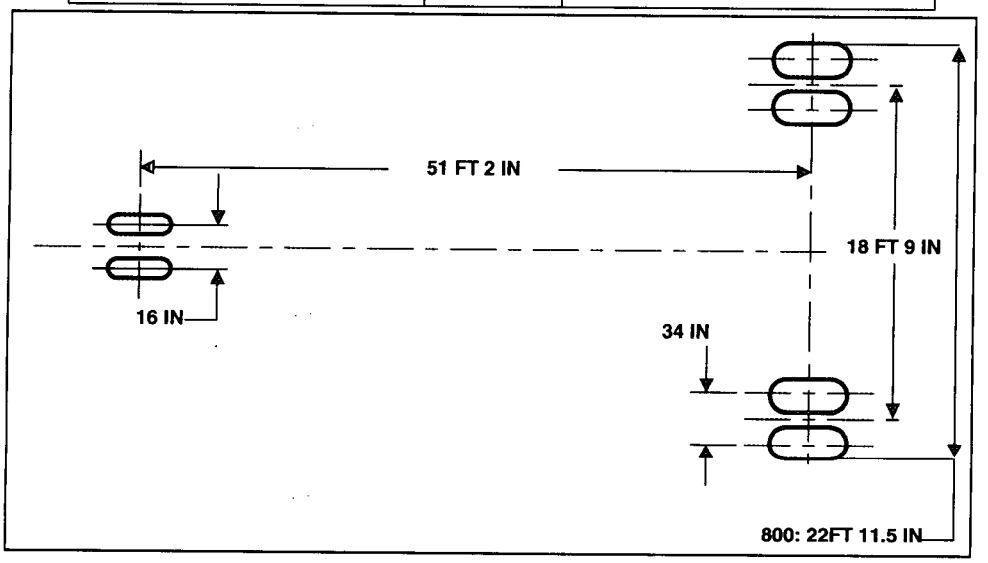

Figure 3-1 Maximum Weights, Tire Size, and Landing Gear Footprint

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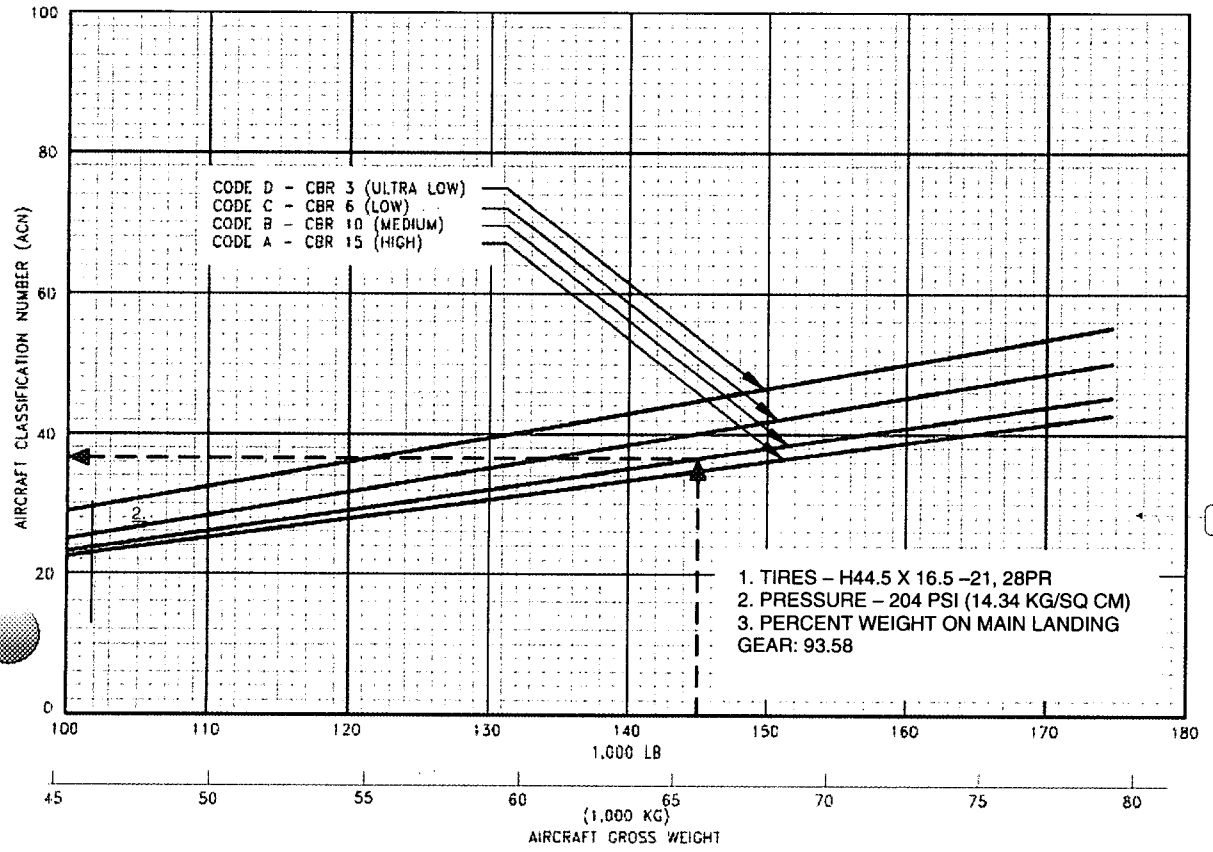

Figure 3-2 ACNs for Flexible Pavement

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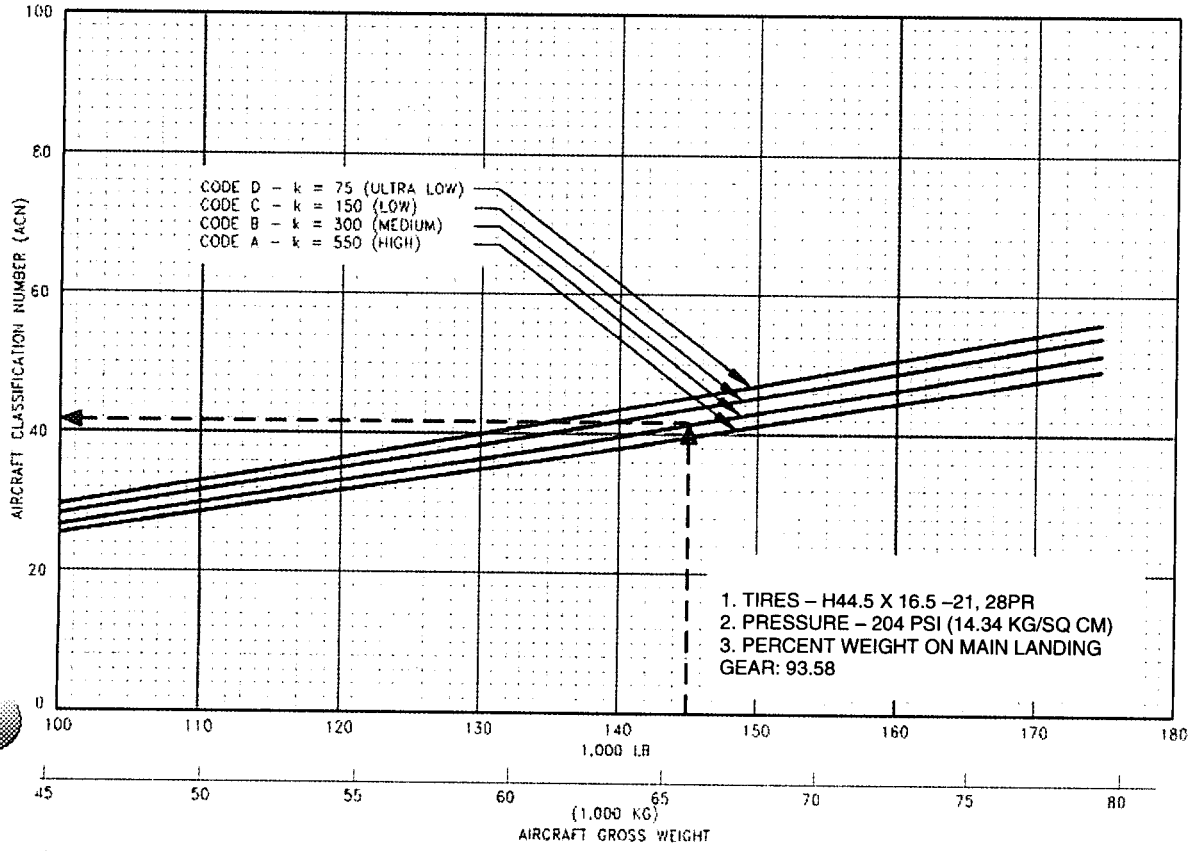

Figure 3-3 ACNs for Rigid Pavement

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Figure 3-4 PCI Values

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3.3 Runway/Fixed Wing

Functional Requirements: Runways are paved surfaces for aircraft takeoff and landing. Traffic density, airfield mission, operational procedures, and local environmental factors determine an airfield's required number of runways. Runway orientation is determined by analyzing wind data, terrain, generated noise levels, and local development planning. See Naval Facilities Engineering Command (NAVFAC) DM-21.1 for wind rose analysis and design criteria.

Evaluation: NAS Brunswick runway(s) TBD are suitable for operation of P-8A at 187,700 lbs maximum design takeoff and 154,600 lbs landing weights. The actual performance of the aircraft will be verified during TBD. General airfield information is shown in Figures 1-1 and 1-2. The ACNs for the P-8A takeoff and landing on flexible and rigid pavement are shown in Figures 3-2 and 3-3. The PCNs and PCIs are contained in Table 3-1 and Figure 3-4.

Recommended Corrective Action: Continue with a suitable maintenance and repair program to maintain appropriate PCN and PCI ratings for runways.

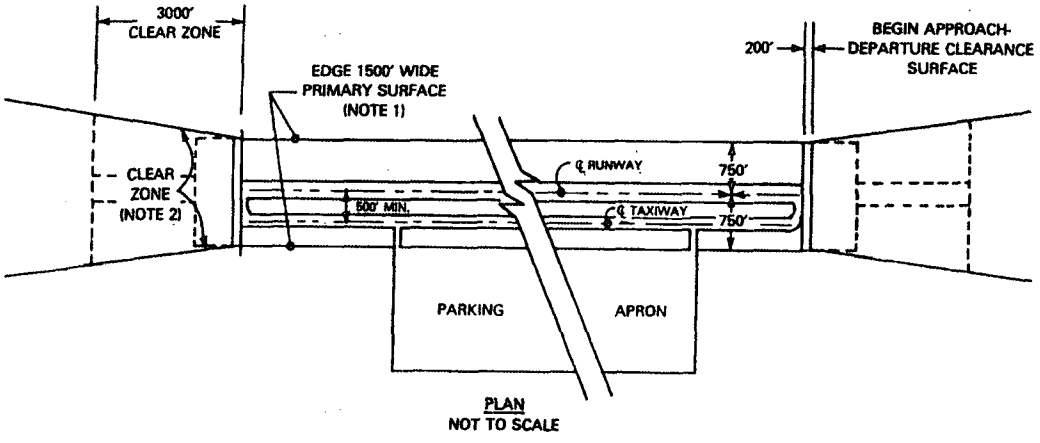

Figure 3-5 Class B Runway – Typical Layout

3.4 112 10 Taxiway

Functional Requirements: Taxiways should be located to provide a smooth flow of aircraft traffic to and from runways and service and parking areas. Criteria specified in NAVFAC P-80 are sufficient to meet the requirements of the aircraft.

Evaluation: NAS Brunswick taxiways are suitable for operation of P-8A aircraft with a maximum design taxiway weight of 188,200 pounds. The ACNs for the P-8A aircraft on flexible and rigid pavement are shown in Figures 3-2 and 3-3. The PCNs and PCIs are contained in Figure 3-4.

Recommended Corrective Action: Continue with a suitable maintenance and repair program to maintain appropriate PCN and PCI ratings for taxiways.

3.5 Hangar Five and Six Aircraft Parking Apron

Functional Requirements: Aircraft parking aprons consist of paved areas in close proximity to maintenance hangars to provide spaces, tie down points, line maintenance, loading, unloading, and servicing of aircraft in addition to providing parking space. There is no standard size or

apron configuration. The size is based on the type and number of aircraft to be parked, the requirement for squadron integrity, and 45 versus 90 degree parking. The area required includes parking space, wing-tip separation between aircraft, and interior/peripheral taxi lanes. Aprons used for ordnance handling require special siting considerations. (See category code 116 56)

Evaluation – Hangar Six: The Hangar Six parking and access apron is a concrete ramp that serves to allow for access to Hangar Six. The condition of this ramp is excellent, with no spalling or cracking evident. I was informed that some of the slabs in front of Hangar Six are scheduled for demolition and replacement. The ramp is of sufficient size to accommodate P-8A hangar movements, but will need to be re-striped to accommodate the P-8A airplane. Hangar mounted external ramp lighting is available for night operations. Airplane static grounding is presently accomplished via tiedown padeyes, although plans are underway to install static grounding ports on the ramp. The concrete ramp slab thickness is unknown, so this area should also be analyzed for load bearing capabilities.

Approximately (7) P-8A airplanes may be parked along the south portion of the ramp if a blast fence is erected.

Evaluation – Hangar Five: The Hangar Five parking and access apron is a concrete ramp that serves to allow access to Hangar Five. The Hangar Five parking and access apron of Hangar Five is adequate to accommodate P-8A hangar movements. The concrete thickness is unknown. Padeyes are used for static discharge grounding. The ramp appears to be in good condition with no obvious cracking or spalling

Recommended Corrective Action: Utilizing the information provided in the SER a comprehensive aircraft parking layout should be developed based upon apron requirements for existing and projected aircraft. Landing gear layout, tire pressures, and size data is provided in Figure 3-1. The Site Plan should allow for tie downs in areas that are not peripheral taxi lanes to maximize apron flexibility. Concrete slab thickness should be determined and analyzed for load bearing capabilities. Once load bearing capabilities are determined, a suitable maintenance and repair program to maintain appropriate PCN and PCI ratings for rampways should be

implemented.

Note

The aircraft wing is being redesigned to remove the winglets and install raked wingtips thereby increasing the wingspan to a maximum of 125'00". The exact dimensions are unknown at this time as the raked design has not been released to date.

3.6 Aircraft Washrack Pavement

Functional Requirements: Aircraft washracks are provided at all air installations for cleaning of aircraft in conjunction with periodic maintenance. A minimum of one washrack is required at each NAS, Naval Air Facility, and equivalent Marine Corps facilities. The total number of washracks required at an installation depends on numbers and types of on-board aircraft.

Evaluation: NAS Brunswick has one washrack that service existing assigned aircraft. It appears that the existing facility will be able to be utilized for the P-8A.

Recommended Corrective Action: Evaluate the existing washrack to confirm compatibility with P-8A.

3.7 Aircraft Compass Calibration Pad

Functional Requirements: An aircraft compass calibration pad is a paved area in a magnetically quiet zone where the compass in the aircraft is calibrated. There are two types of calibration pads.

- Type I is used with the magnetic compass calibration set
- Type II includes a compass rose and turntable and may be used with or without the compass calibration set

Either pad type will only handle one aircraft at a time. A minimum of one pad is provided at each station. Access to the calibration pad is oriented to facilitate aircraft entering the pad facing magnetic north. Each pad also requires a target placed at a known but arbitrary bearing at a distance of approximately one-half mile from the pad and visible from both the aircraft and the

compass calibration set.

Evaluation: The present compass calibration pad is not adequate to support the P-8A. Compass calibration will be required after the compass has been removed and replaced.

Recommended Corrective Action: The size of the compass calibration pad must be reviewed to ascertain what required actions are necessary to accommodate P-8A.

3.8 Arming and De-arming Pad

Functional Requirements: This arming and de-arming pad provides a paved area for activating or deactivating weapons systems on-board aircraft. It is utilized at all Navy and Marine Corps air installations where gunnery, rocketry, and/or missile firing are conducted. The number of pads at an installation depends upon the demand at that installation. The pads are sited at either end of the primary runway and, if additional pads are required, at either end of the crosswind runways. Aircraft utilizing the pad normally park parallel to the runway headed in the direction providing the maximum length of undeveloped space along the extended longitudinal centerline of the aircraft. In no case is arming or de-arming of propelled ordnance allowed when the aircraft is facing inhabited areas on or near the air installation. For design criteria, see NAVFAC DM-21. A waiver to airspace clearance criteria is not required when the arming and de-arming pad is sited as shown in DM-21.

Evaluation: Present dimensions of the arming and de-arming pad does not seem to be adequate to support P-8A aircraft.

Recommended Corrective Action: Verify the using the P-8A dimensions provided and make the necessary corrections as required. (See Attachment C)

3.9 116 42 Blast Protective Pavement

Functional Requirements: Blast protective pavement provides blast erosion protection for the areas adjacent to the ends of the runways, arming and de-arming pads, and aircraft engine power check pads. These areas are subject to the repetitive high velocity and temperature erosion

effects of jet engine exhaust wakes.

Evaluation: The P-8A has a relatively low temperature exhaust. However, the velocity wake is very large. It appears that the existing blast pavements will be adequate.

Recommended Correction: Testing during the SDD phase should verify the blast wake, and the impact on pavements should be determined at NAS Patuxent River.

3.10 116 45 Line Vehicle Parking

Functional Requirements: Line vehicle parking spaces contiguous to taxiway and parking aprons are allocated to mobile equipment assigned for flight line use. Parking areas shall be selected to permit optimum efficiency in the use of equipment (for example, squadron vehicles will normally be assigned space close to the squadron maintenance hangar) and to conform to lateral safety clearances for existing and projected airfield pavements. Where weather requires and the clearances permit, shelter for line vehicles may be provided.

Evaluation: Specific types and numbers of line vehicles required by the CLS contractor are currently unknown. Because of the non-traditional maintenance concept for this aircraft, the vehicles requiring this parking will be controlled and maintained by the CLS contractor. This requires a dedicated space as close as possible to the aircraft line and CLS contractor maintenance personnel.

Recommended Corrective Actions: Type and quantity of aircraft line vehicles should be determined during SDD. Line vehicle parking should be identified in the Site Plan.

3.11 116 56 Combat Aircraft Ordnance Loading Area

Functional Requirements: The combat aircraft ordnance loading area is primarily an apron where explosives are loaded/off-loaded from combat aircraft departing and/or returning from weapons training flights. This area is required when space is not available on the parking apron for loading mass detonating ordnance that meet the explosive quantity-distance requirements specified in Naval Sea Systems Command (NAVSEA) OP-5, Volume I (Ammunition and

Explosives Ashore-Safety Regulations for Handling, Storing, Production, Renovation, and Shipping). The weapons are not armed on this apron; see Category Code 115 35, Arming and De-arming Pad Policy. Due to ordnance handling taking place on this apron, its location with respect to other facilities shall be determined using the quantity-distance requirements and explosive prohibited areas specified in NAVSEA OP-5, Volume I. The apron shall be separated from any inhabited building by the inhabited building distance based on the total quantity of explosives (Net Explosive Weight) to be handled on the apron at one time. In addition, the airfield safety clearances specified in NAVFAC P-80.3, Airfield Safety Clearances apply and:

- The apron must be outside the runway primary surface
- Parked aircraft shall not penetrate any transitional surface
- No objects shall be sited within 100 feet of the edge of this apron

Evaluation: This covered by previous requirement 3.8 Arming and De-arming Pad.

Recommended Corrective Action: (See Attachment C)

3.12 Fire and Rescue Vehicle Alert Pad

Functional Requirements: This facility provides a parking area for an Immediate Response Alert Vehicle. The purpose of the Immediate Response Alert is to:

- Observe all landings and take-offs
- Respond immediately to any aircraft accident
- Provide timely rescue of personnel involved in emergencies

The pad should be large enough to park one appropriately sized fire truck and should be located no closer than 150 feet from the runway edge. The pad should not include a protective shelter or any other structure, which would violate airfield safety clearance criteria, for guidance see NAVFAC P-80.3, Airfield Safety Clearances. The pad should be connected to the runway by a 16-foot-wide access roadway. If there is no access to the alert pad other than from the runway, the parking space should be widened as required to allow the truck sufficient space to turn around.

Evaluation: During the Site Evaluation, the NAS Brunswick Fire Station Chief stated that NAS Brunswick was a Cat 2 airfield and had sufficient resources, both men and equipment, to support P-8A AIRCRAFT operations.

Recommended Corrective Action: No new manning or equipment requirements will be necessary to support P-8A aircraft. However, training and documentation for NAS Brunswick personnel on P-8A aircraft battery locations, cutout locations, equipment locations, etc., shall be required to ensure P-8A firefighting and rescue knowledge is sufficient.

3.13 Aircraft Truck Fueling Facility

Functional Requirements: An aircraft truck fueling facility is used to transfer fuel to refuel trucks for subsequent fueling of the aircraft. The fueling equipment is located on concrete islands that are designed to provide fuel from one side only. Where more than one island (one fueling outlet per island) is required, they shall be arranged parallel to each other with 15 feet between adjacent sides. The pavement between islands is sloped to a drain or catch basin, which is connected to a containment area in case of a fuel spill. See NAVFAC P-272, Drawing 14039987 for a sketch of a typical refuel fill stand and NAVFAC DM-22 for design criteria.

Evaluation: NAS Brunswick uses a contract fueling service that provides 24/7 fueling coverage for both assigned and transient aircraft. During the Site Evaluation, in was reported by NASB personnel that providing fueling service to P-8A aircraft will not require additional resources or personnel.

Recommended Corrective Action: NAS Brunswick will evaluate the capacity of their refueling stand and base fuel supply tanks to support the additional volume required by P-8A and propose any necessary modifications in the Site Plan. Training and documentation for NAS Brunswick personnel on P-8A fueling/defueling procedures shall be required prior to P-8A arrival at NASB.

3.14 121 30 Aircraft Defueling Facility

Functional Requirements: The Aircraft Defueling Facility is used to facilitate aircraft

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maintenance and defuel aircraft of contaminated fuel. Normally, a designated defuel truck is used to provide defueling services.

Evaluation: During the Site Evaluation, NASB personnel indicated that there is a dedicated 10,000 gallon defueling truck available.

Recommended Corrective Action: No corrective actions for either manpower or resources are necessary to support P-8A defueling requirements at NAS Brunswick. Training and documentation for NAS Brunswick personnel on P-8A fueling/defueling procedures shall be required prior to P-8A arrival at NASB.

3.15 123 10 Filling Station

Functional Requirements: The Filling Station is required to fuel equipment and support vehicles. The Filling Station includes fuel dispensing pumps, access roads, area lighting, shelter, and fire protection. The facility should be located in the vicinity of the aircraft Ground Support Equipment (GSE) shop.

Evaluation: During the Site Evaluation, it was determined the facility is adequate to support P-8A GSE requirements.

Recommended Corrective Action: The contractor will require station accounts to purchase fuel for contractor owned vehicles (e.g., trucks, vans, lift trucks, etc.), and miscellaneous station services. Consideration must be given to the increased number of aircraft supported.

3.16 124 30 Aircraft Ready Fuel Storage

Functional Requirements: Aircraft ready fuel storage tanks are required to provide an operating and reserve supply of jet fuel. At air stations, all aviation fuel storage is considered to be aircraft ready fuel. A ten-day supply is required to be stored at air stations within the continental U.S.

Evaluation: During the Site Evaluation, NASB personnel indicated that site storage tanks had sufficient excess capacity to support P-8A operations.

Recommended Corrective Action: NAS Brunswick should evaluate the capacity of their fuel storage in order to support the additional volume required by P-8A and identify any required modifications in the Site Plan.

3.17 149 50 Blast Deflector Fence

Functional Requirements: Blast deflector fences are structures that direct the exhaust from jet engines upward. They are used in congested, parking, and maintenance areas (aircraft power check pad) to protect personnel, equipment, and structures from the blast effect of jet engine exhaust.

Evaluation: During the Site Evaluation it was determined that no blast fences currently exist at NASB.

Recommended Corrective Action: Installation of a blast fence along the southern portion of Hangar Six ramp will allow for P-8A parking on the ramp.

4. ORGANIZATIONAL MAINTENANCE FACILITIES

4.1 Organizational Maintenance Facilities Composition

This section covers functional requirements, evaluations, and recommended actions for the facilities to support organizational maintenance. Category codes and nomenclatures covered in this section are listed below.

211 05 Maintenance Hangar – 0H Space
211 06 Maintenance Hangar – 01 Space
211 07 Maintenance Hangar – 02 Space

Maintenance Hangars are required to provide weather-protected shelter for the servicing and repair of Navy aircraft at the organizational level and emergency shelter for operable aircraft.

These hangars are to contain a hangar space (OH), crew and equipment space (01), and administrative space (02). Each of these spaces is assigned a separate category code.

4.2 211 05 Maintenance Hangar – OH Space

Functional Requirements: This space is high bay and is used for organizational maintenance of the aircraft in a controlled environment.

Evaluation – Hangar Six

General
Hangar Six is a new hangar with construction completed in 2005. It houses up to (6) P3 Orion aircraft. The hangar is divided into two major 3-bay areas, with a concrete blockhouse separating the two areas. The hangar is a steel-framed structure with concrete masonry sill walls. The exterior is sheathed in insulated metal siding. The hangar bays have hangar doors that open to the south. The hangar doors are fabric and have translucent sections. A multiple story shop and administrative area adjoins the hangar bay along the north hangar bay wall. The hangar bays can serve as washracks. The hangar is clean, tidy, free of FOD, and is in excellent condition. POV automobile parking is available to the immediate north of the shop and administrative areas.

Cranes
Five-ton bridge cranes are located throughout the hangar bay areas.

Heating
The Hangar Six airplane bays have a modern radiant and forced air gas-fired heating system that will provide comfortable working conditions throughout the winter months. The hangar door floor area is also heated.

Lighting
Hangar Six has an overhead high intensity discharge lighting system that provides adequate lighting for nighttime maintenance.

Compressed Air
Hangar Six has a low pressure compressed air system. This system has filtration and water

separation capability.

Hangar Fire Protection and Security Systems

The hangar bays have overhead and trench sprinkler systems, portable dry chemical and wheeled halon extinguishers, trench drains, and fire alarm systems throughout. The trench sprinkler system is AFFF. Emergency eye wash stations are located in the bays. The west bay has an airplane fuel cell vent system. Note that the hangar floor is sloped for fire water runoff. The hangar also has a closed circuit security TV system.

Hangar Aircraft External Power

The hangar has (4) 90kva 400Hz ground power receptacles in each major bay area. Because the ground power requirements for the P-8A are more sensitive/demanding than for the P3 Orion, it is strongly recommended that the Navy test their ground power systems to ensure they conform to the 737-800 tolerances as indicated in the 737 Facility and Equipment Planning Document D626A002. An excerpt from this document is shown in enclosure (4). Note that Hangar Six has (5) floor static ground points per P3 Orion parking space. The static grounding points were inspected 12-10-04. Although static grounds require a maximum of 10,000 ohms resistance

Hangar Floor

The hangar floor is in excellent condition. The floor is sealed. A review of Hangar Six NAVFAC drawing 2217551 / Sheet SB 108 indicates that the hangar bay concrete slab consists of 267mm (10.5") of unreinforced concrete over 305mm (12.0") of crushed stone. Per Boeing recommendations, a 737-700 with a weight of 120,000 pounds should be supported by a concrete slab of approximately 11", assuming a high-quality subgrade support condition

Note that airplane jacking may induce additional floor loading, and any floor slab analysis should consider jacking scenarios.

Hangar Dimensions

Horizontal dimensions of the hangar can support the housing of (4) P-8A aircraft simultaneously. Note that a minimum of 20' of horizontal clearance off each wing, 20' of horizontal clearance off the nose, and 25' of clearance off the tail are generally recommended for maintenance. If

these standards cannot be met, I strongly recommend that high procedural diligence be maintained whenever performing P-8A hangar movements.

Per NAVFAC drawing 2217670 / Sheet AE 301, the lower chord of the hangar door truss has a vertical clearance of 47'. The fabric hangar doors can be raised above this lower chord when the doors are in the fully-raised position. Per NAVFAC drawing 2217670 / Sheet AE 301, the hangar bays are measured to have a vertical clearance of approximately 54', given that the lowest point of the internal hangar ceiling is established by the 5 ton crane rail & hook height. Because the P-8A has vertical stabilizer height of 42'02", the hangar has adequate vertical clearance for P-8A maintenance operations.

Recommended Corrective Action: Confirm vertical measurements in the hangar as the above findings are solely based upon a drawing analysis. Perform a detailed analysis of hangar floor thickness to confirm suitability for P-8A.

Evaluation – Hangar Five

General

Hangar Five was constructed in 1980. It houses up to (7) P3 Orion aircraft. The hangar is divided into three major bay areas. The two outboard bay areas can house (3) P3 Orions each, with a central single airplane corrosion control bay between the two areas. The hangar is a steel-framed structure with concrete masonry sill walls. The exterior is sheathed in insulated metal siding. The hangar bays have metal horizontal sliding hangar doors. The doors do not have door pockets so they must be moved as necessary within the hangar envelope to accommodate airplane movements. A single story shop and administrative area adjoins the hangar bay along the east hangar bay wall. The hangar is clean, tidy, free of FOD, and is in excellent condition. POV automobile parking is available immediately to the east of the shop and administrative areas.

Cranes

Three-ton bridge cranes are located in portions of the hangar bay areas.

Heating

The Hangar Five airplane bays have a steam heating system that will provide comfortable working conditions throughout the winter months.

Lighting

Hangar Five has an overhead lighting system that provides adequate lighting for nighttime maintenance.

Compressed Air

Hangar Five has a low-pressure compressed air system. A compressed air placard states "100 psi maximum".

Hangar Fire Protection Systems

The hangar bays have overhead sprinkler systems, wall mounted AFFF fire hoses, pendent foam fire nozzles, fire extinguishers, and trench drains. Emergency eye wash stations are located in the bays. Note that the hangar floor is sloped for firewater runoff.

Hangar Aircraft External Power

Hangar Five receives 400 Hz ground power from ground power carts. The hangar has floor static ground points. The static grounding points were inspected 4/04, and state that the grounding resistance is less than 10 ohms.

Hangar Floor

The hangar floor is in good condition. The floor is painted. A review of Hangar Five NAVFAC drawing 2037463 / Sheet S 6 indicates that the hangar bay concrete slab consists of 11" of unreinforced concrete over 6" of (aggregate) base.

Hangar Dimensions

The hangar bays are only 117' deep and the vertical clearance at the hangar doors is 42'09". Because the lowest internal ceiling chord elevation is approximately 46'09", this hangar is

inadequate to support extended P-8A maintenance activities without first performing major hangar alterations.

Ramp Adjacent to Hangar Five (Parking Ramp to the South of the Hangar)

This concrete ramp in front of Hangar Five is adequate to accommodate P-8A hangar movements. The concrete thickness is unknown. Padeyes are used for static discharge grounding. The ramp appears to be in good condition with no obvious cracking or spalling

Note

The aircraft wing is being redesigned to remove the winglets. This redesign will result in the wingspan of the aircraft being increased; the exact dimensions are unknown at this time but not expected to be beyond 125'00".

Recommended Corrective Action: Review the hangar requirements and include modifications and/or new construction necessary to support P-8A. Evaluate ramp and hangar concrete thickness and include modifications and/or new construction necessary to support P-8A AIRCRAFT. If Hangar six is made available for P-8A squadrons in NASB Site Plan modifications to Hangar five would not be required at this time.

4.3 211 06 Maintenance Hangar – O1 Space

Functional Requirements: This space is generally behind the OH space and is at ground level. The organizational maintenance shops and production control are typically in these spaces.

The present concept is to have a centralized CLS maintenance team attached to the Wing not each squadron. The CLS maintenance team will support all P-8A aircraft at NASB and could be conducted from a centrally located facility.

Evaluation: Assuming overlap of P-3 and P-8A operations and maintenance, NASB is well suited with current facilities to support both sets of operations and associated organizational maintenance requirements assuming P-3 maintenance was performed in Hangar Five and P-8A maintenance was performed in Hangar Six.

Recommended Corrective Action: No corrective actions are required at this time.

4.4 211 07 Maintenance Hangar – O2 Space

Functional Requirements: This space provides administrative offices for the squadron.

Evaluation: Both Hangar Five and Hangar Six have sufficient administrative spaces for squadron activities.

Recommended Corrective Action: No corrective actions are required at this time.

4.5 CLS Administration

Functional Requirements: This space would provide for overall CLS Site Management. It would provide space for Site Managers, Spares Managers, overall data storage, and general administration services.

Evaluation: This is a new requirement derived from the CLS support concept. Based on site survey results, sufficient administrative spaces are available in both Hangar Five and Six to support CLS requirements.

Recommended Corrective Action: No corrective actions are required at this time. (Attachment D is provided to depict the Notional Wing Centralized Maintenance Concept.)

5. INTERMEDIATE MAINTENANCE FACILITIES

5.1 Intermediate Maintenance Facilities Composition

This section addresses the functional requirements, evaluations, and recommended actions for intermediate maintenance facilities at NAS Brunswick. It is anticipated that minimal intermediate maintenance facilities support will be required. The overall support concept will be evaluated during SDD.

5.2 211 54 Aviation Armament Shop

Functional Requirements: An aviation armament shop requires space and utilities to support intermediate maintenance of guided missile launchers, bomb racks, and pylons. A storage area and Armament Weapons SE work center also requires space in this shop.

Evaluation: During the Site Evaluation, it was determined the current aviation armament shop meets all requirements.

Recommended Corrective Action: P-8A will use the same weapons as P-3 aircraft. However, consideration must be given to the increased number of aircraft supported.

5.3 211 75 Parachute Survival Equipment Shop

Functional Requirements: A parachute and survival equipment shop provides space and utilities required to support inspection, repair, modification, and repacking of parachutes, rafts, and life vests during intermediate maintenance. Space is also provided for testing and repair of oxygen systems as well as aircrew personal equipment.

Evaluation: During the Site Evaluation, the squadron parachute and survival equipment facilities were evaluated.

Recommended Corrective Action: Recommend use Attachment A to help determine Parachute Survival Equipment and storage space requirements. Any modifications to existing spaces and/or new construction necessary to support these requirements should be provided in the NASB Site Plan.

5.4 218 60 Aircraft Ground Support Equipment Shop

Functional Requirements: Intermediate maintenance of aircraft GSE is performed in this shop. Ground support equipment, often referred to as yellow gear, includes such items as tow tractors, trucks, fork lifts, trailers, compressors, power generators, maintenance stands, jacks, and other GSE that support aircraft operations. The GSE shop requirement is based on the average number of on-board aircraft.

Evaluation: While specific requirements such as types and number of GSE are still TBD, the site survey evaluation indicated that sufficient infrastructure is available for supporting GSE maintenance requirements.

Recommended Corrective Action: No recommended actions at this time.

Note

Although the CLS team will maintain and operate the GSE, NASB will retain the responsibility of operator licensing In Accordance With (IAW) local regulations and policies.

5.5 218 61 Ground Support Equipment Holding Shed

Functional Requirements: The GSE Holding Shed provides a secure and sheltered storage area for GSE awaiting either repair or issue.

Evaluation: Due to limited time, and minimal information regarding specific requirements such as types and number of GSE and any particular facilities requirements for this space, no evaluation of existing spaces was done.

Recommended Corrective Action: No action recommended at this time.

6. SUPPLY FACILITIES

6.1 Supply Facilities Composition

This section provides the functional requirements, evaluations, and recommended actions to support SCM. The P-8A program will employ a non-traditional approach to SCM where the contractor provides for provisioning of spare parts to ensure all procured and stocked spare and repair parts are current with delivered aircraft configurations.

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6.2 441 10 General Warehouse Navy

Functional Requirements: A general warehouse provides bulk and bin storage, aisles, receiving, packing, crating, and administrative space. Facilities excluded from this category are all shop stores, ready issue stores, and miscellaneous storage not physically located in a supply department.

Evaluation: During the Site Evaluation Bldg 294 was evaluated Because of the non-traditional approach to SCM, general warehousing and Packaging, Handling, Storage and Transportation (PHS&T) will be controlled and maintained by the CLS team. This would require a dedicated space with controlled access.

Recommended Corrective Action: Determine modifications to existing spaces in Bldg 294 and/or new construction necessary to support these requirements. Results should be provided in the NASB Site Plan. Recommend use of Attachment A to help determine warehousing and PHS&T requirements.

6.3 441 30 Hazardous and Flammable Storehouse

Functional Requirements: The storehouse is similar to a general warehouse in most respects except provisions are made to prevent and remove, through proper ventilation, evaporated and gaseous fumes IAW National Fire Prevention Association (NFPA) Standard No. 30. Materials normally considered for storage in this category include paints, certain package petroleums, oil, lubricants, chemicals, acids, corrosive liquids, oxidizing materials, and other similar hazardous and/or flammable materials.

Evaluation: The hazardous and flammable storehouse Bldg XXX was not evaluated during the Site Evaluation. Limited hazardous and flammable storage capability will be also required in the warehouse area. The maintenance department will also require a similar capability adjacent to the hanger spaces area.

Recommended Corrective Action: This requirement should be covered in the Site Plan.

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TSC / MOCC Facilities

(See Attachment E)

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NAVAL AIR STATION (NAS) JACKSONVILLE, FLORIDA
MMA SITE EVALUATION REPORT
(PRELIMINARY)

1. INTRODUCTION

1.1 Purpose

The purpose of this Site Evaluation Report (SER) is to identify the support requirements for the Multi-mission Maritime Aircraft (MMA) during consideration of Naval Air Station (NAS) Jacksonville, Florida. The data provided is intended as guidance in developing a Site Plan and supporting DD Form 1391s for NAS Jacksonville.

1.2 Scope

The Preliminary SER delineates the support requirements for both training and operational facilities as established during the acquisition process and is supported by the P-3 Weapon System Planning Document (WSPD) and the OPNAV (N78) U.S. Navy Aircraft Inventory Budget Exhibit. The Preliminary SER is provided as a guide to be used in conjunction with the Boeing Facilities Requirements Document (FRD – Attachment A) in development of the proposed Site Plan.

Once the Preliminary SER has been reviewed and NAS Jacksonville personnel have developed a proposed Site Plan, the SER will be updated and used in facilities planning. Also the SER will be staffed at the appropriate levels to ensure concurrence by N78. The MMA Program Office will assist NAS Jacksonville in the development and tracking of the appropriate documentation to ensure a successful introduction of MMA.

1.3 Assumptions

The following assumptions were identified and used during the MMA Systems Development and Demonstration (SDD) contract and subsequent aircraft deployment.

a. Initial MMA skills training for Fleet personnel will be provided at the Fleet Replacement Squadron (FRS) Training Center at NAS Jacksonville.

b. Initial Operational Capability (IOC) will be evaluated using a Fleet squadron at NAS Jacksonville. The IOC squadron is defined as the first squadron fully manned, trained, and ready to deploy.

c. Follow-on operational training will be established at each Main Operating Base (MOB) for the Fleet MMA squadrons, and NAS Jacksonville will be the first MOB.

d. There will be a seven to eight-year overlap of MMA and P-3 training and support requirements at NAS Jacksonville.

e. A Performance Based Logistics contract will be used to provide full Contractor Logistic Support (CLS) for aircraft maintenance, Support Equipment (SE) management and repair, and Supply Chain Management (SCM).

f. The Navy will be required to provide the necessary facilities, infrastructure, and furnishings to support training, maintenance, SE, and SCM concepts established for MMA.

1.4 Milestones

The following list identifies milestones associated with the aircraft/personnel arrival dates, facilities requirements, and actions needed to support MMA IOC.

a. Development of the NAS Jacksonville Site Plan based on MMA requirements.

b. Development of documentation (DD Form 1391s, etc.) to support funding of the required new construction and modifications to support the Site Plan. The documentation to support the initial requirements should be started in Fiscal Year (FY) 2005.

c. FRS Integrated Training Center (ITC) facilities, infrastructure, and furnishings will be required in 4th quarter FY11 to facilitate equipment installation and testing in order to support the first class in FY12. (See Attachment A for details)

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d. Operational follow-on training facilities, infrastructure, and furnishings will be required in 3rd quarter FY12 to facilitate equipment installation and testing in order to support the first class in FY13. (See Attachment A for details)

e. Hangar spaces, ramp areas, and maintenance spaces will be required to provide adequate weather protection for aircraft and maintenance personnel in FY12 in order to support the first three FRS aircraft. By FY17, the FRS is projected to have a total of 12 aircraft. (See Section 4.2 and Attachment A for details)

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f. Hangar spaces, ramp areas, and maintenance spaces will be required to provide adequate weather protection for aircraft and maintenance personnel in order to support the first squadron of six aircraft with support personnel arriving in FY12 to support IOC. Transition of the second and subsequent squadrons will be dependent on the production and delivery schedule of the aircraft.

Note

The full compliment of 24 aircraft (12 FRS aircraft and two six-plane Fleet squadrons) and approximately 207 support personnel are scheduled to be in place at Jacksonville by FY17. (See Table 1-1, Projected Aircraft and Personnel Schedule).

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1.5 Proposed Site Plan

1.5.1 To Be Determined

Note:

Figures 1-1, 1-2, and 1-3 reflect NAS Jacksonville as it is. These figures will be updated to reflect changes contained in the proposed Site Plan and DD Form 1391s upon approval.

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Table 1-1

Projected Aircraft and Support Personnel by Year

Fiscal Year	FY12	FY13	FY14	FY15	FY16	FY17
Number of Aircraft	8	9	13	17	21	24
Billet Title						
Site Manager	1	1	1	1	1	1
Admin Assist	1	1	1	1	1	1
Stores Mgr	1	1	1	1	1	1
Storekeeper LD	3	3	3	3	3	3
Storekeeper A	2	2	3	4	5	5
Storekeeper B	2	2	3	4	5	5
Receiving QA	2	2	2	3	3	3
Logs/Records	2	2	2	3	3	3
Safety/HAZMAT	1	1	1	2	2	2
Tool Control	3	3	3	3	3	3
SE Manager	1	1	2	2	2	2
SE Admin	1	1	2	4	5	6
SE Technician LD	1	1	1	2	3	4
SE Technician A	2	2	4	4	5	6
SE Technician B	2	2	4	4	5	6
Instructor (Training/Records)	1	1	1	1	2	2
Maintenance Manager	1	1	1	1	1	1
Maintenance Planning	3	3	3	4	5	5
Admin Assist	1	1	1	1	1	1
Field Service Rep	2	2	3	3	3	3
Shift Supervisors	3	3	3	4	5	5
A/C Technician LD	3	3	3	5	8	8
A/C Technician A	9	9	14	21	27	27
A/C Technician B	10	10	18	23	30	33
AvEquip Technician	8	8	12	16	20	21
Line Division	6	6	8	10	15	15
Supervisor (Det)	--	--	2	2	4	4
Maintenance Control (Det)	--	--	2	2	4	4
A/C Technician A (Det)	--	--	7	7	9	9
A/C Technician B (Det)	--	--	7	7	9	9
Admin (Det)	--	--	2	2	4	4
Line Division (Det)	--	--	4	4	5	5
Total	72	72	124	154	199	207

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2. TRAINING FACILITIES

This section addresses the functional requirements, evaluations, and recommended corrections for both initial and follow-on training.

2.1 Initial and Operational Training Facilities

Functional Requirements: An MMA ITC will be required at the FRS to accommodate two Operational Flight Trainers (OFTs), two Tactical Operational Flight Trainers (TOFTs), two Weapons Tactics Trainers (WTTs), one Integrated Avionics Trainer (IAT), one Weapons Load Trainer (WLT), and several Part Task Trainers (PTTs) for each of the crew stations. (See Figure 2-1)

The ITC will also include space for classrooms, training devices, support equipment, tools, supplies, Computer-Based Training (CBT) stations, internal and external network intercommunication equipment, training media storage, Contractor Maintenance Support (CMS) offices, student study rooms, instructor offices, management and briefing areas, and communication closets. The ITC must be constructed to the Secret level with a Secure Compartmented Information Facility (SCIF) included within the building.

Evaluation: During the seven to eight-year transition period from P-3 to MMA training and operations, the FRS will be required to provide initial training simultaneously for both the P-3 and the MMA aircrew. As a result of this overlapping transition period, plus the construction phase, and since MMA can not recapitalize on any of the existing P-3 trainers, there are no current P-3 training facilities/spaces that can be converted to MMA training without severely impacting ongoing P-3 training efforts. The ITC will be required in 4th Quarter FY11 to facilitate equipment installation and testing in order to support the first classes in 2nd Quarter FY12. The floor plan of the ITC is expected to be approximately 93,511 square feet.

Recommended Corrective Action: The FRS will require an ITC as outlined in Attachment A (Table 2-1 provides the projected personnel required to support the ITC).

Table 2-1

Training CMS

	Two Separate Training Facilities at NAS Jacksonville, FL		One Training Facility at Jax
	FRS	Operational	FRS & Operational Jacksonville
Training Program Management	1.0		1.0
Librarian	1.0		1.0
Maint/Doc - HAZ MAT	1.0		1.0
PTS Device Tech	3.0	2.0	4.0
MTS Device Tech	2.0	0.0	2.0
Computer Tech	3.0	0.5	3.0
Network Tech	1.0	0.5	1.0
Supply Support	1.0		1.0
Configuration Management	1.0		1.0
CLS Maintenance Instructors	1.0	0.0	1.0
OFT/TOFT Operators	4.0	4.0	6.0
Courseware Support	1.0	0.0	1.0
Security	2.0	2.0	2.0
Total	**22**	**9**	**25**

2.2 171 35 Operational Trainer Facilities

Functional Requirements: The Operational Trainer Facility will accommodate one OFT, one TOFT, and two WTTs.

Training facilities will also include space for classrooms, training devices, support equipment, tools, supplies, CBT stations, internal and external network intercommunication equipment, training media storage, CMS offices, student study rooms, instructor offices, management and

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briefing areas, and communication closets. The Operational Training Facility must be constructed to the Secret level with a SCIF included within the building.

Evaluation: Currently, the FRS and operational users share the P-3 trainer suites at NAS Jacksonville. The reduction of on-aircraft training in the MMA increases the need for a separate operational trainer facility. As a result of the overlapping P-3/MMA transition period, plus the construction phase, and since MMA can not recapitalize on any of the existing P-3 trainers, there are no current P-3 training facilities/spaces that can be converted to MMA training without severely impacting ongoing P-3 training efforts.

The facilities, infrastructure, and furnishings to accommodate the training requirements of the MOB training system installation will be required in FY12 to support the first squadron Training and Readiness requirements in FY13. The MOB operational training facility is expected to be approximately 19,147 square feet

Recommended Corrective Action: The operational squadrons require a separate training system from the FRS. If land-space considerations require co-locating the Operational and FRS trainers, additional floor space must be added to the ITC to accommodate the increase of trainers. Efficiencies can be achieved with this combination in office space, manpower, and infrastructure requirements. The Operational Trainer Facility requirements are outlined in Attachment A (Table 2-1 provides the projected personnel required to support the Operational Training Facility).

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3. OPERATIONAL FACILITIES

3.1 Operational Facilities Composition

This section addresses the functional requirements, evaluations, and recommended actions for the operational facilities required to support the MMA.

3.2 Airfield Pavement Criteria

The strength of pavements required at an airfield is determined by the maximum gross weight of the aircraft it must support. Data for airfield pavement design criteria peculiar to the MMA

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includes aircraft gear configuration, number of wheels, wheel spacing, tire size, and inflation pressures (See Figure 3-1). The airfield pavement criteria for the MMA landing on rigid and flexible pavement (specifically, the Aircraft Classification Numbers (ACNs)) are illustrated in Figures 3-2 and 3-3. The Pavement Classification and Pavement Index Numbers (PCNs/PCIs) are contained in Table 3-1 and Figure 3-4.

Table 3-1

Runway PCN Values

STATION	EFD	RUNWAY	RUNWAY PCN	LENGTH (ft)	WIDTH (ft)
JACKSONVILLE	SOUTH	14-32	42/F/B/W/T	6,000	200
JACKSONVILLE	SOUTH	9-27	50/R/C/W/T	8,000	200

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MAXIMUM DESIGN TAXI WEIGHT	LB	184,700
MAXIMUM DESIGN TAKE OFF	LB	184,200
MAXIMUM DESIGN LANDING WEIGHT	LB	154,600
NOSE GEAR TIRE SIZE	IN.	27X7.7-15 12 PR
NOSE GEAR TIRE PRESSURE	PSI	185
MAIN GEAR TIRE SIZE	IN	H44.5 X16.5 – 21 28 PR
MAIN GEAR TIRE PRESSURE	PSI	204 THRU 205

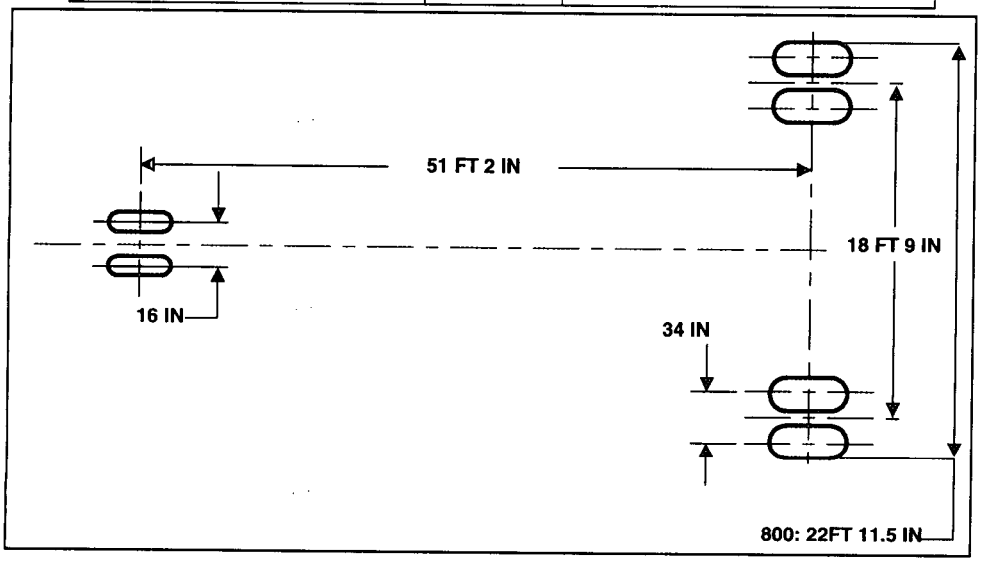

Figure 3-1 Maximum Weights, Tire Size, and Landing Gear Footprint

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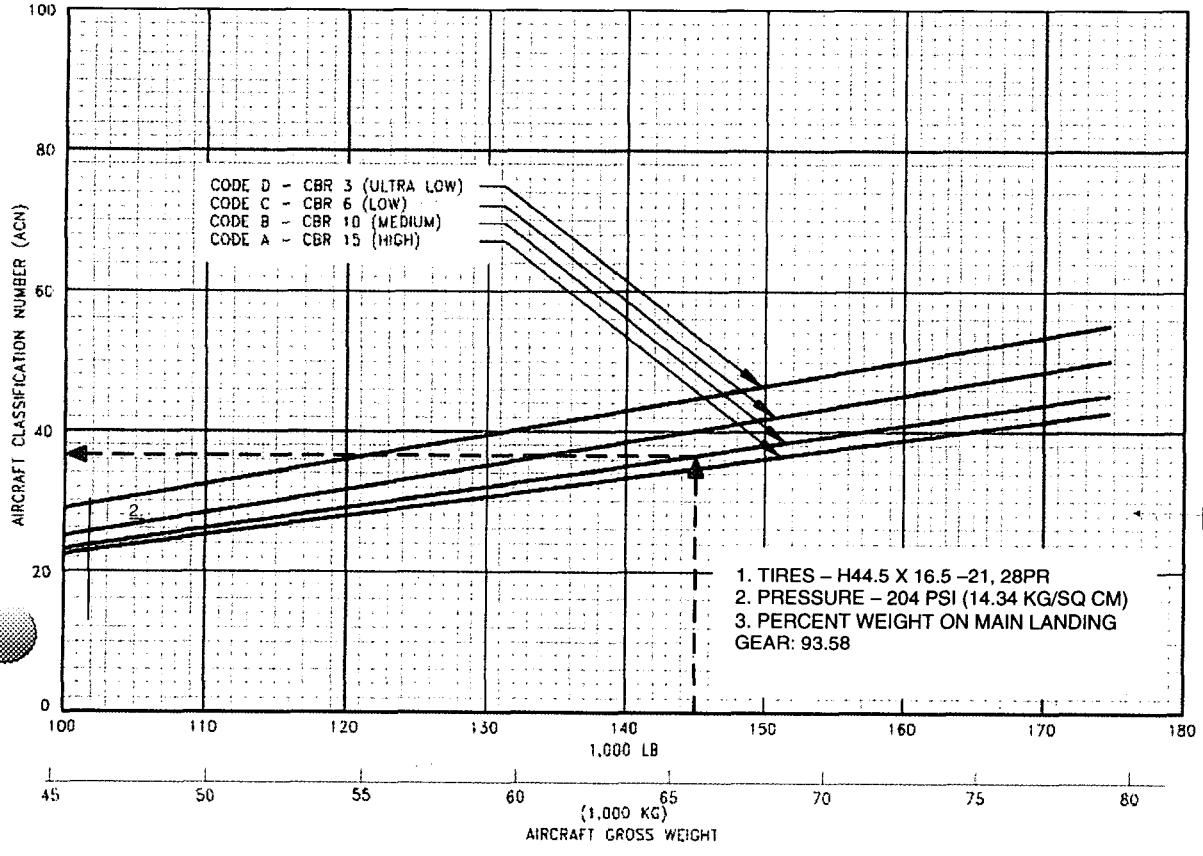

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Figure 3-2 ACNs for Flexible Pavement

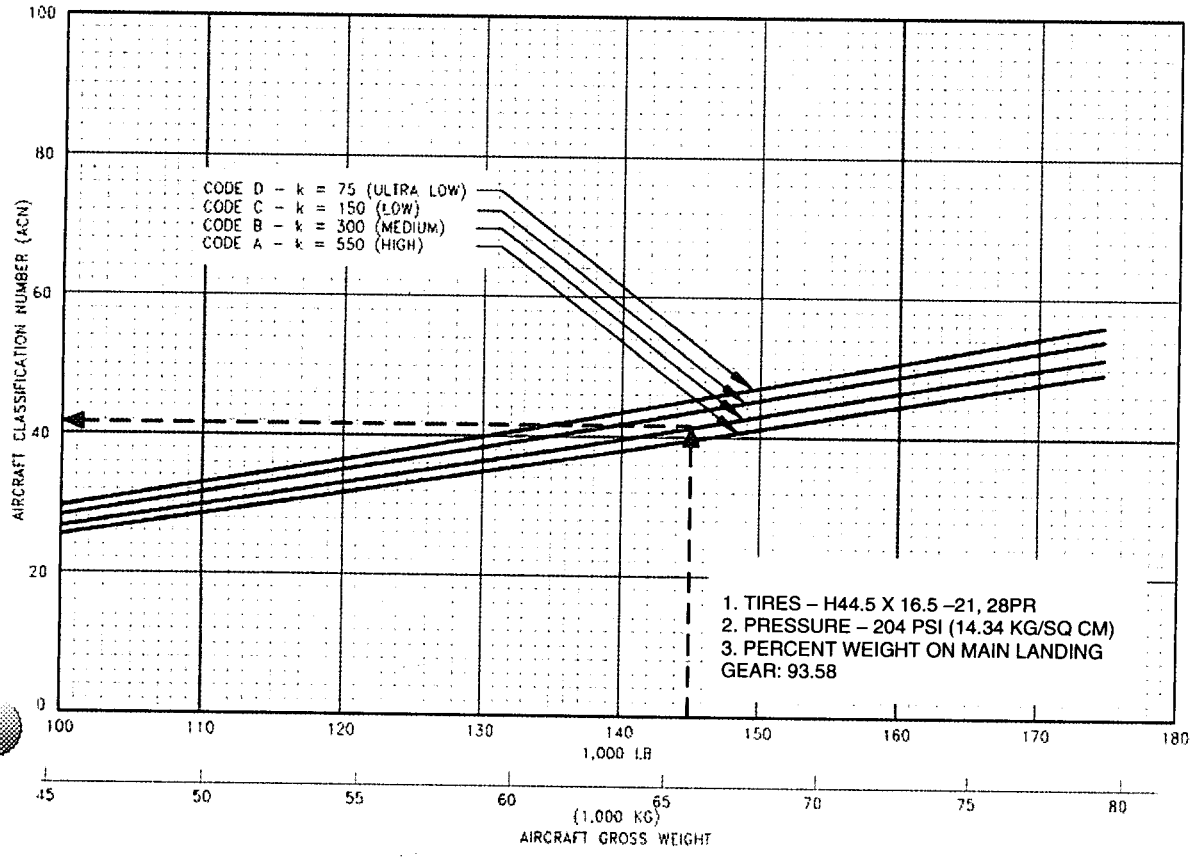

Figure 3-3 ACNs for Rigid Pavement

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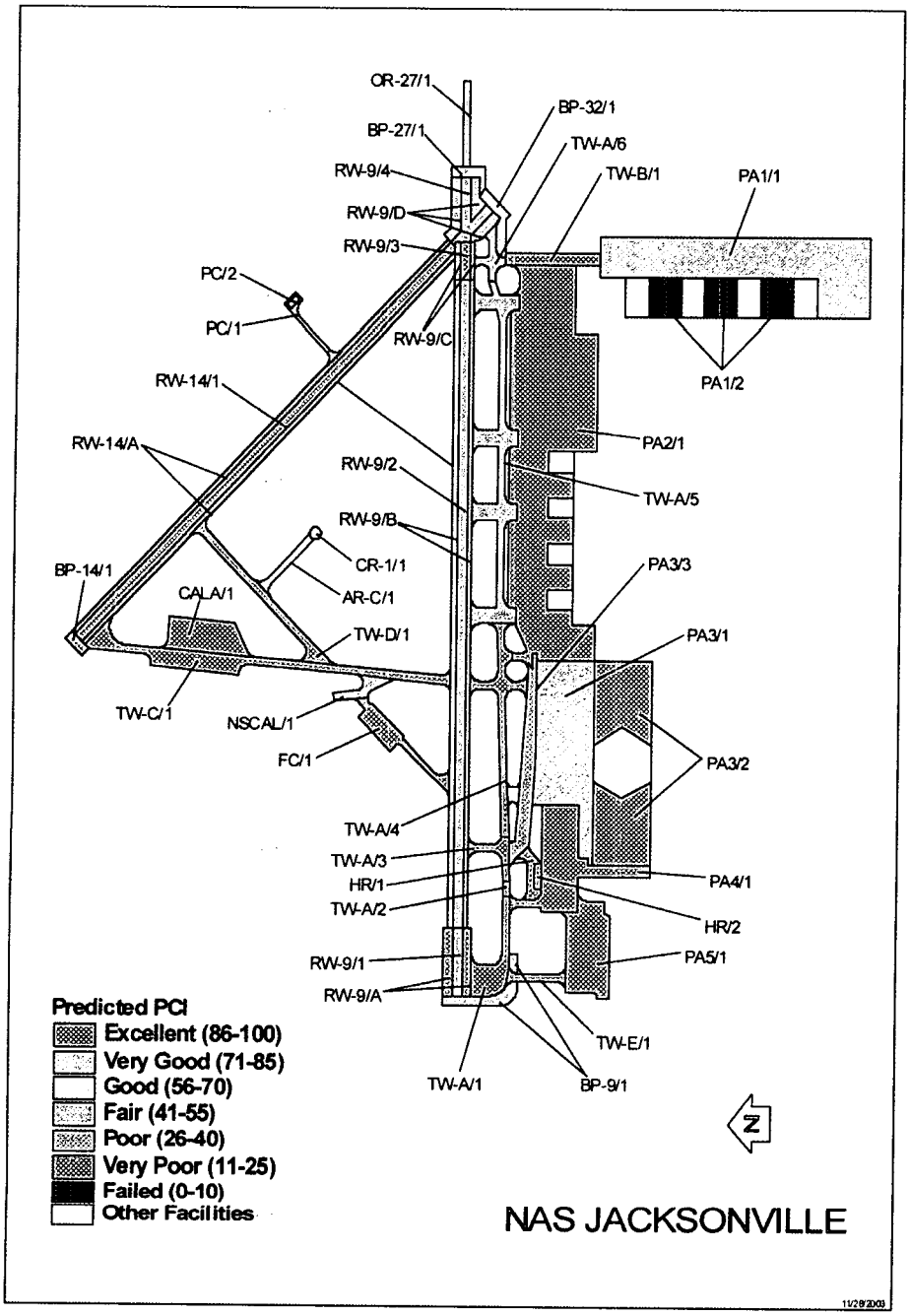

Figure 3-4 PCI Values (Dec 2004)

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3.3 111 10 Runway/Fixed Wing

Functional Requirements: Runways are paved surfaces for aircraft takeoff and landing. Traffic density, airfield mission, operational procedures, and local environmental factors determine an airfield's required number of runways. Runway orientation is determined by analyzing wind data, terrain, generated noise levels, and local development planning. See Naval Facilities Engineering Command (NAVFAC) DM-21.1 for wind rose analysis and design criteria.

Evaluation: NAS Jacksonville runway 9-27 is suitable for operation of MMA at 184,200 lbs maximum design takeoff and 154,600 lbs landing weights. The actual performance of the aircraft will be verified during the SDD phase. General airfield information is shown in Figures 1-1 and 1-2. The ACNs for the MMA takeoff and landing on flexible and rigid pavement are shown in Figures 3-2 and 3-3. The PCNs and PCIs are contained in Table 3-1 and Figure 3-4.

Recommended Corrective Action: The existing runway is suitable within takeoff and landing weight limits; however, NAS Jacksonville should investigate solutions for runway 9-27 clear zone tree growth intrusion into the imaginary surfaces as defined in NAVFAC P-80.3. (See Figure 3-5 below) The specific Operating Procedures at NAS Jacksonville would need to be adjusted for altitude, temperature, safety factor(s), and effective gradient(s) as required by the P-80. Also, NAS Jacksonville should continue with a suitable maintenance and repair program to maintain appropriate PCN and PCI ratings for runways.

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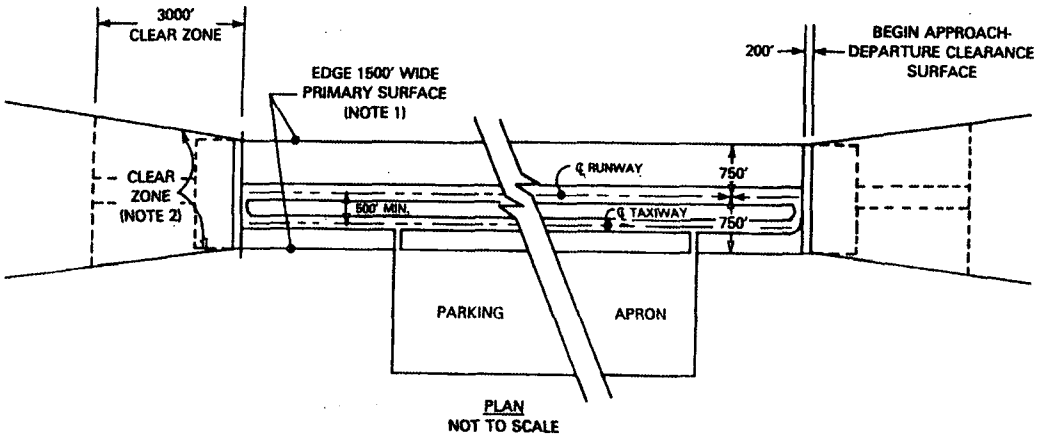

Figure 3-5 Class B Runway – Typical Layout

3.4 112 10 Taxiway

Functional Requirements: Taxiways should be located to provide a smooth flow of aircraft traffic to and from runways and service and parking areas. Criteria specified in NAVFAC P-80 are sufficient to meet the requirements of the aircraft.

Evaluation: NAS Jacksonville taxiways are suitable for operation of MMA with a maximum design taxiway weight of 184,700 pounds. The ACNs for the MMA on flexible and rigid pavement are shown in Figures 3-2 and 3-3. The PCNs and PCIs are contained in Figure 3-4.

Recommended Corrective Action: Continue with a suitable maintenance and repair program to maintain appropriate PCN and PCI ratings for taxiways.

3.5 113 20 Aircraft Parking Apron

Functional Requirements: Aircraft parking aprons consist of paved areas in close proximity to maintenance hangars to provide spaces, tie down points, line maintenance, loading, unloading, and servicing of aircraft in addition to providing parking space. There is no standard size or apron configuration. The size is based on the type and number of aircraft to be parked, the

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requirement for squadron integrity, and 45 versus 90 degree parking. The area required includes parking space, wing-tip separation between aircraft, and interior/peripheral taxi lanes. Aprons used for ordnance handling require special siting considerations. (See category code 116 56)

Evaluation: NAS Jacksonville has a Military Construction (MILCON) project under design adjacent to Building 30, the VP-30 hangar complex. A second phase to the MILCON will provide an additional parking apron. Figures 3-6a and 3-6b illustrate a possible apron parking solution and the required dimensions.

It was noted during the Site Evaluation that the aircraft tie downs for the apron adjacent to Building 30 were laid out solely to support P-3 aircraft. With the introduction of MMA and the approximately eight years of overlap between MMA arrival and the P-3's departure, the existing and new apron layouts for aircraft, tie downs, and static grounds should be modified to provide the maximum flexibility of aircraft parking for both the P-3 and MMA.

Recommended Corrective Action: Utilizing the projected aircraft arrival information provided in Table 1-1, the SER, and existing MILCON projects, a comprehensive aircraft parking layout should be developed based upon apron requirements for existing and projected aircraft. Landing gear layout, tire pressures, and size data is provided in Figure 3-1. The Site Plan should allow for tie downs in areas that are not peripheral taxi lanes to maximize apron flexibility. Consideration should also be given to adding tie down anchors to the apron in front of Building 30.

Note

The aircraft wing is being redesigned to remove the winglets. This redesign will result in the wingspan of the aircraft being increased; the exact dimensions are unknown at this time.

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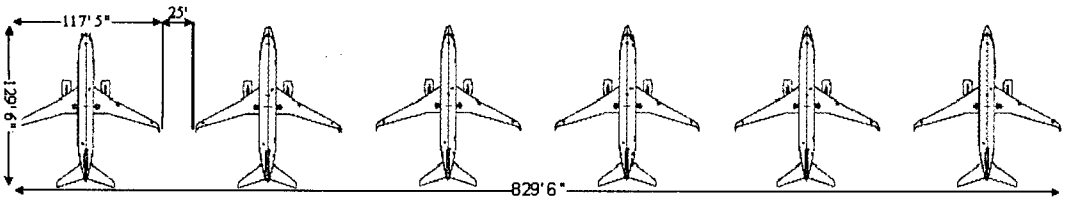

Figure 3-6a Requirement in feet for 6 parked MMA

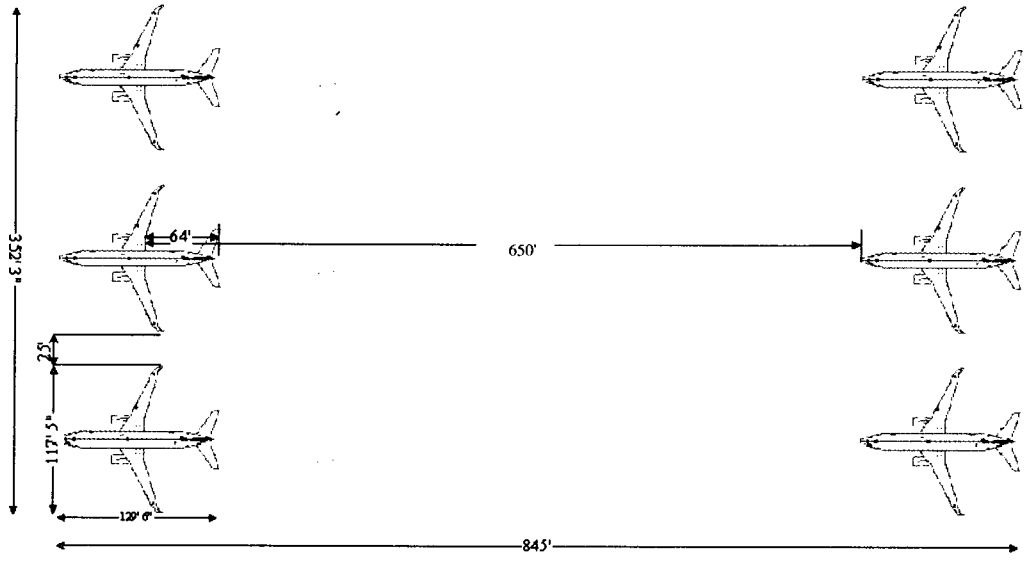

Figure 3-6b Estimated separation to keep aircraft outside the 35 MPH exhaust velocity contour at breakaway power

Figure 3-6 Notional Parking Arrangements

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3.6 116 10 Aircraft Washrack Pavement

Functional Requirements: Aircraft washracks are provided at all air installations for cleaning of aircraft in conjunction with periodic maintenance. A minimum of one washrack is required at each NAS, Naval Air Facility, and equivalent Marine Corps facilities. The total number of washracks required at an installation depends on numbers and types of on-board aircraft.

Evaluation: NAS Jacksonville has three washracks that service existing assigned aircraft. Each of these has been equipped with an overhead structure that provides a secure place for personnel to attach safety devices while washing aircraft upper portions. It appears that the existing facilities may be able to be utilized for the MMA; however, there are serious concerns regarding wing tip and tail clearances within the existing structure.

Recommended Corrective Action: Evaluate the existing washrack and overhead structure dimensions to ensure compatibility with the aircraft.

Note

The aircraft wing is being redesigned to remove the winglets. This redesign will result in the wingspan of the aircraft being increased; the exact dimensions are unknown at this time.

3.7 116 20 Aircraft Compass Calibration Pad

Functional Requirements: An aircraft compass calibration pad is a paved area in a magnetically quiet zone where the compass in the aircraft is calibrated. There are two types of calibration pads.

- Type I is used with the magnetic compass calibration set
- Type II includes a compass rose and turntable and may be used with or without the compass calibration set

Either pad type will only handle one aircraft at a time. A minimum of one pad is provided at each station. Access to the calibration pad is oriented to facilitate aircraft entering the pad facing magnetic north. Each pad also requires a target placed at a known but arbitrary bearing at a distance of approximately one-half mile from the pad and visible from both the aircraft and the

compass calibration set.

Evaluation: The present compass calibration pad is not adequate to support the MMA. Compass calibration will be required after the compass has been removed and replaced. (See Figure 3-7)

Recommended Corrective Action: The size of the compass calibration pad must be reviewed to ascertain what required actions are necessary to accommodate MMA.

3.8 116 35 Arming and De-arming Pad

Functional Requirements: This arming and de-arming pad provides a paved area for activating or deactivating weapons systems on-board aircraft. It is utilized at all Navy and Marine Corps air installations where gunnery, rocketry, and/or missile firing are conducted. The number of pads at an installation depends upon the demand at that installation. The pads are sited at either end of the primary runway and, if additional pads are required, at either end of the crosswind runways. Aircraft utilizing the pad normally park parallel to the runway headed in the direction providing the maximum length of undeveloped space along the extended longitudinal centerline of the aircraft. In no case is arming or de-arming of propelled ordnance allowed when the aircraft is facing inhabited areas on or near the air installation. For design criteria, see NAVFAC DM-21. A waiver to airspace clearance criteria is not required when the arming and de-arming pad is sited as shown in DM-21.

Evaluation: The aircraft will require an arming and de-arming pad. The existing pad has taxi lines and tie down points to accommodate five P-3 aircraft. This configuration will require a review to ascertain the necessary actions so that MMA aircraft may be adequately supported.

Recommended Corrective Action: An aircraft-parking layout is required in order to determine the suitability of the existing arming and de-arming pad. The pad is serving a variety of carrier-based and patrol type aircraft. Consideration should be given to adding additional tie down anchors to the apron should the parking plan warrant. (See Figure 3-7)

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3.9 116 42 Blast Protective Pavement

Functional Requirements: Blast protective pavement provides blast erosion protection for the areas adjacent to the ends of the runways, arming and de-arming pads, and aircraft engine power check pads. These areas are subject to the repetitive high velocity and temperature erosion effects of jet engine exhaust wakes.

Evaluation: The MMA has a relatively low temperature exhaust. However, the velocity wake is very large. It appears that the existing blast pavements will be adequate.

Recommended Correction: Testing during the SDD phase should verify the blast wake, and the impact on pavements should be determined at Patuxent River NAS.

3.10 116 45 Line Vehicle Parking

Functional Requirements: Line vehicle parking spaces contiguous to taxiway and parking aprons are allocated to mobile equipment assigned for flight line use. Parking areas shall be selected to permit optimum efficiency in the use of equipment (for example, squadron vehicles will normally be assigned space close to the squadron maintenance hangar) and to conform to lateral safety clearances for existing and projected airfield pavements. Where weather requires and the clearances permit, shelter for line vehicles may be provided.

Evaluation: Specific types and numbers of line vehicles required by the CLS contractor are currently unknown. Because of the non-traditional maintenance concept for this aircraft, the vehicles requiring this parking will be controlled and maintained by the CLS contractor. This requires a dedicated space as close as possible to the aircraft line and CLS contractor maintenance personnel.

Recommended Corrective Actions: Type and quantity of aircraft line vehicles should be determined during SDD. Line vehicle parking should be identified in the Site Plan.

3.11 116 56 Combat Aircraft Ordnance Loading Area

Functional Requirements: The combat aircraft ordnance loading area is primarily an apron where

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explosives are loaded/off-loaded from combat aircraft departing and/or returning from weapons training flights. This area is required when space is not available on the parking apron for loading mass detonating ordnance that meet the explosive quantity-distance requirements specified in Naval Sea Systems Command (NAVSEA) OP-5, Volume I (Ammunition and Explosives Ashore-Safety Regulations for Handling, Storing, Production, Renovation, and Shipping). The weapons are not armed on this apron; see Category Code 115 35, Arming and De-arming Pad Policy. Due to ordnance handling taking place on this apron, its location with respect to other facilities shall be determined using the quantity-distance requirements and explosive prohibited areas specified in NAVSEA OP-5, Volume I. The apron shall be separated from any inhabited building by the inhabited building distance based on the total quantity of explosives (Net Explosive Weight) to be handled on the apron at one time. In addition, the airfield safety clearances specified in NAVFAC P-80.3, Airfield Safety Clearances apply and:

- The apron must be outside the runway primary surface
- Parked aircraft shall not penetrate any transitional surface
- No objects shall be sited within 100 feet of the edge of this apron

Evaluation: The combat aircraft ordnance loading area has taxi lines and tie down points to accommodate five P-3 Aircraft. The present configuration will require a review to ascertain the required actions for support of the MMA. (See Figures 3-7 and 3-8)

Recommended Corrective Action: Any modification necessary to support ordnance loading should be identified in the Site Plan.

3.12 116 60 Fire and Rescue Vehicle Alert Pad

Functional Requirements: This facility provides a parking area for an Immediate Response Alert Vehicle. The purpose of the Immediate Response Alert is to:

- Observe all landings and take-offs
- Respond immediately to any aircraft accident
- Provide timely rescue of personnel involved in emergencies

The pad should be large enough to park one appropriately sized fire truck and should be located

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no closer than 150 feet from the runway edge. The pad should not include a protective shelter or any other structure, which would violate airfield safety clearance criteria, for guidance see NAVFAC P-80.3, Airfield Safety Clearances. The pad should be connected to the runway by a 16-foot-wide access roadway. If there is no access to the alert pad other than from the runway, the parking space should be widened as required to allow the truck sufficient space to turn around.

Evaluation: During the Site Evaluation, the Aviation Fire Fighting office at the Naval Air Systems Command stated that NAS Jacksonville had the proper size and number of fire trucks to support P-3 operations, and that the MMA would place no additional requirements on the base.

Recommended Corrective Action: No new requirements will be necessary to support MMA aircraft.

3.13 121 20 Aircraft Truck Fueling Facility

Functional Requirements: An aircraft truck fueling facility is used to transfer fuel to refuel trucks for subsequent fueling of the aircraft. The fueling equipment is located on concrete islands that are designed to provide fuel from one side only. Where more than one island (one fueling outlet per island) is required, they shall be arranged parallel to each other with 15 feet between adjacent sides. The pavement between islands is sloped to a drain or catch basin, which is connected to a containment area in case of a fuel spill. See NAVFAC P-272, Drawing 14039987 for a sketch of a typical refuel fill stand and NAVFAC DM-22 for design criteria.

Evaluation: During the Site Evaluation, insufficient information was available to determine the impact of increased demand on truck fueling facilities.

Recommended Corrective Action: NAS Jacksonville will evaluate the capacity of their refueling stand to support the additional volume required by MMA and propose any necessary modifications to the Site Plan.

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3.14 121 30 Aircraft Defueling Facility

Functional Requirements: The Aircraft Defueling Facility is used to facilitate aircraft maintenance and defuel aircraft of contaminated fuel. Normally, a designated defuel truck is used to provide defueling services.

Evaluation: During the Site Evaluation, insufficient information was available to determine the impact of increased demand on truck defueling facilities.

Recommended Corrective Action: NAS Jacksonville will evaluate the capacity of their defueling stand to support the additional volume required by MMA and propose any necessary modification in the Site Plan.

3.15 123 10 Filling Station

Functional Requirements: The Filling Station is required to fuel equipment and support vehicles. The Filling Station includes fuel dispensing pumps, access roads, area lighting, shelter, and fire protection. The facility should be located in the vicinity of the aircraft Ground Support Equipment (GSE) shop.

Evaluation: During the Site Evaluation, it was determined the facility is adequate to support MMA requirements.

Recommended Corrective Action: The contractor will require station accounts to purchase fuel for contractor owned vehicles (e.g., trucks, vans, lift trucks, etc.), and miscellaneous station services. Consideration must be given to the increased number of aircraft supported.

3.16 124 30 Aircraft Ready Fuel Storage

Functional Requirements: Aircraft ready fuel storage tanks are required to provide an operating and reserve supply of jet fuel. At air stations, all aviation fuel storage is considered to be aircraft ready fuel. A ten-day supply is required to be stored at air stations within the continental U.S.

Evaluation: During the Site Evaluation, insufficient information was available to determine the impact of increased demand on aircraft ready fuel storage facilities.

Recommended Corrective Action: NAS Jacksonville will evaluate the capacity of their fuel storage in order to support the additional volume required by MMA and identify any modifications to the Site Plan.

3.17 149 50 Blast Deflector Fence

Functional Requirements: Blast deflector fences are structures that direct the exhaust from jet engines upward. They are used in congested, parking, and maintenance areas (aircraft power check pad) to protect personnel, equipment, and structures from the blast effect of jet engine exhaust.

Evaluation: During the Site Evaluation it was determined the blast deflector fence is sufficient.

Recommended Corrective Action: No new requirements will be necessary to support MMA.

4. ORGANIZATIONAL MAINTENANCE FACILITIES

4.1 Organizational Maintenance Facilities Composition

This section covers functional requirements, evaluations, and recommended actions for the facilities to support organizational maintenance. Category codes and nomenclatures covered in this section are listed below.

211 05 Maintenance Hangar – 0H Space

211 06 Maintenance Hangar – 01 Space

211 07 Maintenance Hangar – 02 Space

Maintenance Hangars are required to provide weather-protected shelter for the servicing and repair of Navy aircraft at the organizational level and emergency shelter for operable aircraft. These hangars are to contain a hangar space (OH), crew and equipment space (01), and administrative space (02). Each of these spaces is assigned a separate category code.

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4.2 211 05 Maintenance Hangar – OH Space

Functional Requirements: This space is high bay and is used for organizational maintenance of the aircraft in a controlled environment.

The initial requirement to support the first three MMA FRS aircraft in FY12 will be in addition to the existing P-3 aircraft presently being maintained. The remaining MMA FRS aircraft will be scheduled to arrive FY13 through FY17. It is anticipated the P-3 aircraft supporting the FRS will be reduced over the same period but no schedule has been provided to date.

The present plan is to stand down a P-3 squadron in FY12 for training and transition to the first MMA squadron. Although there is no present schedule for establishment of the second MMA squadron, it will also be preceded by standing down and transitioning a P-3 squadron.

Evaluation: During the Site Evaluation, it was determined none of the existing hangars were tall enough nor deep enough to house MMA, which is much larger than the P-3 aircraft (Figures 4-1 and 4-2 provide specific measurements). Based on the current support concept and Boeing's recommendations during the Site Evaluation, it was determined that three maintenance bays would be adequate to support the full complement of aircraft currently planned for NAS Jacksonville.

MMA is also longer and has a larger wingspan than the C-40. (Figure 4-3 provides two pictures of the C-40 in Hangar 1000)

Note

The aircraft wing is being redesigned to remove the winglets. This redesign will result in the wingspan of the aircraft being increased; the exact dimensions are unknown at this time.

Recommended Corrective Action: Evaluate the hangar requirements and propose modifications and/or new construction necessary to support MMA in the Site Plan.

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4.3 211 06 Maintenance Hangar – O1 Space

Functional Requirements: This space is generally behind the OH space and is at ground level. The organizational maintenance shops and production control are typically in these spaces.

The present concept has the CLS maintenance team resident at the Air Station and not the squadron. The CLS maintenance team will support both FRS and squadron aircraft and could be accomplished from a centrally located facility. The present plan is to ramp up the CLS team between FY12 and FY17 (See Table 1-1).

Evaluation: Based on the overlap of P-3 and MMA there were no spaces available to support the initial requirements.

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, pages C-7 and C-8) to determine maintenance team facilities requirements. NAS Jacksonville determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

4.4 211 07 Maintenance Hangar – O2 Space

Functional Requirements: This space provides administrative offices for the squadron.

Evaluation: This space was not available for evaluation during the site survey.

Recommended Corrective Action: Any modification to existing spaces and/or new construction necessary to support these requirements should be provided in the Site Plan.

4.5 CLS Administration

Functional Requirements: This space would provide for overall CLS Site Management. It would provide space for Site Managers, Spares Managers, overall data storage, and general administration services.

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Evaluation: This is a new requirement derived from the CLS support concept. No spaces were available to review.

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, page C-7) to determine administration facilities requirements. NAS Jacksonville determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

5. INTERMEDIATE MAINTENANCE FACILITIES

5.1 Intermediate Maintenance Facilities Composition

This section addresses the functional requirements, evaluations, and recommended actions for intermediate maintenance facilities at NAS Jacksonville. It is anticipated that minimal intermediate maintenance facilities support will be required. The overall support concept will be evaluated during SDD.

It was determined that the following categories will not be impacted by the introduction of MMA at NAS Jacksonville.

211 01 Aircraft Acoustical Enclosure
211 08 Airframe Shop
Hydraulics/Pneumatics Shop
Welding Shop
Structures Shop
Fiberglass/Plastics/Composites Shop
Machine Shop
Cleaning Shop
Nondestructive Inspection (NDI) Shop
Paint Shop
Tire and Wheel Shop
211 21 Engine Maintenance Shop
Compressor Power Unit Test Stand

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211 45 Avionics Shop

116 65 Tactical Support Van Pad

211 55 Aviation Armament Support Equipment Holding Shed

211 81 Engine Test Cell

211 89 Power Check Pad without Sound Suppression

218 50 Battery Shop

5.2 211 54 Aviation Armament Shop

Functional Requirements: An aviation armament shop requires space and utilities to support intermediate maintenance of guided missile launchers, bomb racks, and pylons. A storage area and Armament Weapons SE work center also requires space in this shop.

Evaluation: During the Site Evaluation, it was determined the current aviation armament shop meets all requirements.

Recommended Corrective Action: MMA will use the same weapons as P-3 aircraft. However, consideration must be given to the increased number of aircraft supported. (See Table 1-1)

5.3 211 75 Parachute Survival Equipment Shop

Functional Requirements: A parachute and survival equipment shop provides space and utilities required to support inspection, repair, modification, and repacking of parachutes, rafts, and life vests during intermediate maintenance. Space is also provided for testing and repair of oxygen systems as well as aircrew personal equipment.

Evaluation: During the Site Evaluation, the squadron facilities were not evaluated.

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, page C-7) to determine Parachute Survival Equipment and storage space requirements. NAS Jacksonville determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

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5.4 218 60 Aircraft Ground Support Equipment Shop

Functional Requirements: Intermediate maintenance of aircraft GSE is performed in this shop. Ground support equipment, often referred to as yellow gear, includes such items as tow tractors, trucks, fork lifts, trailers, compressors, power generators, maintenance stands, jacks, and other GSE that support aircraft operations. The GSE shop requirement is based on the average number of on-board aircraft.

Evaluation: Due to limited time, and minimal information regarding specific requirements such as types and number of GSE and any particular facilities requirements for this space, no evaluation of existing spaces was done. Because of the non-traditional support concept, the GSE will be controlled and maintained by the CLS contractor. This requires a dedicated space with controlled access.

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, pages C-8 and C-9) to determine GSE shop requirements. NAS Jacksonville determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

Note:

Although the CLS team will maintain and operate the GSE, NAS Jacksonville will retain the responsibility of operator licensing In Accordance With (IAW) local regulations and policies.

5.5 218 61 Ground Support Equipment Holding Shed

Functional Requirements: The GSE Holding Shed provides a secure and sheltered storage area for GSE awaiting either repair or issue.

Evaluation: Due to limited time, and minimal information regarding specific requirements such as types and number of GSE and any particular facilities requirements for this space, no evaluation of existing spaces was done.

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Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, page C-8) to determine GSE holding shed requirements. NAS Jacksonville determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

6. SUPPLY FACILITIES

6.1 Supply Facilities Composition

This section provides the functional requirements, evaluations, and recommended actions to support SCM. The MMA program will employ a non-traditional approach to SCM where the contractor provides for provisioning of spare parts to ensure all procured and stocked spare and repair parts are current with delivered aircraft configurations.

6.2 441 10 General Warehouse Navy

Functional Requirements: A general warehouse provides bulk and bin storage, aisles, receiving, packing, crating, and administrative space. Facilities excluded from this category are all shop stores, ready issue stores, and miscellaneous storage not physically located in a supply department.

Evaluation: Because of the non-traditional approach to SCM, general warehousing and Packaging, Handling, Storage and Transportation (PHS&T) will be controlled and maintained by the CLS team. This requires a dedicated space with controlled access.

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, page C-9) to determine warehousing and PHS&T requirements. NAS Jacksonville determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

6.3 441 30 Hazardous and Flammables Storehouse

Functional Requirements: The storehouse is similar to a general warehouse in most respects except provisions are made to prevent and remove, through proper ventilation, evaporated and

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gaseous fumes IAW National Fire Prevention Association (NFPA) Standard No. 30. Materials normally considered for storage in this category include paints, certain package petroleums, oil, lubricants, chemicals, acids, corrosive liquids, oxidizing materials, and other similar hazardous and/or flammable materials.

Evaluation: The hazardous and flammables storehouse was not available for evaluation during the Site Evaluation. Supply Support will require hazardous and flammables storage capability in the warehouse area. The FRS and each squadron will also require a similar capability adjacent to the hanger spaces area.

Recommended Corrective Action: This requirement should be covered in the Site Plan.

DRAFT FOR REVIEW AND COMMENT
BY GOVERNOR'S OFFICE, STATE PLANNING OFFICE, DECD AND BNAS TASK FORCE

Economic Impact: Realignment of the Brunswick Naval Air Station

Summary:

The economic impact to Brunswick and the surrounding Bath/Brunswick region as determined by the Department of Defense is flawed.

1. The Department of Defense has calculated the economic impact based on the assumption that all 5?????? military personnel at BNAS are active duty. Of the total military positions at BNAS, 2,317 are ACTIVE duty military. The majority of the remainder is Reserve military who commute to the BNAS on weekends and drill dates as required.
2. The Department of Defense has assumed that Brunswick is located within the Portland Standard Metropolitan Statistical Areas (SMSA) for purposes of economic impact analysis. Brunswick is not located in the Portland SMSA and the numbers are flawed.

The following should be specifically considered:

- BNAS realignment will result in a loss of 2,317 full time *active duty military* employees leaving the area. *This is a reduction of 85% of the total current active duty military.*
- Unemployment will increase to between 10-11%
- The local real estate market will decline and reduce real estate valuations
- Real Estate Valuation impacts revenues to the community
- Navy Housing Privatization issues impact Town funding
- School student loss reduce the quality of education for all

The information is provided to encourage the Department of Defense to.....??? It is organized by the following

Labor Market Impact:

Note: The following labor market information is specifically for the Town of Brunswick as the local area and the Bath/Brunswick Labor Market as a regional area.

- BNAS employment (both civilian and military) represent over 33% of the Town of Brunswick labor force and 13% of the Bath/Brunswick Labor Market.
- Unemployment rates, as a result of realignment, would increase from 4.7% in February, 2005 to between 10% and 11% of the Bath/Brunswick Labor market, depending on base data used.
- The number of people employed in the Bath/Brunswick Labor Market would decrease by 7%.

Town of Brunswick and Bath/Brunswick Regional Labor Market Impacts		
	NASB	**Percent**
Town of Brunswick Labor Market:		
Total BNAS Jobs	5,227	
Total Non-BNAS Jobs in Town of Brunswick Labor Market	10,687	
Total BNAS and Non-BNAS Jobs in Town of Brunswick Labor Market	15,914	
Percent of BNAS Jobs in Town of Brunswick Labor Market		33%
Percent of Non-BNAS Jobs in Town of Brunswick Labor Market		67%
Total Percent BNAS and Non-BNAS employees		100%
Bath/Brunswick Labor Market:		
Total BNAS Jobs	5,227	
Total Non-BNAS Jobs in Bath/Brunswick Labor Market	35,610	
Total BNAS and Non-BNAS Jobs in Bath/Brunswick Labor Market	40,837	
Percent of BNAS Jobs in Bath/Brunswick Labor Market		13%
Percent of Non-BNAS Jobs in Bath/Brunswick Labor Market		87%
Total Percent BNAS and Non-BNAS employees		100%
Impact of BNAS Realignment on Labor Markets:		
Civilian Job Losses (source: DOD)	61	
Indirect Job Loss Projections (source: SPO)	1,194	

Total Civilian and Indirect Job Loss	2,255	
Resulting Unemployment Rate in Bath/Brunswick Labor Market		10%
Resulting Bath/Brunswick Civilian Labor Market? Realignment	37,905	
Percent Decrease in Bath/Brunswick Labor Market Participation		7%

- BNAS realignment will result in a loss of 2,317 full time *active duty military* employees leaving the area. *This is a reduction of 85% of the total current active duty military.*
- Military Reserves will be reduced, leaving 1,075 Reserves at BNAS. These reserves operate on a weekend and reserve training basis only, with up to 50% residing outside the state. The Reserves are primarily ground based reserves; no flight related staff will remain.
- Civilian Jobs Loss: The military identifies 61 civilians that are to be laid off. That is the "low projection". If the present ratio of military to civilian support were to remain, the civilian job loss number may grow to as many as 615. That would more than double the present unemployment rate (including indirect job elimination).
- Summary: Overall, jobs will continue decline as a result of the decline in military jobs through 2009 (REMI Model, May 2005). The result will be a depressed job market in the local economy.

Payroll Impact:

BNAS produces $295 million in direct and indirect payroll per year. To place this in context with the local area, that monetary amount is over half of all payroll produced by employees in Sagadahoc County on an annual basis. Projections, (which do not include the high projection for lost civilian jobs) suggest a loss of $136.2 million in payroll from the BNAS realignment, or over 50% of the BNAS present payroll.

BNAS Payroll and Payroll Impacts Before Realignment				
		Direct	Indirect	Total
BNAS Payroll	Civilian	$22,000.000	$10,800,000	$32,800,000
	Military	$125,000,000	$53,400,000	$178,400,000
Procurement		$0.00	$84,500,000	$84,500,000
Total Earnings		$147,000,000	$148,700,000	$295,700,000
Employment		5,227 employees	4,918 employees	10,145 employees

Earnings Per Employee		$28,123	$30,236	$29,1147
Procurement			$2,736	$2,736
BNAS Payroll Realignment Impacts				
		Direct Loss	Indirect Loss	Total Loss
BNAS Payroll	Civilian	$2,000,000	$1,000,000	$3,000,000
	Military	$67,500,000	$19,400,000	$86,900,000
Procurement		$0	$46,300,000	$46,300,000
Total Earning Lost		$69,500,000	$66,700,000	$136,200,000
Decrease after Realignment		-53%	-55%	-44%

Source: Brunswick DECD, State Planning Office, 2005

- Salaries can range (including salary and housing assistance) from $42,990 to $74,250. These salaries are within the median income range of the region; there loss will negatively impact average median salary.
- The REMI model for impact on various economic sectors in the region shows the following:
    - Retail sales loss of $15.5 million annually.
    - Real estate and rental losses exceeding $12.5 million annually.
    - The financial and insurance markets will decrease by almost $12 million annually.
    - The construction industry will decline by almost $10 million annually
    - Declines occur to 17 different sectors in the economy and are projected to continue through at least the next ten years.

Real Estate Impact:

The impact to the Brunswick area real estate market is dramatic. It should be viewed in three areas; impact on the Town government due to the privatization of military housing in November of 2004, impact on landlords/renters and impact on the home owner market.

1. Navy Housing Privatization Impact on BNAS Realignment

In November 2004 Brunswick and Topsham both entered into Agreements with GMH Communities Trust (Northeast Housing LLC) a partner with the Navy, which acquired housing units while enabling the Navy to retain the

underlying land. As a result of this "military housing privatization", Brunswick and Topsham started providing some services to the military housing in exchange for a payment in lieu of taxes.

In Brunswick, the Town expects to receive $544,000 per year to provide negotiated services to 463 housing military housing units which are located "outside the fence". The Town has anticipated receipt and expenditure of those funds as part of the budgeting process.

Loss of $544,000 yearly income to the Town of Brunswick used to fund municipal services is significant. The Town of Topsham.....

2. Off Base Housing Impact:

Military representatives estimate that up to 2,000 personnel live off base, with the majority residing in the towns of Brunswick, Bath and Topsham. Of the total off-base personnel, it is estimated that 500 own their own homes and 1,500 are in rental units. Up to 2,000 housing units within the core housing market area are at-risk for becoming vacant. Most of these units are at the middle to lower end of the housing market.

The flow of BNAS personnel from the housing market will depress the local housing market and significantly depress the local construction industry. It is estimated that 56% of the military families live in Brunswick, suggesting that as many as 149 homes may be owned by military personnel. Approximately one fifth of those homes purchased each year are new construction, therefore, the loss of annual construction revenue to Brunswick is $5.9 million.

The housing market will see a flood of homes put on the market which will have a negative impact on the number of properties sold and total sales, resulting in substantial losses to the local, regional and state real estate economy. Assuming that military families make up 149 home purchases in any one year in Brunswick, the loss of buyers could impact the number of properties sold, reducing the number of sales by between 31% and 54% annually.

Residential Property		
Year	# Of Properties Sold	Total Sales
2001	276	$42,307,896
2002	390	$59,370,250.40
2003	453	$82,550,781
2004	482	$114,112,534

2005	71 (1st Quarter)	$15,989,210 (1st Quarter)

Source: Brunswick Assessing Office: 2005

3. Rental Market Impact:

The impact on rents and price levels in the community would be substantial. It is estimated that Navy personnel living in private housing in the communities account for 30-35% of those living in multifamily units. Taking privatization and off base housing together, current Navy plans would result in 50% of the apartments becoming vacant. This will result in a dramatic loss of rental income to landlords, devaluation of property values and loss of tax income to the towns, the potential for disinvestment and other social and economic impacts.

School Impact

Children of military employee at BNAS average approximately 20% of the student population in the Town of Brunswick School Department each year. In the past ten years, between 595 to 671 military-dependent children have been included in the approximate 3,300 total school population. In addition to the numbers positive social benefits that these children have brought to the community, the School Department receives approximately $1.1 million in Federal Education Aid.

Lost students and lost funding would all decrease the quality of education provided to the remaining residents of Brunswick by reducing the diversity of students and the programs that can be offered.

Impact on Local Colleges

- University of Maine-Augusta (located in Bath) currently enrolls approximately 400 students. Of that total, 20 - 25% are active duty or dependents of active duty military, which calculates to 80 – 100 students. Base realignment would result in the loss of approximately $400,000 in revenue, reduced class offerings and loss of employment.
- Southern Maine Community College estimates a decline in student enrollment by 10-15%. The college would correspondingly reduce classes and professors.

Retail Sales Impact

It is estimated that 83% of BNAS military personnel live in Brunswick, or its immediate surround communities. With a payroll reduction of $69.5, it can

be expected that the impact in retail sales will be significant. The REMI model produced by RKG (May, 2005) suggests that there would be a decrease of $22.9 million in retail trade venues throughout Cumberland County. The Brunswick area would be hardest hit

Assuming that 50% of the military payroll is spent in Brunswick and applying an average disposable income figure for military families of 33%, the annual retail sales loss would be approximately $11 million per year. This would likely apply across all retail categories. Its impact on the local economy is substantial.

Military Retiree Community

An estimated 5,700 military retiree's and family members live in the area to take advantage of the region and BNAS. The impact of base realignment on this group is unknown however, it is known that currently the 60% of all commissary customers are military retirees. Of the total commissary customers, 33% are active duty, 7% are reserves and the remainder are retirees.

Spousal Impact:

Between 60-75% of all full-time active duty military spouses work in the local job market. The role of spouses in the local economy can not be overstated. Recent surveys of the job center suggests that military spouses play an important role in role in participating in local part time jobs as well as participating to fill both part time and full time teaching needs in the school system. They are also active volunteers.

Quality of Life Indices:

The national media views Brunswick as a great location to live. The cultural and natural amenities it offers attracts attract many looking to relocate to a unique and special places. Among the military, Brunswick is a very popular place to retire, with the existing base being a critical reason for that choice. Over 5,700 military retirees and their families have chosen to live in the Brunswick area (Census, Town of Brunswick).

Other populations that find Brunswick a great place to live are:

- Cyclists: AARP (Nov. /Dec. issues) identified Brunswick as the 8th best place to cycle in the nation.

- Money magazine identifies Brunswick as the 3 best place to retire (July, 2000)
- Outside Magazine identifies Brunswick at one of the Top 40 College Towns in the Country
- Brunswick has been featured as a top retirement community in Where to Retire (November, 2003), The *New Retirement: The Ultimate Guide to the Rest of Your Life* (Cull inane, Fitzgerald), and *Where to Retire in Maine* (Doudera)

The popularity of Brunswick as a place to live extends to the military as well. Expansion Management published the results of a survey in its magazine in November of 2004. Among the 354 metros that house military bases, Brunswick was ranked 74, or in the upper 20%. The report, which tested for a variety of quality of life indices, ranked Brunswick high in quality of life, education, lack of crime, housing availability, recreation and leisure, among others. Brunswick ranked high in quality of life, education, and recreation. Brunswick ranked number one in its population group for have the lowest crime rate. These and many other characteristics make Brunswick one of the top places for military personnel to live or retire to.

DCN: 11596

Fact Sheet: President Bush Signs *Maritime Security Policy National Security/Homeland Security Presidential Directive*

PRESIDENTIAL ACTION

The President has signed a maritime security policy directive outlining his vision for a fully coordinated U.S. Government effort to protect U.S. interests in the maritime domain. This document, the Maritime Security Policy National Security/Homeland Security Presidential Directive (NSPD/HSPD), reiterates the President's commitment to maritime security and aims to integrate and align all U.S. Government maritime security programs and initiatives into a comprehensive and cohesive national effort involving appropriate Federal, State, local and private sector entities.

Since the attacks of September 11th, Federal departments and agencies have aggressively addressed the challenge of maritime security with programs such as the Container Security Initiative, the Proliferation Security Initiative, and Operation Safe Commerce. The Maritime Security Policy NSPD/HSPD integrates and leverages these and other existing initiatives and policies while ensuring interagency alignment and focus.

Specifically, actions taken in the Presidential Directive include:

- **Strategic Vision** – The Directive details a strategic vision for maritime security while encouraging and supporting ongoing initiatives.

- **Maritime Security Policy Coordinating Committee** – The Directive creates a standing inter-agency committee to serve as the primary forum for coordination of U.S. Government maritime security polices. As part of its charter, the policy coordinating committee will review existing inter-agency practices, coordination, and execution of U.S. policies and strategies relating to maritime security, and will recommend improvements to all of them as warranted.

- **National Strategy for Maritime Security** – The NSPD/HSPD directs that a National Strategy for Maritime Security be developed that builds on current efforts and capitalizes on existing strategies, tools, and resources. The Secretaries of Defense and Homeland Security will lead a collaborative inter-agency effort to develop the strategy.

- **Maritime Domain Awareness (MDA)** – The Senior Steering Group for MDA, co-chaired by representatives of the Secretaries of Defense and Homeland Security, coordinates national efforts to develop an enhanced capability to identify threats in the maritime domain as distant from our shores as possible. The Directive charges the MDA Senior Steering Group to develop a national plan for maritime domain awareness.

- **Global Maritime Intelligence Integration** – The NSPD/HSPD directs the development of a plan to use existing capabilities to integrate all available intelligence on a global basis regarding the location, identity, and operational capabilities and intentions of potential threats to U.S. interests in the maritime domain.

- **Domestic Outreach** – The NSPD/HSPD directs the creation of an engagement plan that ensures the interests of State and local governments and the private sector are considered in the Federal Government's development and implementation of maritime security policies.

- **Coordination of International Efforts and International Outreach** – The Directive details a coordination process for all maritime security initiatives undertaken with foreign governments and international organizations and requires the development of a comprehensive outreach strategy to solicit international support for an improved global maritime security framework.

- **Maritime Threat Response** – The NSPD/HSPD directs the development of a comprehensive National Maritime Response Plan that reflects lead agency roles and responsibilities with regards to threats in the maritime domain. The plan shall supplement the National Response Plan required by HSPD-5 and complement the critical infrastructure protection plans required by HSPD-7 and the domestic all-hazards preparedness goals and structures required by HSPD-8.

- **Maritime Infrastructure Recovery** – The NSPD/HSPD directs the development, in consultation with key industry stakeholders, of recommended minimum Federal standards for maritime recovery operations, and a comprehensive national maritime infrastructure recovery standards and a plan, complementary to the national preparedness goals and standards required by HSPD-8.

- **Maritime Transportation System Security** – The NSPD/HSPD directs the development of recommendations, in consultation with appropriate industry representatives, for improvements to the national and international regulatory framework with respect to licensing, carriage, communications, safety equipment, and other critical systems for all private vessels, including commercial vessels, operating in the maritime domain.

- **Maritime Commerce Security** – The NSPD/HSPD directs the development, in consultation with appropriate industry representatives, of a comprehensive maritime supply chain security plan.

BACKGROUND ON PRESIDENTIAL ACTION

The security of the maritime domain is a global issue. The United States, in cooperation with our allies and friends around the world and our State, local, and private sector partners, will work to ensure that lawful private and public activities in the maritime domain are protected against attack and criminal and otherwise unlawful or hostile exploitation. These efforts are critical to global economic stability and growth and are vital to the interests of the United States.

It is the policy of the United States to take all necessary and appropriate actions, consistent with U.S. law, treaties, and other international agreements to which the United States is a party, to enhance the security of and protect U.S. interests in the maritime domain, including the following:

- Preventing terrorist attacks or criminal acts or hostile acts in, or the unlawful exploitation of, the maritime domain, and reducing the vulnerability of the maritime domain to such acts and exploitation;
- Enhancing U.S. national security and homeland security by protecting U.S. population centers, critical infrastructure, borders, harbors, ports, and coastal approaches in the maritime domain;
- Expediting recovery and response from attacks within the maritime domain;
- Maximizing awareness of security issues in the maritime domain in order to support U.S. forces and improve United States Government actions in response to identified threats;
- Enhancing international relationships and promoting the integration of U.S. allies and international and private sector partners into an improved global maritime security framework to advance common security interests in the maritime domain; and
- Ensuring seamless, coordinated implementation of authorities and responsibilities relating to the security of the maritime domain by and among Federal departments and agencies.

These actions must be undertaken in a manner that facilitates global commerce and preserves the freedom of the seas for legitimate military and commercial navigation and other legitimate activities as well as the civil liberties and the rights guaranteed under the Constitution.

Today's Presidential action supports these objectives and serves as the foundation for this policy.

MUCH WORK ALREADY UNDERWAY

Since the attacks of September 11th, Federal departments and agencies have aggressively addressed the challenge of maritime security with several initiatives. Today's action seeks to leverage such existing initiatives and policies, facilitate inter-agency dialogue, and ensure interagency integration and alignment while eliminating

duplication of effort and avoiding the creation of redundant policies with regard to maritime security. These existing efforts include:

- **Container Security Initiative (CSI)** – Under the CSI program, the screening of containers that pose a risk for terrorism is accomplished by teams of Customs and Border Protection officials deployed to work in concert with their host nation counterparts. Twenty of the world's largest ports have agreed to join CSI and are at various stages of implementation.

- **Proliferation Security Initiative (PSI)** – PSI is an effort by the United States to lead the international community to stop the proliferation of weapons of mass destruction (WMD), their delivery systems, and related materials to states and non-state actors of proliferation concern by interdicting WMD-related shipments and shutting down proliferation networks. It responds to the growing challenge posed by these materials through coordination with like-minded states that have a stake in combating WMD proliferation and the willingness to take steps to stop the flow of such items at sea, in the air, or on land. Over 60 nations support PSI.

- **Megaports Initiative** – Under the Megaports Initiative, the United States works closely with international partners to equip major foreign seaports with radiation detection equipment that will enhance their capabilities to deter, detect, and interdict illicit trafficking in nuclear and other radioactive material as it moves through the global maritime shipping network. The Megaports Initiative helps reduce the probability that these materials could be used in a weapon of mass destruction or a radiological dispersal device against the United States, its allies, and friends.

- **Advance Information** – Through the 96-hour Advance Notice of Arrival (ANOA), ships must notify the U.S. Coast Guard 96 hours before arriving in a U.S. port and provide detailed information about the crew, passenger, cargo, and voyage history. Additionally, all sea carriers with the exception of bulk carriers and approved break bulk cargo are required to provide proper cargo descriptions and valid consignee addresses 24 hours before cargo is loaded at the foreign port for shipment to the United States through the Sea Automated Manifest System. By obtaining this information well in advance of arrival, the U.S. Government is able to make determinations about which vessels require additional scrutiny, including security precautions such as an at-sea boarding or armed escort during transit to and from port.

- **Customs-Trade Partnership Against Terrorism (C-TPAT)** – A public/private initiative that teams government with importers, carriers, brokers, and other industry sectors to emphasize a seamless security-conscious environment throughout the entire commercial process, from manufacture through transportation and importation to ultimate distribution. Under the C-

TPAT initiative, business participants providing verifiable security information are eligible for special benefits.

Begun in November, 2001, C-TPAT now has more than 7,000 members and is the largest public/private Federal government partnership in U.S. history.

- **Joint Harbor Operations Centers** – A Joint Navy-Coast Guard initiative establishing interagency prototype joint harbor operations centers in select Navy homeports to improve both port security and force protection capabilities. Prototypes have been completed in San Diego, California, and Hampton Roads, Virginia.

- **Operation Safe Commerce (OSC)** – The U.S. Government is working with business interests, the largest U.S. container load centers, and the maritime industry to implement Operation Safe Commerce. OSC serves as a test bed to evaluate technologies and business practices that protect and secure the end-to-end global supply chain, enhance maritime security, and facilitate the flow of commerce. OSC's results will inform U.S. policies that protect America's vital cargo supply routes against terrorist attack and ensure the safe and expeditious movement of cargo from origin to destination.

Maritime Security is and remains a priority of the President. The Maritime Security Policy NSPD/HSPD represents another indicator of his commitment to the security of U.S. interests in the maritime domain.

DCN: 11596

HEARING BOOK
NAVAL AIR STATION BRUNSWICK

EXECUTIVE SUMMARY

The Department of Defense recommendation to realign elements at Naval Air Station Brunswick, specifically to remove the P-3 and C-130 aircraft squadrons and their supporting personnel, results from a ***failure to properly apply the Base Closure and Realignment Criteria.***

The DOD failed to properly consider NASB's Military Valve, including:

1. Current and future mission capabilities
2. The availability and condition of land, facilities, and associated airspace
3. The cost of operations and the manpower implications.

Further, the DOD ***improperly evaluated:***

5. The extent and timing of potential costs and savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed the costs.
6. The economic impact on existing communities in the vicinity of NASB, the State of Maine, and the New England region

ANALYSIS PER BRAC CRITERIA

A. MILITARY VALUE

1.a. CURRENT MISSION CAPABILITES

The Department of Defense Recommendation on NAS Brunswick "retains an operational airfield in the northeast that can be used to support the homeland defense mission, as needed, and maintains strategic flexibility." Amplifying this, the CNO has stated that the recommendation was founded on a military value case, maintaining a "strategic capability."[i]

In the case of NAS Brunswick the relevant requirement is for "maximum awareness of the threats in the approaches as well as the air and maritime interception capabilities necessary to maintain US freedom of action, [and to] secure the rights and obligations of the United States, and protect the nation at a safe distance.[ii] Maritime Patrol and Reconnaissance Aircraft (MPRA) are recognized as an essential part of the forces needed to meet this requirement. Indeed, since the attacks of September 11, 2001, Brunswick-based P-3C aircraft have flown maritime domain awareness missions under Operation Vigilant Shield, monitoring high-interest and possible threat merchant shipping in the North Atlantic.

The recommendation to relocate NAS Brunswick's MPRA and dedicated personnel and equipment to NAS Jacksonville is contradictory. The missions necessary to defend the nation's most populous region cannot be performed from Jacksonville. Specifically, the recommendations failed to recognize the following *essential and unique capabilities* of NAS Brunswick:

- The only remaining fully operational active-duty airfield in the northeastern United States
- Adjacent to all North Atlantic sea lanes
- Location permits live weapons missions without overland transit
- Fully-secured perimeter for force protection
- Dual runways for flexibility and resilience

The recommendation to relocate NAS Brunswick's C-130 squadron (Fleet Logistics and Support Squadron 62) to Jacksonville also ignores current capabilities. VR-62 is the only Navy airlift squadron in New England. NASB provides *the* location which best facilitates transatlantic airlift missions by the C-130. Further, the existence of a VR base in this location provides maximum flexibility and efficiency for CONUS Navy and joint airlift missions within and from the northeastern U.S.

The recommendation to remove Brunswick's aircraft would significantly and dangerously reduce the operational readiness of the Navy to meet its stated requirements.

1.b. FUTURE MISSION CAPABILITES

The recommendation to realign NASB fails to recognize the Air Station's capabilities for future support of key platforms and programs.

(1). The Navy's Site Survey process for the Multimission Maritime Aircraft (MMA), which will replace the current P-3C, was conducted in March 2005 by a Navy survey team with representatives from the Naval Air Systems Command (NAVAIR), Commander of Naval Installations (CNI) and the aircraft manufacturers Boeing and Northrop Grumman. The report summary stated that "Naval Air Station Brunswick is ready to support IOC (Initial Operating Capability) of 2013 and should be seriously considered as a site for one of the east coast Main Operating Bases. NASB requires low cost investment to support MMA IOC 2013."[iii]

Of current MPRA bases, only NAS Brunswick is ready for MMA – *now*. The new (completed 2005), $30M Hangar VI at Brunswick was specifically designed to for the MMA and its supporting Broad-Area Maritime Surveillance (BAM) Unmanned Aerial Vehicle. Further, the initial plan for force structure and laydown of the MMA squadrons per CNO (N-78)[iv] includes MMA basing at Brunswick. Clearly, the recommendation to single-site east coast MPRA at Jacksonville ignores this plan.

(2). NAS Brunswick has been recognized as an ideal location for basing the USAF Predator Unmanned Aerial Vehicles. The Adjutant General of the Maine National Guard, Lt. General John Libby, has recommended NASB as the site for Predator within the region.

(3). The Future Years Defense Plan (FYDP) contains funding for a joint Armed Forces Reserve Center at NAS Brunswick. This center will support units essential to homeland security operations under Northern Command, and serve as a key node in contingencies and civil support. NAS Brunswick thus has the potential to be the Northeast's key site for meeting both homeland defense *and* homeland security requirements. The obvious advantages of this concept to seamless future operations of DOD, DHS, and other assets were ignored by the recommendation for realignment. Maintaining Brunswick's aircraft, especially its MPRA, will leverage this future capability.

The recommendation to remove Brunswick's aircraft would ignore the tremendous future capabilities of the NAS, and degrade joint warfighting, training, and readiness.

2. AVAILABILITY OF LAND, FACILITIES, AIRSPACE

The recommendation to realign failed completely to recognize NAS Brunswick's advantages under this criterion, specifically those pertinent to aviation operations.

- Immediate access to over 63,000 square miles of unencumbered airspace for training and operations. Unlike at NAS Jacksonville, civilian air traffic is negligible. NASB's traffic pattern is unconstrained by any surrounding airspace requirements.
- Diversity of climate for training and operations. Brunswick is a four-seasons location with all the advantages that brings to aircrew and ground personnel training. Winter operations are routine at NASB and the airfield has fewer hours of closure due to weather than any major aviation facility in New England.
- NASB has all-new aviation facilities, including the following constructed or reconstructed within the last five years:
  - All runways, ramps, taxiways
  - New tower (2005)
  - MMA/P-3 Hangar
- NASB has over 1500 acres of land available, and facilities available for use as staging areas for use in homeland defense missions, and as receiving or mobilization locations. The NAS is completely free of encroachment or other issues restricting its operations or growth.
- NASB has a new, *NATO-funded* fuel farm, and a state-of-the-art MPRA command and control facility (Tactical Support Center), also *NATO-funded*.

Any basing scheme which does not fully exploit Brunswick's clear advantages as a ***full-time MPRA base*** under this criterion would be grossly deficient. These advantages were simply not captured in the Navy's analysis of military value, especially relative to other MPRA sites.

Further, the Department of the Navy (DON) Analysis Group approved a configuration analysis model that did not allow "the introduction of aircraft types not currently on board an activity."[v] Amazingly, no data calls or scenarios examined the advantages of other-service or joint aviation siting or operations at NASB.

These process failures resulted in the recommendation to relocate Brunswick's aircraft, and **ignored the outstanding availability and condition of land, facilities, and associated airspace at NASB.**

3. COST OF OPERATIONS AND MANPOWER IMPLICATIONS

(a). COST OF OPERATIONS

Due to over $110M in infrastructure investments at NAS Brunswick over the last ten years, the ***operating costs for the Station are now and will remain extremely low without further MILCON or other investment***. NAS Brunswick's Base Condition Index (the ratio of the cost of maintenance deficiencies to the current replacement value of the facilities) places it among the top Navy installations in terms of the condition of its infrastructure.

(b). MANPOWER IMPLICATIONS

(1). The reduction of military presence in the Northeast (and particularly New England) under the overall DOD recommendations will have significant long-term effects on recruiting for our all-volunteer force. These effects have not been adequately studied. They have not been considered in the recommendations.

(2). Aircrews and other personnel required for the essential deployed/detached/"surge" operations at Brunswick under the recommendation would incur the same perstempo impact as any other out-of-area deployment. *Concepts which require deployments from one CONUS location to another* ***for ongoing operations*** *are almost always inherently undesirable for this and other reasons.* Permanently basing MPRA at an INCONUS operational site like Brunswick avoids this flawed concept.

(3). The recommendation ignores its impact on the Naval Reserve demographic. "Relocation" of VP-92 and VR-62 will mean the loss of their trained personnel, who will not travel to NAS Jacksonville to train or drill. These reservists will need to be replaced by other, newly recruited or reassigned members from the Jacksonville area. The obvious costs and impact on readiness will be significant and are not addressed in the recommendation.

In summary, NAS Brunswick must be maintained as a fully-functional aviation installation in a "hot" status; the fixed costs for its operation and maintenance will be met. *The savings in variable costs from removing its permanently-assigned aircraft and personnel to NAS Jacksonville would be small (or even negative).*

Relocation of NAS Brunswick's permanently-stationed aircraft cannot be justified on a financial basis.

B. ADDITIONAL CRITERIA

4. THE EXTENT AND TIMING OF POTENTIAL COSTS AND SAVINGS

(a.). Elimination of full-time basing of MPRA at NAS Brunswick would require that all mission requirements be met by squadrons or squadron detachments deployed there from other MPRA sites. The *extent* of these certain requirements, recognized by DOD, is yet to be determined or quantified. These force requirements are currently being refined under the Quadrennial Defense Review, by the joint Navy/USCG Maritime Domain Awareness Working Group, as part of the President's National Security Policy Directive/Homeland Security Policy Directive, and will include inputs from the Proliferation Security Initiative and other homeland defense analyses.

The level of MPRA operations necessary to meet these mission requirements for the northeastern Atlantic region will be significant, and ***significantly reduce the savings purported under the recommendation to remove the permanently-based MPRA from NAS Brunswick.*** Specifically reducing the purported savings would be:

- Transit costs for deployment or "surge" aircraft
- Logistic and storage/supply costs for parts, etc., due to lack of Intermediate-level maintenance support on-site.
- Per Diem and other costs associated with deployed personnel

(b). Alternative scenarios which would provide substantial, and potentially far greater, savings were not considered. The Navy's scenario development and analysis process assumed preemptively and without justification that siting like-type aircraft at a single base would provide an optimal result.[vi] Under the model which preceded the insertion of this assumption, NASB would be neither closed nor realigned.

(c). One of the alternative scenarios not considered, but actually more in consonance with the Navy's own force structure/laydown plans, would be maintenance of NASB as a full-time MPRA site with ***introduction of MMA to commence there.*** This scenario would leverage Brunswick's status as MMA-ready immediately, and produce significant savings over the realignment recommendation:

- Elimination of 50% of MILCON for MMA at NAS Jacksonville
- Postponement of the other 50% of MILCON required at Jacksonville
- Enable the early phasing-out of Intermediate-level maintenance at NAS Brunswick by 2015 (since MMA will be contractor-maintained and supplied). This improves upon the savings from

consolidating Intermediate and Depot-level maintenance purported by the recommendation to realign.

- Provides savings (cost avoidance) over the DOD recommendation by eliminating Basic Allowance for Housing/Variable Housing Allowance (BAH/VHA) costs for the over 2,300 active-duty personnel who would be transferred to the Jacksonville area. There is no vacant military housing in the Jacksonville area to accommodate these personnel and their families. NAS Brunswick has substantial (and substantial new) family and bachelor housing which would remain vacant or lost under the recommendation to realign.

(d). The recommendation to relocate VR-62 to NAS Jacksonville will incur both MILCON and costs related to standing-up C-130 maintenance and logistics capabilities there. There are no C-130 units currently at NAS Jacksonville.

6. ECONOMIC IMPACT ON COMMUNITIES

The DOD recommendation to realign units at NAS Brunswick would have enormous, negative impact on the community, the State, and the region. The economic impact analysis by DOD used an incorrect metropolitan area for NAS Brunswick.

a. Using the appropriate metropolitan area and accurate data yields the following economic impact summary:

b. Since the economic impact would be so catastrophic, **the recommended "realignment" would not be realignment, but effectively an *inactivation* of NAS Brunswick.** The economic impact shown above, and the fact that over 85% of the active duty personnel would be reassigned elsewhere make this clear. BRAC is prohibited by statute from placing installations in an inactive status.[vii] This recognizes the fact that inactivation impacts the community, State, and regional economies without recourse to redevelopment or DOD or other agencies' assistance or mitigation.

These process failures and incorrect assumptions caused the Navy and DOD to improperly evaluate or characterize the economic impact of the realignment recommendation on the midcoast area, the State of Maine, and the New England region.

SUMMARY

- **The proposed realignment of NAS Brunswick is a deeply flawed, internally contradictory recommendation. The recommendation *substantially deviats from and violates both the BRAC criteria and the Navy's own force structure/laydown plans*. These violations are the result of failed analytical processes, along with presumptive and faulty underlying assumptions.**

- **If implemented, DOD's recommendation to realign NAS Brunswick would:**

    - **Reduce the readiness of the total force to defend the region and the nation**
    - **Provide marginal or negative savings**
    - **Inflict catastrophic damage on the community, State, and region**
    - **Ignore opportunities for expansion of NAS Brunswick's roles and missions to match its tremendous potential as a Joint Forces facility for Homeland Defense and Homeland Security.**

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[i] Testimony of ADM V. Clark to Base Realignment and Closure Commission, 17 May 2005

[ii] Department of Defense Pre-Decisional Working Paper , Strategy for Homeland Defense and Civil Support, March 2005, p.12

[iii] Navy Report, "Topic: Multi-Mission Maritime Aircraft (MMA) Survey, 21-24 March 2005, NAS Brunswick , ME"

[iv] Briefing to Congressional Staff by N782C1, P-3/MMA Req. Officer, 13 December 2004

[v] DOD Base Closure and Realignment Report to the Commission; Department of the Navy, Analyses and Recommendations (Vol. 4), p. C-5

[vi] DOD Base Realignment and Closure Report to the Commission, Department of the Navy Analyses and Recommendations (Vol. IV), May 2005, p. C-6

[vii] PL 108-375 Section 2833. This statute removed Section 2914(c) from the 1990 legislation that stated: "(c) Recommendations to Retain Bases in Inactive Status. – In making recommendations for the closure or realignment of military installations, the Secretary may recommend that an installation be placed in an inactive status if the Secretary determines that –

(1) the installation may be needed in the future for national security purposes; or
(2) retention of the installation is otherwise in the interest of the United States."

DCN: 11596

RECOMMENDED QUESTIONS/POINTS OF INTEREST DURING BRAC COMMISSIONERS VISIT TO NAS BRUNSWICK, ME

Questions to ask:

- **What is NAS Brunswick's mission in support of NORTHCOM?**
- **What excess capacity does NAS Brunswick have to take other DoD or inter-agency assets? UAV's?**
- **Did you provide data to support moving other assets to NAS Brunswick? Were there scenarios run to bring other assets to NAS Brunswick?**
- **Were it considered to bring Jacksonville P-3s to NAS Brunswick?**
- **How much of the infrastructure in Brunswick will have to be rebuilt in Jacksonville to support moving these 6 squadrons there?**
- **Do you have encroachment problems from the local community? Airspace or training area problems?**
- **What is NAS Brunswick's NATO mission? Are there similar NATO facilities in the United States?**
- **How is NAS Brunswick prepared today to receive the Multi-Mission Maritime Aircraft? Are there other air station ready today to receive MMA?**

Facilities to view:

- **New Hangar 6 – only hangar in the Navy capable of receiving the Multi-Mission Maritime Aircraft (Boeing 737)**
- **NATO facilities – Commander Wing FIVE Headquarters building; Fuel Farm** Used NATO-funded
- **Quality of Life facilities**
  - **New Townhouse-style Enlisted Barracks**
  - **New Base Housing**
  - **New Navy Lodge**
  - **New Visitor Quarters**
  - **Fitness Center**

32-34m Hangar 6
(were [illegible] [illegible])

– No [illegible] w/ [illegible] – Optimum [illegible] for East Coast / [illegible] – [illegible] ½
DATA calls
) – [illegible]
– Future (MMA [illegible] –)

DCN: 11596

DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION
2521 SOUTH CLARK STREET, SUITE 600
ARLINGTON, VA 22202
TELEPHONE: 703-699-2950
FAX: 703-699-2735

June 3, 2005

Commodore Michael Hewitt, United States Navy
Commander, Patrol & Reconnaissance Wing FIVE
Naval Air Station Brunswick
5 Jay Beasley Circle
Brunswick, ME 04011

Dear Commodore Hewitt:

I would like to thank you for your professionalism and hospitality during our recent BRAC Commission visit to NAS Brunswick. The information presented will assist the Commission during deliberation of the official recommendation concerning the realignment of the Naval Air Station.

As you know, our visit was part of a multi-step process to evaluate and validate the Department of Defense recommendations with respect to all actions involving NAS Brunswick. The visit allowed me, my fellow commissioners and members of our staff to associate the volumes of Department of Defense (DoD) data with the installation they represent. It also provided a better understanding of the issues involved from a military value perspective.

Our tours of military installations are an integral part of a dynamic, open process which will enhance our ability to assess the current infrastructure prior to making our official report to the President. We appreciate you being part of that process.

Very respectfully,

Anthony J. Principi
Chairman

DCN: 11596

RECOMMENDED QUESTIONS/POINTS OF INTEREST DURING BRAC COMMISSIONERS VISIT TO NAS BRUNSWICK. MAINE

QUESTIONS TO ASK:

- What were the results of any site surveys for the Multi-Mission Maritime Aircraft? Are any other Air Stations ready today to receive the MMA?
- Did you provide data to support moving other assets to NAS Brunswick?
- Were any scenarios run to bring other assets to NAS Brunswick?
- What is NAS Brunswick's role under NORTHCOM?
- Do you have any encroachment issues?
- How is Brunswick's air space for training and operations?
- What facilities were NATO-funded?
- What is NAS Brunswick's Base Condition Index? How much of the NAS is recent construction?

FACILITIES TO SEE

- HANGAR VI
- MPRA OPS BUILDING
- TACTICAL SUPPORT CENTER
- GSE BUILDING
- NEW TOWER

CAPTAIN MICHAEL W. HEWITT
UNITED STATES NAVY

Captain Michael W. Hewitt was born in Norfolk, Virginia. A 1983 graduate of George Mason University, he received his commission through Aviation Officer's Candidate School in April 1983. He earned his "Wings of Gold" in August 1984.

His first tour was with the VP-10 "Red Lancers" in Brunswick, Maine, where he made deployments to Keflavik, Iceland and to Rota, Spain/Lajes, Azores. While assigned to VP-10 he served as Legal Officer, Readiness Officer and NFO Natops Officer. In January 1989, he reported to the "Pro's Nest" of VP-30, the Fleet Replacement Squadron, for assignment as a P-3 Flight Instructor and Fleet Projects Team member.

In January 1991, Captain Hewitt was assigned as the Flag Secretary for Commander, Carrier Group FOUR/Commander, Carrier Striking Force Atlantic, where he qualified as a Battle Group Tactical Watch Officer. During his tour he participated in two NATO exercises in the North Atlantic, Counter Drug operations in the Caribbean and numerous Battle Group workups.

In October 1992, he was assigned to the staff of the Chief of Naval Operations (N88) as the assistant Maritime Patrol Requirements Officer. His next operational assignment was a return to the VP-10 "Red Lancers" in Brunswick, Maine, where he served as the Command Services Officer and Maintenance Officer. He participated in a multi-site deployment to Keflavik, Iceland and the Caribbean.

In January 1997, Captain Hewitt reported to the Office of Legislative Affairs (OLA) in Washington, D.C., as the Executive Assistant to the Chief of Legislative Affairs. Following this tour, he remained in Washington, D.C. and attended the Industrial College of the Armed Forces (ICAF), receiving a Master of Science Degree in National Resource Management. In May 2000, he reported to the VP-8 "Fighting Tigers" as the Executive Officer and assumed command in May 2001. During his tenure as Commanding Officer, VP-8 completed a successful deployment to Keflavik, Iceland and the Caribbean.

In June 2002, Captain Hewitt reported to the Director, Air Warfare (N78) on the staff of the Chief of Naval Operations as the Maritime Patrol and Multi-mission Maritime Aircraft Requirements Officer.

Captain Hewitt's decorations include the Meritorious Service Medal (3 awards), Navy Commendation Medal (3 awards), Navy Achievement Medal (2 awards) and numerous campaign and unit awards.

Captain Hewitt is married to the former Abby Clare of Myrtle Beach, South Carolina. They will reside in Brunswick with their two daughters, Hailey and Chelsea.

DCN: 11596

DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION
2521 CLARK STREET, SUITE 600
ARLINGTON, VIRGINIA 22202
(703) 699-2950

MEMORANDUM OF MEETING

DATE: 20 June, 2005

TIME: 1000-1100

MEETING WITH: Brunswick CODEL and Contractor Support Personnel

SUBJECT: Congressional and Contractor Inputs about the recommendation to realign NAS Brunswick to NAF Brunswick and relocate aircraft and personnel to NAS Jacksonville

PARTICIPANTS:

Name/Title/Phone Number:
Todd Stein/Congressman Allen Staff/202.225.6116
Sam Horton/Senator Snowe Staff/202.224.5344
Mackenzie Eaglen /Senator Collins Staff/202.224.2523
Glen Woods/ Consultant, The PMA Group/703.415.0344
Ed Anderson/Consultant, Conklin & de Decker Associates/602.481.9564

Commission Staff:

Jim Hanna, Navy Marine Corps Team Leader
***Hal Tickle Brunswick Lead Senior Analyst**

MEETING SUMMARY:

The group provided COBRA data, data call information and an analysis of that information.

Three general concerns/issues were raised with DoD analysis/recommendation:

Costs based solely on P-3 without accounting for the follow-on MMA
Operational costs are not used in COBRA
Unrealistic assumptions on receipt timing of MILCON at Jacksonville to accommodate realignment

Six specific concerns/issues:

Personnel savings overestimated
Facilities shutdown at Brunswick overstated

There are no mission costs in scenario summary
Moving costs are underestimated (personnel accounted for, but not movement of aircraft)
MILCON cost avoidance (base closure scenario) overstated
Unrealistic MILCON time-phasing at Jacksonville

Jim Hanna expressed appreciation for the data-based input and assured the group that all concerns/issues would be reviewed and analyzed.

* Denotes individual responsible for completing the memorandum

DCN: 11596

NAS BRUNSWICK MEETING 20 JUNE 2005		
NAME	POSITION	TELEPHONE
Mackenzie Eaglen	Military LA, SEN Collins	202-224-2523
TODD STEIN	REP. TOM ALLEN (LD)	202-225-6116
GLEN WOODS	CONSULTANT THE PMA GROUP	703 415 0344
Ed Anderson	consultant Conklin & deDecker	602-481-9564
SAM HORTON	MLA SEN. SNOWE	202.224.5344
Jim Hanna	NAVY MARINE CORPS TEAM LEADER	703-699-2950
Hal Tickle	Navy Marine Corps Lead Analyst	703 699-2916

12/6/2004

RP-0326

IAT-0072: Close NAS Brunswick, ME (NAS Jacksonville, FL, Receives)

For the purpose of this Scenario Data Call, the following BRAC Actions are being considered for analysis:

1. Close base operations at NAS Brunswick, ME.

2. Relocate VR 62, VP 8, VP 10, VP 26, VP 92, and VPU 1 to NAS Jacksonville, FL, to include required personnel, equipment, and support.

3. Relocate NMCB 27 to Portsmouth Naval Shipyard, ME, to include required personnel, equipment, and support.

4. Relocate/consolidate FASOTRAGRULANT DET to FASOTRAGRULANT, Naval Station Norfolk, VA, to include required personnel, equipment, and support.

5. Disestablish Naval Air Reserve.

6. Relocate/consolidate AIMD to Base X as determined by the Industrial JCSG, to include required personnel, equipment, and support.

7. Disestablish NAVHLTHCARE New England, function BMC Brunswick DMIS 0299.

8. Disestablish NAVHLTHCARE New England, function BDC Brunswick DMIS 0466.

Assumptions:

Five VS squadrons at NAS Jacksonville disestablish in FY 05, and three helicopter squadrons disestablish in FY 07 and FY 08. Each action must reflect the transfer of support personnel and equipment as appropriate that results from all actions associated with this scenario. All remaining support activities at NAS Brunswick, ME, to be closed.

Department of the Navy
Infrastructure Analysis Team

Close NAS BRUNSWICK (IAT-0072)

Scenario

- Close NAS Brunswick
  - VR 62, VP 8, VP 10, VP 26, VP 92, VPU 1, VR 62 move to NAS Jacksonville
  - NMCB 27 move to Portsmouth NSY, ME
  - Disestablish NAR
  - AIMD move/consolidate to Base X

Drivers/Assumptions

- Single sites LANT FLT VP assets.
- Optimize maintenance, logistics and training efficiencies.
- Squadrons move into spaces as they are vacated by disestablishing VS and HS squadrons from FY 05 to FY 08.

Justification/Impact

- Decrease capacity and operating costs.
- Reduce personnel support requirements.
- Moves squadrons closer to training areas.
- Moves logistics squadron closer to fleet forces.

Potential Conflicts

- NorthCom mission considerations.
- Environmental considerations (noise and air quality) at NAS Jacksonville.
- FASOTRAGRULANT DET operates only Navy SERE school on east coast. Potential increase student load at west coast SERE school.
- AIMD requires JCSG coordination.
- Receiving site of NMCB 27

DCN: 11596

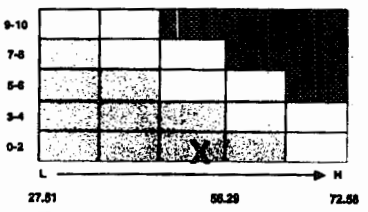
Department of the Navy
Infrastructure Analysis Team

Close NAS Brunswick
(NAS Jacksonville Receives)

Scenario Divergence

- Excess Capacity Reduction
  - Score: 0
- Principles, Objectives and Considerations Alignment
  - Score: 0
- Transformational Options
  - Score: 1
- Function/Scenario Alignment
  - Score: 0
- Expansion Capability/Flexibility
  - Score: 0
- Total Alignment Score: 1

Alignment Matrix



Military Value Score: 50.39

*Mean Military Value Score: 56.29

Military Value Ranking: 28 of 35

*Based upon 35 Bases

6-Dec-04 Draft Deliberative Document For Discussion Purposes Only - Do Not Release Under FOIA

Scenario Divergence

Excess Capacity Reduction

0: Significant capacity reduction

1: Some capacity reduction

2: Little or no capacity reduction

Principles, Objectives and Considerations Alignment

0: Operationally aligned (Closer to Fleet Concentration Area/Maintenance/Training)

1: Aligned but independent of operational considerations

2: Minimal alignment

3: No apparent alignment

Transformational Options

0: Resulting from a Transformational Option

1: Not resulting from a Transformational Option

Function/Scenario Alignment

0: Aligned with other functions/scenarios

1: Not aligned with or independent of other functions/scenarios

2: Conflicts with other functions/scenarios

Expansion Capability/Flexibility

0: Significant ability to increase footprint (Jacksonville has excess as older squadrons disestablish)

1: Limited ability to increase footprint

2: No ability to increase footprint

Aviation
Close Brunswick

- **Single sites P-3 assets on East Coast**
  - Costs include bringing facilities to standards at NAS Jacksonville
- **SERE School relocated to MCAS Cherry Pt**
- **Detachment sites available in Northeast to perform current "requirements" for Homeland Defense**

Scenario	Billets Elim	Billets Moved	One-Time Costs	Steady-State Savings	ROI Years	20 Year NPV
DON-0138 Brunswick to Jacksonville, Cherry Point	1,028	2,251	180.8	-95.7	1	-860.8

All Dollars shown in Millions

Criteria 6 – 8 Considerations Close Brunswick

- **Results of Criteria 6, 7, and 8 Analysis for DON-0138:**
  - Employment decreases by greater than 1% in Southern Maine. No significant economic impact on gaining economic region
  - NAS Brunswick currently provides structural fire fighting support by Mutual Aid agreement to the surrounding communities (Bath, West Bath, Topsham, and Brunswick).
  - No significant community impact on gaining community.
  - No significant Criterion 8 impacts

Candidate Recommendation Risk Assessment DON-0138

Executability Risk

Investment Recoupment

0: Immediately self financing 0-1 years
1: Investment recoverable in 2-4 years
2: Investment is not recoverable in less than 4 years

Investment/Ratio of 20 Year NPV to Initial Cost

0: Initial investment < $100M and ratio is > 5 to 1
1: Initial investment < $200M and ratio is > 3 to 1
2: Initial investment > $200M or ratio is < 3 to 1

Economic Impact

0: Low direct/indirect job losses in community (<.1%)
1: Some direct/indirect job losses in community (>.1% and < 1%)
2: Greater potential economic effect on community due to single action or cumulative effort of all actions (>1%)

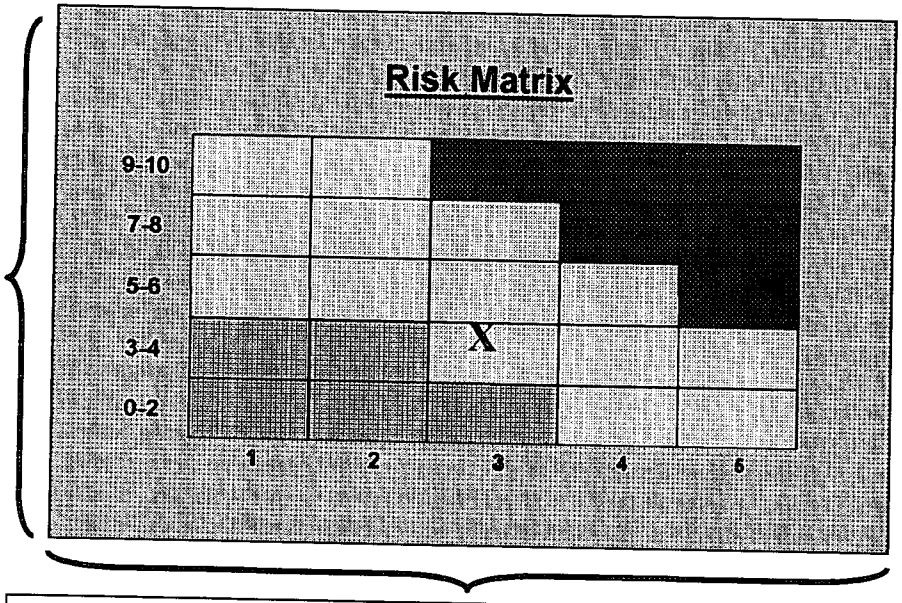
Community Infrastructure Impact

0: Receiving site community(ies) readily able to absorb forces, missions, personnel
1: Some potential impact on receiving site community(ies) but absorption likely over time
2: Impact on receiving community likely; uncertainty regarding absorption of forces, missions, personnel

Environmental Impact

0: Minimal impact at receiving site or no risk of executability
1: Mitigation at receiving site required but possible
2: Complex mitigation at receiving site probable; uncertainty about executability

Issues:
Strategic flexibility and presence in the Northeast.
Receiving sites for two Reserve units.



Warfighting/Readiness Risk

(0-1) Low *Minor impact on mission capability*

(2-3) **Medium** ***Reduced flexibility, but still mission capable***

(4-5) High *Significant impact, approaching point impact which affects capability to support/deploy forces*

COCOM Concerns:

Close Brunswick Summary

- **Single sites P-3 assets on East Coast**
  - Significant investment but reduces excess capacity by 20 hangar modules
  - Supports maintenance and training efficiencies
- **Removal of DON Aviation asset/presence in New England**
  - Strategic concern
  - Future basing flexibility

DAG Recommendation:
Prepare Candidate Recommendation package for DON-0138

An Assessment of the Pentagon's Business Case for Realignment of Naval Air Station Brunswick

Ed Anderson, Aviation Analyst

Conklin & de Decker Associates

Orleans, Massachusetts

June 16, 2005

Introduction

On May 13, 2005, the Department of Defense transmitted a report of its recommendations for base closures and realignments to Congress and to the 2005 BRAC Commission. Among the actions recommended is the following:

> *"Realign Naval Air Station Brunswick, ME to a Naval Air Facility and relocate its aircraft along with dedicated personnel, equipment and support to Naval Air Station Jacksonville, FL. Consolidate Aviation Intermediate Maintenance with Fleet Readiness Center Southeast Jacksonville, FL."*[1]

According to the report, the realignment is justified because it "will reduce operating costs while single siting the East Coast Maritime Patrol community at Naval Air Station Jacksonville." The recommendation postulates that a one-time investment of $147.6 million will result in annual recurring savings of $34.87 million with an expected 4-year payback and a 20-year net present value savings of $238.77 million.

This study examines the assumptions, data and analytical methods used by the Department of the Navy that led to the above recommendations and demonstrates that errors and omissions were committed in the Navy's analysis. The most significant error was to base the 20-year financial analysis solely on the P-3C aircraft, while ignoring the fact that the Navy plans to begin phasing out the P-3 in FY12, replacing them with a smaller fleet of contractor-maintained P-8 Multi-mission Maritime Aircraft (MMA). [2] The MMA is a key element in the Navy's 20-year Force Structure Plan.[3]

When these flaws are corrected, this analysis demonstrates that the sole justification for this proposed realignment action—to reduce operating costs—is not met.

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[1] DOD Base Closure and Realignment Report to the Commission; Department of the Navy, Analysis and Recommendations (Vol. IV) *Recommendation for Realignment Naval Air Station, Brunswick Maine*, Page C-11

[2] "The present plan is to stand down a P-3 squadron in FY12 for training and transition to the first MMA squadron." *NAS Jacksonville MMA Site Evaluation (Preliminary)*, Page 24

[3] Note: Public Law 101-510 requires that the Department of Defense base its BRAC recommendations on its 20-Year Force Structure Plan.

Importance of Costs/Savings as Evaluation Criteria

The Base Closure Act stipulates that base closure/realignment recommendations will be based primarily on four Military Value criteria. One of the four criteria is, "The cost of operations and manpower implications."

In fact, the Navy's entire justification for relocating NAS Brunswick squadrons to NAS Jacksonville is to ***reduce operating costs*** by merging depot and intermediate maintenance activities thus "reducing the number of maintenance levels and streamlining the way maintenance is accomplished with associated significant cost reductions."[4]

There is no claim that the realignment will enhance homeland security, improve readiness or increase mission capability in any way. Therefore, it is of critical importance that the 20-year financial analysis be consistent with the Navy's 20-Year Force Structure Plan.

The COBRA Model

All BRAC recommendations must be supported by cost analysis using an economic analysis program known as Cost of Base Realignment Actions, or COBRA. The current COBRA model, version 6.10, is the latest derivative of a computer program developed by the US Air Force in 1988 and has been adapted for use in each BRAC round since.

One of the criticisms of COBRA is that it is not really a strategic model, yet it is being used to support strategic decisions. There are no provisions in the model for assessing financial risk factors. There is no "best case, worst case" scenario analysis. The model takes six years of data and projects 20 years of results without any consideration of external economic, political, or national security issues.

COBRA was designed as a universal tool for comparing the net costs/savings of various base realignment scenarios. However, like most universal tools, there are shortcomings when it comes to handling non-standard situations. While the model is useful for estimating the costs of relocating/eliminating personnel and equipment—and of building/demolishing facilities—it not capable of dealing with the complexities of Navy operations, mission productivity and evolving mission requirements.

One serious shortcoming is the fact that the COBRA model does not have provisions for entering changes that are planned/expected after year six. "COBRA calculates the costs and savings of realignment actions over a period of 20 years. It models all activities (moves, construction, procurements, sales, closures) as taking place during the first 6 years, and thereafter all costs and savings are treated as steady-state."[5]

Failure to recognize this limitation and deal with it correctly can lead to results that are far off the mark.

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[4] DOD Base Closure and Realignment Report to the Commission; Department of the Navy, Analysis and Recommendations (Vol. IV) *Recommendation for Realignment Naval Air Station, Brunswick Maine*, Page C-11

[5] *COBRA Users Manual,* Page 4

DOD Data Releases

The initial round of data released by the Pentagon on May 23 included a 35-page printout generated by the COBRA model—a report of the NAS Brunswick realignment scenario. (See Attachment 1). The following table is from page one of the COBRA Summary Report for the proposed NAS Brunswick Realignment Scenario DON-0138B:

Starting Year:	2006
Final Year:	2011
Payback Year:	**2015 (4 Years)**
NPV in 2025 ($K):	**-238,771**
1-Time Cost ($K):	**147,156**

Net Costs in 2005 Constant Dollars ($K)

	2006	2007	2008	2009	2010	2011	Total	Beyond
MilCon	3,154	0	**45,016**	**45,459**	19,015	0	112,645	**0**
Person	-120	-647	-1,202	-2,589	-5,263	-21,889	-31,709	**-38,711**
Overhd	3,987	2,975	2,877	3,304	3,310	2,382	18,834	**1,321**
Moving	0	0	300	2,189	2,310	1,655	6,454	**0**
Missio	0	0	0	0	0	0	0	**0**
Other	0	0	125	1,037	2,110	3,118	6,390	**2,518**
TOTAL	7,022	2,327	47,116	49,401	21,482	-14,734	112,615	**-34,872**

	2006	2007	2008	2009	2010	2011	Total
POSITIONS ELIMINATED							
Off	2	2	0	1	1	32	**38**
Enl	0	6	3	7	20	272	**308**
Civ	0	0	0	5	15	37	**57**
TOT	2	8	3	13	36	341	**403**
POSITIONS REALIGNED							
Off	0	0	0	107	134	36	277
Enl	0	0	0	705	686	303	1,694
Stu	0	0	0	0	0	0	0
Civ	0	0	0	0	0	4	4
TOT	0	0	0	812	820	343	**1,975**

Additional data releases included the COBRA Users Manual, the Algorithm Manual and other supporting documents. Then, on June 8 DOD released additional data in the form of dozens of Redacted Scenario Data Calls. These data calls provided most of the information required to understand the proposed scenarios. The recommended NAS Brunswick Realignment is scenario number DON-0138B and is defined by six Scenario Data Call files.[6]

[6] Six scenario data files are: COMFLTFORCOM_NORFOLK_VA.pdf, COMPATRECONWING_FIVE_BRUNSWICK_ME.pdf , NAS_BRUNSWICK_ME.pdf, NAS_JACKSONVILLE_FL.pdf,, NAVAIRES_BRUNSWICK_ME.pdf, and NAVRESCEN_BANGOR_ME.pdf

Deconstructing the Navy's Cost Analysis

In deconstructing the COBRA scenario report and data calls, our analysts identified errors that raise serious concerns about the validity of the DOD case for realigning NAS Brunswick. The errors were primarily due to the following factors:

- **Basing the cost analysis solely on the P-3** without accounting for planned reduction in support requirements due to the MMA program. It is clear from their own documentation that Navy analysts were aware of the MMA's reduced support requirements. They refer to, "...the smaller operational "footprint" of the Multi-mission Maritime Aircraft (MMA) as compared to the P-3." Yet, their cost analysis is based entirely on the high manpower requirements of the P-3.
- **Failure to account for aircraft operating costs** such as the costs of relocating squadron aircraft to NAS Jacksonville and the additional mission costs of flying up to 1100 miles (each way) farther to reach operating areas, multi-national exercises and standard deployment sites.
- **Unrealistic assumptions concerning the timing of Military Construction** at NAS Jacksonville and ability to accommodate Brunswick squadrons according to the proposed schedule.

Six remarkable errors are discussed in the following paragraphs, along with an analysis of the financial impact of each error and the recommended corrective actions:

1) **Overstated Personnel Savings.** The Navy's entire business case for single-siting east coast P-3s rests on the theoretical elimination of 403 Personnel beginning in 2011 and continuing through the "beyond" years 2012-2025 (refer to table on page 5). Yet, many of the positions identified for elimination are already slated for elimination as the P-3 fleet progressively stands down beginning in FY12. Even if the proposed ambitious relocation schedule were met, it would be improper to credit the BRAC realignment with eliminating these positions for 15 years.

   Analysis

   The replacement P-8 will be contractor-maintained by Boeing under a Contractor Logistics Support (CLS) program. A large part of the justification for replacing the P-3 with the P-8 was the savings that would result from the elimination of AIMD and other military maintenance positions.

   The CPRW-5 Scenario Data Call[7] and the NAS Brunswick Data Calls[8] provide a breakdown of positions proposed for elimination. The following is a list of eliminated positions that have been improperly credited to BRAC realignment.

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[7] *CPRW-5 Scenario Data Call DON-0138B, pages 4-5*

[8] *NAS Brunswick Data Calls DON-0138, pages 7-9, and DON-0138B, pages 4-6*

Aircraft Maintenance/Supply Positions Eliminated

	Officers	Enlisted	Civilian	TOTAL	Reference
AIMD	8	91	-	99	DON-138B CPRW-5 Data Call
ASD	1	19	2	22	DON-138B CPRW-5 Data Call
Aviation Supply Support	-	11	25	36	DON-138 NASB Data Call
TOTAL	9	121	27	157	

It is wrong to credit BRAC with eliminating maintenance/support positions that are programmed for elimination under the MMA program. ***This error alone results in an understatement of Personnel Costs by $13.8 million annually.***

(Note: Even the additional 250+ Aviation Intermediate Maintenance and Aviation Supply (AIMD/ASD) positions slated to relocate to Jacksonville in FY09-FY11 will be phased-out starting in FY12 when the first P-3 squadron stands down.)

Recommended Corrective Action.

This COBRA scenario should be run again after reducing the proposed 403 eliminations by the above 157 positions. This can be accomplished on *Input Screen Six (Brunswick)* by correcting the user entries under *Scenario Changes by Year (+ Additions/-Eliminations).*

2) **Overstated Facilities Shutdown.** Scenario DON-0138B (Input Screen Five) assumes that 874,000 sq ft of facility space would be closed due to the realignment.

Analysis

According to the relevant data call file, 126,000 sq ft is attributable to AIMD shutdown.[9] This should not be recognized as a BRAC benefit because AIMD is already slated to be shutdown due to the MMA CLS program. Only the remaining 748,000 sq ft of facilities shutdown should be counted as BRAC savings. ***This error results in an understatement of overhead costs by $415,000 annually.***

Note: A footnote for *Input Screen Five* states, "Brunswick has included costs that appear to be for a closure and not for a realignment."

Recommended Corrective Action

Correcting for this error is accomplished on *Input Screen Five (Brunswick)* by changing the number of *Facilities Shutdown (KSF)* to 748,000 sq ft.

3) **Ignored Mission Costs:** There are no Mission costs shown in the scenario summary, even though NAS Jacksonville is much farther than Brunswick from North Atlantic operating areas, multi-national exercises and most deployment sites. The COBRA Users Manual states:

[9] *NAS Brunswick Scenario Data Call DON-0138B, DoD54330, page 16*

"... the analyst/user should primarily consider whether the costs/savings are mission or support related. The most important thing is to capture all known costs/savings incurred with the realignment action."[10]

Analysis

An analysis of P-3 deployment sites, operational areas and exercise areas shows that Jacksonville is 800 to 1100 miles farther from most of these locations than is NAS Brunswick. This increases flying time by 4 to 7 hours per round trip, at a cost of $7,876 per P-3 flight hour.[11] For example, a single round trip to Sigonella or the Mid East will cost an additional $55,000 in the P-3 (estimate 1/3 less for the P-8.) As shown in the accompanying analysis, [12] this error results in an ***understatement of recurring Mission Costs by $2.5 million annually.***

Recommended Corrective Action.

This COBRA scenario should be run again after entering the appropriate value on *Input Screen Five (Brunswick)* under *Activity Mission Costs ($K)* year 2011. According to our analysis, a value of $2.5 Million is justified.

4) **Understated Moving Costs.** The COBRA analysis is very detailed in calculating the costs of moving people, vehicles, household goods, etc. to Florida. However, it makes no allowance for the cost of relocating the aircraft. Nor, does it make any allowance for the numerous liaison flights that will take place between Brunswick and Jacksonville before, during and after the move. These are all one-time moving costs.

Analysis

It costs over $27,500 to fly each P-3 the 1100+ miles from Brunswick to Jacksonville. Even if the squadrons move during deployment, they will have to fly an additional 2.5-3.5 hours to reach NAS Jacksonville. This error results in an ***understatement of Moving Costs by $2.6 million.*** (See the analysis in attachment 2)

Recommended Corrective Action

It is recommended that the COBRA scenario be run again after allowing for the cost of flying squadron aircraft between Brunswick and Jacksonville. Correcting for this error can be accomplished on *Input Screen Five (Brunswick)* by increasing the values for *One-Time Moving Costs ($K)*. Our analysis indicates that corrective values should be 1,285 ($K) in year 2010 and by 1,285 ($K) in year 2011.

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[10] *COBRA Users Manual, page 30*

[11] From *FY 2004 Navy VAMOSC Data* (available on-line to registered users.)

[12] See Attachment 2

5) **Overstated MILCON Cost Avoidance.** Under the original base closure scenario, Navy analysts claimed $6.7 in MILCON Cost Avoidance due to:

   - Cancellation of the demolition of Hangar 1. "Hangar 1 is scheduled to be demolished in FY2006 as part of P-121."
   - Cancellation of P-175, Weapons Magazine Replacement. "This project is currently under design and could be cancelled as a result of this scenario with the listed cost avoidance."[13]

   Analysis

   These credits, while correct for a base closure, were incorrectly carried forward to scenario DON-0138B. If NAS Brunswick were converted to an active Naval Air Facility, it would still be necessary to demolish Hangar 1 (it is literally falling apart) and it would still be necessary to complete the Weapons Magazine Replacement in order to support future detachments of operational aircraft. This error results in an ***understatement of Military Construction Costs by $6.7 million***.

   Recommended Corrective Action

   Correcting for this error is accomplished on *Input Screen Five (Brunswick)* by deleting the 6,700 *Mission Milcon Avoidance ($K)* under year 2006.

6) **Unrealistic MILCON Time-Phasing**. According to a note in the CPRW-5 Scenario Data Call DON-0138B, the first Brunswick Squadron "relocates in FY09 upon completion of hangar MILCON."[14]

   Analysis

   Scenario DON-138B shows Military Construction beginning in 2008. Yet the space where hangars and ramps will be built will not be available until 2009 or later because active S-3 squadrons currently occupy them. [15]

   The relocation schedule used in this realignment scenario is unrealistic. In running the COBRA model, the analyst used default settings for MILCON time-phasing. This means that each year's MILCON is proportional to the following year's personnel transfer; so, nearly half of the construction would occur in 2008. Most of the rest would occur in 2009.

   The scenario also wrongly indicates that NAS Jacksonville would be able to accommodate 50% of Brunswick's squadrons when MILCON is half complete. It doesn't work that way. You can't put aircraft, or people, into a half-finished hangar. No squadron relocation could take place until all MILCON is complete.

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[13] *NAS Brunswick Scenario Data Call DON-0138B, DoD54329, pages 15-16*

[14] *CPRW-5 Scenario Data Call DON-0138B, reference DoD54310, page 6*

[15] *NAS Jacksonville Scenario Data Call DON-0138B, reference DoD54333, page 7*

The argument that the schedule is unrealistic is supported by language in NAS Jacksonville's Data Call DON-0138B[16] as follows:

> "NAS Jacksonville has no available hangar space suitable to house the types of aircraft that are relocating. Per latest NAVFAC planning criteria, each relocating squadron is entitled to one Type II hangar module. Quantity is based on a total of five modules."
>
> "NAS Jacksonville currently has an existing deficit of aircraft parking apron. Based on the type and quantity of aircraft proposed for relocation, and based on current NAVFAC planning criteria, a total of 197,085 SY of new parking apron and taxiway is required. However, there is insufficient area available to construct this amount of new parking apron. In order to provide the required amount of apron space, it will be necessary to demolish existing hangars 113, 114, 115, and 116."
>
> "The S-3 squadrons are being decommissioned over the next five years, thus freeing up these hangars for demolition. Due to the size of the hangars, they are not suitable to accommodate any of the squadrons and aircraft proposed for relocation."
>
> "Due to the age and potential historical nature of these hangars, Level II historical documentation will be required."
>
> "Child Street, a major traffic artery on NAS Jacksonville, must be relocated. Unless Child Street is relocated, there is insufficient area available to construct the required hangar and parking apron."

Therefore, it is extremely unlikely that the proposed new hangars will be ready to occupy before FY11. Thus, the entire realignment action would be pushed back several years into the timeframe when P-3 squadrons are transitioning to the new P-8 MMA.

It is impractical to estimate the value of this cost error without running an entirely different scenario based on new (corrected) scenario data calls.

Recommended Corrective Action.

Given the above facts, DON should explain how it proposes to relocate Brunswick squadrons to Jacksonville according to the proposed schedule, given the requirement to:

1) Wait for S-3 squadrons to be decommissioned over the next five years
2) Re-route Child Street, a major traffic artery
3) Demolish four historic hangars
4) Build five new Type II hangar modules with adequate parking apron on the site of the old hangars

---

[16] *NAS Jacksonville Scenario Data Call DON-0138B, reference DoD54333, pages 4-11*

Otherwise, scenario DON-0138B should be replaced with one based on a realistic schedule for MILCON at NAS Jacksonville.

Correcting Flaws in the DON-0138B Scenario Analysis

We used the COBRA model to measure the cost impact of the above listed errors and to test corrective actions. We first ran the model based on the original DON-0138B inputs in order to validate the accuracy and consistency of our data. This run successfully produced the same results as those released in scenario DON-0138B.

When the recommended Scenario DON-0138B is corrected for the above quantitative errors, the results are dramatically different than those postulated in the baseline analysis. The promised **4-year payback becomes a 9-year payback**. The promised **20-year NPV savings of $238.8 million are more like $56.5 million,** for an average of about $2.8 million (NPV) annually. The **Return On Investment is only 7.1%**. (See table below.)

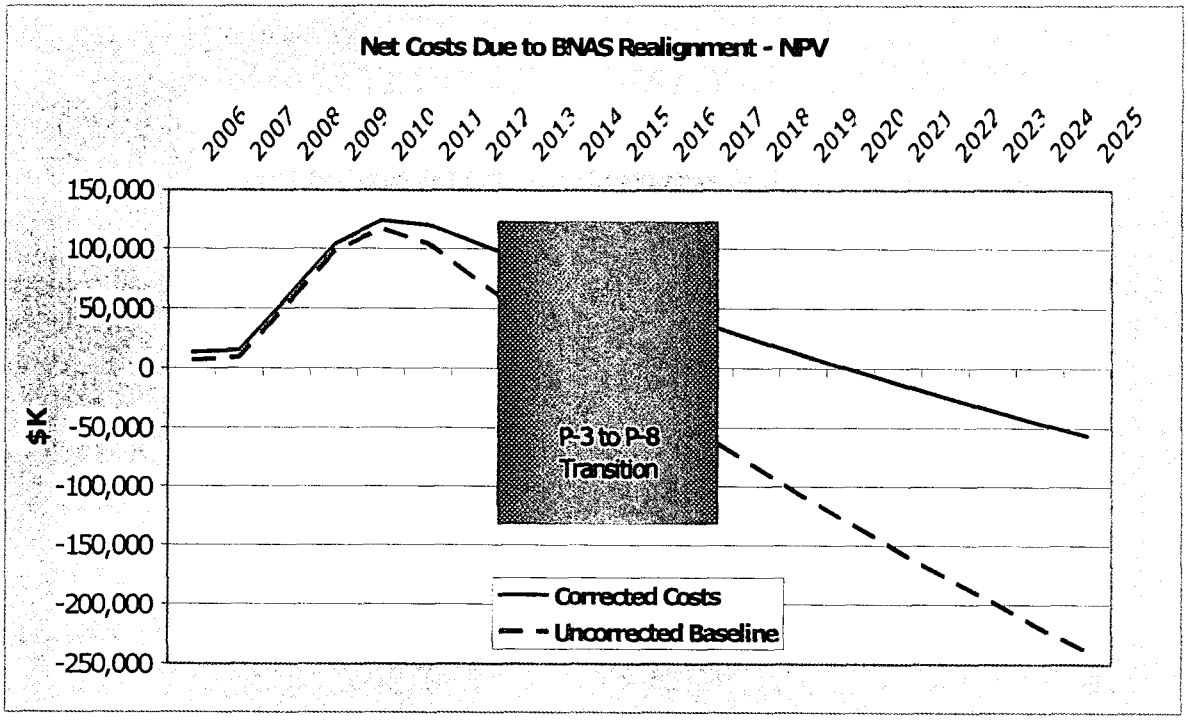
It is important to note that this analysis is based on the questionable assumption that the proposed realignment action can meet the proposed schedule. Even a one-year schedule slip would further diminish the financial case for this realignment action.

Starting Year:	2006
Final Year:	2011
Payback Year:	**2020 (9 Years)**
NPV in 2025 ($K):	**56,460**
1-Time Cost ($K):	**147,305**

Net Costs in 2005 Constant Dollars ($K)

	2006	2007	2008	2009	2010	2011	Total	Beyond
MilCon	9,854	0	45,016	45,459	19,015	0	119,344	**0**
Person	-120	-647	-1,202	-2,589	-5,263	-15,769	-25,590	**-24,864**
Overhd	3,724	2,778	2,730	3,266	3,386	2,821	18,705	**1,856**
Moving	0	0	300	2,189	3,594	2,727	8,810	**0**
Missio	0	0	0	0	0	2,531	2,531	**2,531**
Other	0	0	125	1,037	2,110	3,118	6,390	**2,518**
TOTAL	13,458	2,131	46,969	49,362	22,842	-4,572	130,190	**-17,958**

	2006	2007	2008	2009	2010	2011	Total
POSITIONS ELIMINATED							
Off	2	2	0	1	1	23	**29**
Enl	0	6	3	7	20	151	**187**
Civ	0	0	0	5	15	10	**30**
TOT	2	8	3	13	36	184	**246**
POSITIONS REALIGNED							
Off	0	0	0	107	134	36	277
Enl	0	0	0	705	686	303	1,694
Stu	0	0	0	0	0	0	0
Civ	0	0	0	0	0	4	4
TOT	0	0	0	812	820	343	1,975



Conclusion

The DOD's recommendation to realign NAS Brunswick by relocating its aircraft and support personnel to NAS Jacksonville does not consider the MPRA community transition from the P-3 aircraft to the MMA during the payback period. This factor alone has significant impact on the Navy's projected cost savings, and as our analysis has shown, changes the payback period and net present value savings in this scenario.

A review of the Department of the Navy's Analysis Group (DAG) meeting minutes reveals that as early as June 2004 Navy BRAC analysis teams were aware that the P-3 community would be transitioning to the Multi-mission Maritime Aircraft (MMA) as early as 2012. Further, the DAG was briefed in August of 2004 that the MMA aircraft would not fit into the current Type II Hangar Modules. Although these facts were apparent to the Navy evaluation teams, all scenarios concerning the closure or realignment of NAS Brunswick failed to consider the impact the introduction of the MMA would have on cost savings. Additionally, the Navy BRAC process never considered the fact that NAS Brunswick is currently the only Navy active duty airfield with a hangar module capable of hosting the MMA aircraft (a Boeing 737 derivative). The result was an inflated NPV savings figure and shorter than achievable payback period.

The only reason given for the realignment action was to save money through the elimination of personnel. Yet, the cost analysis is based on assumptions that over-estimate the number of maintenance personnel that will actually be eliminated under a realignment scenario. At least 157 of the eliminated positions are already slated for elimination by the

MMA program and should not be counted as cost savings over the 20-year payback period.

Another issue, that must be sorted out to gauge whether projected cost savings are realistic, concerns the schedule for Military Construction at NAS Jacksonville and the timing of NAS Brunswick squadron relocation. NAS Jacksonville's data calls reveal several challenging MILCON issues: demolish 4 historic hangars after filing historical Level II documentation; build 5 Type II hangar modules; build parking apron space, currently not available, but required before receiving any additional aircraft; and, re-route Child street. What was not mentioned in the data call will be a need for additional P-3 trainers for use by the four additional P-3 squadrons that NAS Jacksonville would receive.

Finally, the Navy's cost analysis ignored the cost issues associated with the higher Mission Costs due to the additional distances aircraft must fly on operational flights and deployments.

When the Navy's cost analysis is corrected to reflect the above additional considerations, the financial justification for realignment fails. The payback period becomes a more realistic 9 years and the purported 20-year NPV savings of $238.8 million is closer to $56.5 million.

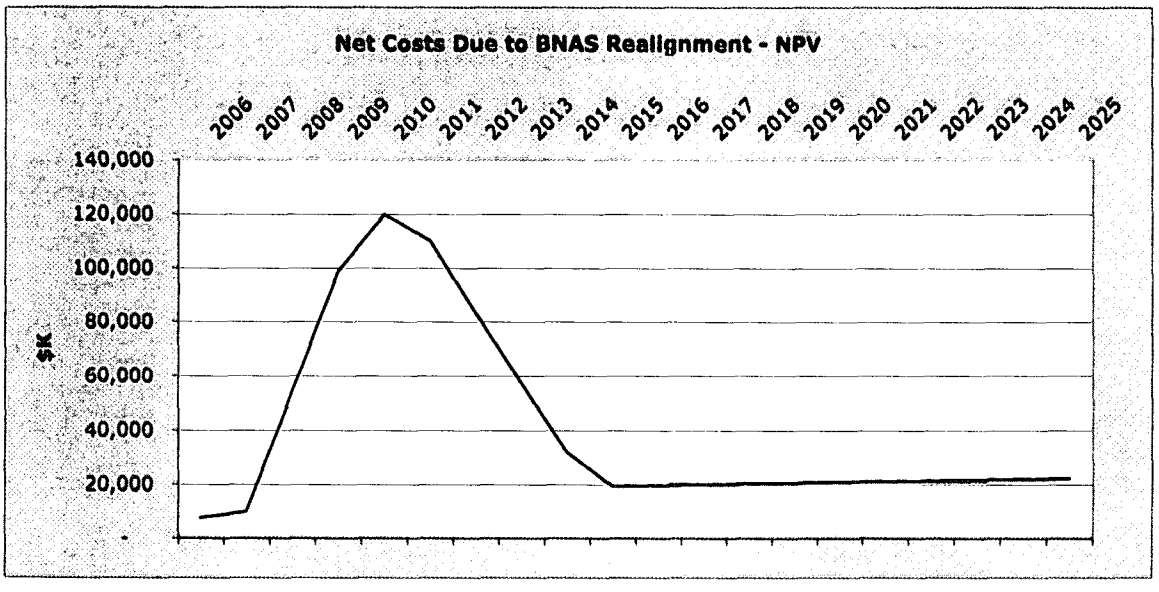
Net Cost Summary - BNAS Realignment

Inputs:

Implementation Period	2006-2011
Recovery Period	2012-2025
Transition year from P-3 to P-8 Aircraft	2015
Apply Corrections to Personnel Costs? (Y/N)	y
Apply Corrections to Mission Costs? (Y/N)	y
Apply Corrections to Moving Costs? (Y/N)	y

Results:

Net Implementation Costs ($ millions)	118.1
Ann recurring savings ($ millions)	(0.4)
Payback Years	15
NPV over 20 years ($ millions)	21.4
ROI	-2.0%
Average Net Savings per Year, NPV ($ millions)	1.1



Net Cost Analysis ($K)

Year	Baseline 2005 $K	Corrections to Baseline				Adjustments for NPV		
		Personnel	Mission	Moving	Other	TOTAL	Adjusted	NPV
2006	7,022	-				7,022	6,925	6,925
2007	2,327	-				2,327	2,233	9,158
2008	47,116	-				47,116	43,973	53,132
2009	49,401	-				49,401	44,850	97,981
2010	21,482	-		2,569		24,051	21,240	119,222
2011	(14,734)	-	2,885			(11,850)	(10,180)	109,042
2012	(34,872)	-	2,885			(31,987)	(26,731)	82,311
2013	(34,872)	-	2,885			(31,987)	(26,003)	56,307
2014	(34,872)	-	2,885			(31,987)	(25,295)	31,012
2015	(34,872)	16,692	1,924			(16,256)	(12,505)	18,508
2016	(34,872)	33,384	1,924			437	327	18,835
2017	(34,872)	33,384	1,924			437	318	19,152
2018	(34,872)	33,384	1,924			437	309	19,462
2019	(34,872)	33,384	1,924			437	301	19,762
2020	(34,872)	33,384	1,924			437	293	20,055
2021	(34,872)	33,384	1,924			437	285	20,340
2022	(34,872)	33,384	1,924			437	277	20,616
2023	(34,872)	33,384	1,924			437	269	20,886
2024	(34,872)	33,384	1,924			437	262	21,148
2025	(34,872)	33,384	1,924			437	255	21,403

June 1, 2005 *Discount Rate* *0.027*

DCN: 11596

Personnel Cost Corrections

Cost Factors (From COBRA Report)

	Off	Enl	Civ.
Salary	124,972	82,399	59,959
Housing	15,696	13,308	
Civ cost factor			1.109
TOTAL	140,668	95,707	66,495

Positions Eliminated		Adjustments for AIMD Phaseout				Net Cost Correction ($K)		
	Baseline	Off	Enl	Civ.	Corrected	Off	Enl	Civ.
2006	2	-	-	-	2	-	-	-
2007	10	-	-	-	10	-	-	-
2008	13	-	-	-	13	-	-	-
2009	26	-	-	-	26	-	-	-
2010	62	-	-	-	62	-	-	-
2011	403	-	-	-	403	-	-	-
2012	403	-	-	-	403	-	-	-
2013	403	-	-	-	403	-	-	-
2014	403	-	-	-	403	-	-	-
2015	403	(3)	(170)	-	230	422	16,270	-
2016	403	(6)	(340)	-	57	844	32,540	-
2017	403	(6)	(340)	-	57	844	32,540	-
2018	403	(6)	(340)	-	57	844	32,540	-
2019	403	(6)	(340)	-	57	844	32,540	-
2020	403	(6)	(340)	-	57	844	32,540	-
2021	403	(6)	(340)	-	57	844	32,540	-
2022	403	(6)	(340)	-	57	844	32,540	-
2023	403	(6)	(340)	-	57	844	32,540	-
2024	403	(6)	(340)	-	57	844	32,540	-
2025	403	(6)	(340)	-	57	844	32,540	-

Note: The purpose of this adjustment is to correct for the overstatement of AIMD positions eliminated. These positions were already programmed for elimination when the P-3s are replaced.

DCN: 11596

Mission/Moving Cost Corrections

	P-3C	
Aircraft		
Average Block Ground Speed (kts)	300	
Taxi, etc. (hrs)	0.2	
Variable O&S Costs ($/FH)	$ 7,876	Source: Navy VAMOSC FY2004
P-8 Cost Factor	67%	(% of P-3 O&S Costs per NM)

Moving Cost Corrections (One-Time Events)

	Events	Flights/Event	Flights/yr	NM	Ann. Hours	Cost ($K)
Reposition Aircraft to Jax (one-way)	45	1	45	992	158	$ 1,243
NHZ/NIP Shuttle Flights (round trips) during implementation period	24	2	48	992	168	$ 1,326
TOTAL					326	$ 2,569

Mission Cost Corrections (Recurring Events)

	Events/Yr	Flights/Event	Flights/yr	NM	Ann. Hours	Cost ($K)
NAF Brunswick Aircraft Dets	12	2	24	992	84	$ 663
W103...W107 Exercises, etc.	30	1	30	700	76	$ 599
Squadron Deployments	2	18	36	774	100	$ 788
Other international flights	12	2	24	900	77	$ 605
Total Additional Aircraft Operating Costs						$ 2,655
Additional Costs of NAF Brunswick Dets:	$K					
Per Event	15					$ 180
Per Year	50					$ 50
						$ 230
TOTAL Additional Mission Costs/Year					337	$ 2,885

Mission Mileage Deltas (Great Circle Distance NM)

	NIP	NHZ	Delta NM
BNAS	992	-	992
W103...W107 Areas, etc.	700	350	350
Sigonella	4,626	3,720	906
Qatar	6,458	5,489	969
Japan	6,242	5,794	448

DCN: 11596

Congress of the United States

Washington, DC 20515
February 15, 2005

The Honorable John E. Baldacci
Governor
1 State House Station
Augusta, Maine 04333

Dear Governor Baldacci:

We write to offer our strong endorsement for the Maine National Guard's plan to establish a Joint Armed Forces Reserve Center at the Brunswick Naval Air Station.

Co-locating the Maine Army Guard, the Maine Air Guard and the United States Marine Corps Reserve in a single facility makes economic sense. The efficiencies gained through joint construction and sustainment will save taxpayer funds. The project will also promote cross-service training and collaboration, promoting the Defense Department's effort to expand joint roles and missions.

We are very pleased that the State has chosen to locate the Center at the Brunswick Naval Air Station (NASB). Having invested in significant modernization in recent years, NASB is essentially a new base that has much to offer reserve units from Maine and other states. NASB is the last fully capable active duty operational military airfield in the Northeast. Its strategic location alongside the commercially vital Atlantic sea lanes makes its maritime patrol and interdiction capabilities indispensable to homeland defense. Given the ever-increasing integration of active and reserve components, NASB is an excellent location for the Center.

We understand that planning and coordination for the Joint Armed Forces Reserve Center are already underway at the State level, and that NASB is a committed partner in this project. The Navy supports the Center and the Department of Defense, as part of its joint facilities initiative, has already allocated future funding for the Center. The Maine Congressional Delegation stands ready to seek federal funding for the Center at the earliest available opportunity.

Again, we applaud your leadership and the leadership of Maine Adjutant General Libby in this project. We look forward to working together to make the Joint Armed Forces Reserve Center at the Brunswick Naval Air Station a reality.

Sincerely,

Olympia J. Snowe
United States Senator

Susan M. Collins
United States Senator

Tom Allen
Member of Congress

Michael H. Michaud
Member of Congress

cc: Gen. John W. Libby

DCN: 11596

Congress of the United States

Washington, DC 20515

April 5, 2005

The President
The White House
Washington, DC, 20500

Dear Mr. President:

As your Administration develops its National Security Strategy for Maritime Security, we write to affirm that the strategy recognize and integrate the capabilities and geographical reach of the Navy's maritime patrol aircraft, the P-3C Orion and its eventual replacement, the Multi-Mission Maritime Aircraft (MMA).

We are Members of Congress who represent U.S. Navy maritime patrol bases at the "four corners" of the continental United States and Hawaii. These Naval Air Stations in Brunswick, Maine, Jacksonville, Florida, North Island (San Diego), California, Whidbey Island, Washington, and Kaneohe Bay, Hawaii, are home to P-3C Orion aircraft, the U.S. military's maritime patrol platform.

The P-3 squadrons located at these sites are perfectly situated for maritime interdiction of terrorist threats. The P-3 has adapted into a wide array of missions beyond its classic anti-submarine warfare role, including intelligence, surveillance, reconnaissance and anti-surface warfare. The P-3's value to maritime interdiction has been demonstrated through its successful incorporation in the multinational exercises conducted as part of the Proliferation Security Initiative.

The next generation MMA will offer commanders responsible for maritime interdiction even more capability than the P-3. From the "four corners," the MMA's response time to any point on the continental coast will be less than two hours. All major sea lanes of approach can be covered within operational range of the aircraft.

The Maritime Domain Awareness component of the national strategy calls for "an enhanced capability to identify threats to the Maritime Domain as early and as distant from our shores as possible by integrating intelligence, surveillance, observation, and navigation systems into a common operating picture." The P-3 and MMA fleets are perfectly suited to meets this objective.

In addition to the capabilities of the aircraft themselves, the emerging strategy must consider optimum basing for maritime patrol assets. Maritime Domain Awareness and an effective homeland defense posture will require rapid response to all coastal areas of the nation, particularly near cities and ports. We must ensure that the maritime interdiction capabilities that are required by the new maritime security policy are able to provide comprehensive geographic coverage of the coasts.

Again, we urge that the National Security Strategy for Maritime Security give all due consideration to the capabilities of our nation's maritime patrol aircraft fleet.

Sincerely,

Tom Allen
Member of Congress

Ander Crenshaw
Member of Congress

Susan Davis
Member of Congress

Rick Larsen
Member of Congress

Neil Abercrombie
Member of Congress

cc: The Honorable Donald Rumsfeld, Secretary of Defense
The Honorable Michael Chertoff, Secretary of Homeland Security
Mr. Stephen Hadley, National Security Advisor
Ms. Frances Fragos Townsend, Homeland Security Advisor

DCN: 11596

Congress of the United States

Washington, DC 20515

April 18, 2005

The Honorable Donald H. Rumsfeld
Secretary of Defense
1000 Defense Pentagon
Washington, DC 20301-1000

Dear Secretary Rumsfeld:

We have had the opportunity to review the pre-decisional draft of the *Strategy for Homeland Defense and Civil Support*. We commend the President and you for your leadership on this initiative, and offer our assistance in helping to implement this strategy.

In particular, we are pleased to see that the strategy gives extensive consideration to the critical maritime aspects of homeland defense. As Members of Congress from Maine, a state with a long coastline and significant maritime commercial interests, we recognize that guarding maritime approaches is an essential component in protecting the homeland.

We are strong supporters of the Navy's maritime patrol fleet. We believe that this community, with its P-3C Orion aircraft and the next generation Multi-Mission Maritime Aircraft (MMA), form an indispensable component to the overall homeland defense strategy:

1. Among its strategic goals and key objectives, the strategy states that as part of the layered defense concept, the Departments of Defense and Homeland Security are working to "integrate U.S. maritime defense and to optimize the mutually supporting capabilities of the U.S. Navy and Coast Guard." It quotes the Chief of Naval Operations on the need to identify, track and intercept threats before they reach U.S. shores, and to "extend the security of the United States seaward." The P-3 is perfectly suited for this mission, and has already adopted an array of joint intelligence, surveillance, reconnaissance and anti-surface warfare activities. With its extended range, speed, and sensor suite, the MMA will offer even more capability.

2. The strategy identifies the need for core capabilities to (a) detect and track potential maritime threats effectively, (b) intercept and defeat threats in the maritime approaches, and (c) direct consequence management.

The maritime patrol fleet provides these capabilities today, to help "ensure persistent wide-area surveillance and reconnaissance of the U.S. maritime approaches." With maritime patrol bases located at the "four corners" of the continental United States, as well as on Hawaii, the P-3 fleet is optimally based to provide comprehensive maritime domain awareness. In the future, the MMA's increased capabilities will allow a response time to any point on the coast of less than two hours from these bases. All major sea lanes of approach can be covered within operational range of the aircraft. As an example, Naval Air Station Brunswick is located strategically astride the Atlantic sea lanes. As the only capable active duty airfield in the Northeast, the base is uniquely positioned to provide awareness of the maritime approaches and protect the economically critical ports in the region. Aircrews from NAS Brunswick have been flying in support of Vigilant Shield since September 11, 2001.

The strategy also calls for enhanced international collaboration to establish maritime domain awareness of identification and interdiction of potential threats. The P-3 has already demonstrated its value in this area through its contribution to the multi-national exercises under the Proliferation Security Initiative. NAS Brunswick is integrated as a NATO facility and regularly supports multiple types of foreign aircraft.

The P-3 also provides a valuable tool for consequence management for chemical, biological, radiological, nuclear of high-yield explosive (CBRNE) attacks. As demonstrated in the aftermath of the South Asian tsunami, the P-3s are a rapidly deployable asset that provides decision-makers with real-time information which cannot be provided by any other airborne platform in the U.S. inventory.

3. The strategy identifies the need for shaping the force structure for homeland defense missions. As mentioned, the maritime patrol fleet is already proven to successfully adapt to multiple missions. The strategy calls for the development of new generations of sensors to enhance domain awareness and maritime defense. Both the advanced sensor suite on board the MMA and the aircraft's planned operational integration with the BAMS UAV meet this goal.

The strategy also observes the critical role for the Naval Reserve in maritime security. The reserve P-3 components have fully integrated with active duty squadrons, forming a seamless operational force. In the case of NAS Brunswick, we note that the planned establishment of a Joint Armed Forces Reserve Center on the base will further enhance the Naval Reserve's role in homeland defense.

Again, we welcome the development of the *Strategy for Homeland Defense and Civil Support* as a critical step toward ensuring we have the right strategy, capabilities and force structure to defend the homeland. It is clear that the U.S. Navy's maritime patrol fleet will be an indispensable part of this strategy. We appreciate your consideration of our comments, and look forward to working with you to advance this strategy.

Sincerely,

OLYMPIA J. SNOWE
United States Senator

SUSAN M. COLLINS
United States Senator

MICHAEL H. MICHAUD
United States Representative

THOMAS H. ALLEN
United States Representative

cc: Mr. Stephen Hadley, National Security Advisor

DCN: 11596

Congress of the United States

Washington, DC 20510

May 25, 2005

The Honorable Anthony Principi
Chairman, Base Realignment and Closure Commission
2521 South Clark Street Suite 600
Arlington, VA 22202

Dear Chairman Principi:

We wanted to take this opportunity to bring to your attention information in Volume IV of DoD's Base Closure and Realignment Report regarding Brunswick Naval Air Station (BNAS). The supporting documentation, particularly in regard to the estimated economic impact of realigning BNAS, can be noted on page C-11 of the Navy's Analyses and Recommendations.

The Navy's report notes that, over the period of 2006-2011, the realignment of BNAS would result in a reduction of 4,266 jobs in the Portland-South Portland-Biddeford Metropolitan Statistical Area (MSA), which would account for 1.29 percent of employment in the MSA. In describing the local impact of the loss of 4,266 jobs in terms of the Portland-South Portland-Biddeford Metropolitan Statistical Area (MSA), DoD included Brunswick in an MSA of which it is not a part. In fact, according to the definitions of Maine's labor market from the Maine Department of Labor, Brunswick is an independent Labor Market Area (LMA), defined by the United States Bureau of Labor Statistics as, "an economically integrated geographical area within which workers can reside and find employment within a reasonable distance or can readily change employment without changing their place of residence." Since Brunswick is not a part of the Portland-South Portland-Biddeford MSA, the Navy significantly underestimated the economic impact of realignment at BNAS in terms of jobs lost on the regional economy.

As the Pentagon has testified that it is willing to put the economic impact of its BRAC recommendations into any context requested by the Commission, we hope that you will request amended information from the Navy that demonstrates the truly detrimental effect the proposed realignment would have on the Brunswick LMA. We expect that closer scrutiny of the local market job loss on the Brunswick LMA will show that the impact would be vastly higher than the conservative estimate of 1.29 percent.

We would be happy to work closely with you and your staff in order to ensure that the BRAC Commission is receiving accurate data from DoD. Given the enormity of DoD's recommendation for BNAS, it is crucial that the Pentagon be honest with the Commission by providing data that represents the true economic impact of its proposals. As an additional resource, information about Maine's labor market definitions can be accessed at http://www.maine.gov/labor/lmis/LaborMarketAreaDefinitionsChange.html.

DCN: 11596

We appreciate all of your hard work in ensuring that the Pentagon's recommendations were formulated fairly, openly, and objectively. As you conduct your review, we hope that you will investigate this particular error of great concern to Maine and our nation.

Sincerely,

Olympia J. Snowe
United States Senator

Susan M. Collins
United States Senator

Tom H. Allen
Member of Congress

Michael H. Michaud
Member of Congress

cc: Sec. Anthony Principi, Chairman, 2005 Defense Base Closure and Realignment Commission
Hon. James Bilbray, Member
Hon. Phillip Coyle, Member
ADM Harold Gehman, USN (ret), Member
Hon. James Hansen, Member
Gen. James Hill, USA (ret), Member
Gen. Lloyd Newton, USAF (ret), Member
Hon. Samuel Skinner, Member
Gen. Sue Ellen Turner, USAF (ret), Member

DCN: 11596

United States Senate
COMMITTEE ON
HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS
WASHINGTON, DC 20510–6250

May 25, 2005

The Honorable David M. Walker
Comptroller General
U.S. Government Accountability Office
441 G Street, N.W.
Washington, DC 20548

Dear Mr. Walker:

We are writing to provide input to the review being conducted by the U.S. Government Accountability Office (GAO) concerning the recommendations of the Department of Defense (DoD) for the closure and realignment of military installations. As you know, the Defense Base Closure and Realignment Act of 1990 as amended requires GAO to provide "a report containing a detailed analysis of the Secretary's recommendations and selection process." Section 2903(d)(5)(B). This report is due by July 1, 2005. Section 2914(d)(6).

As a threshold matter, we are concerned that DoD has not complied with its statutory responsibility to "mak[e] all information used by the Secretary to prepare the recommendations ... available to Congress (including any committee or member of Congress)...." Section 2903(c)(4). The Secretary is also required to disclose this information to the Commission and GAO. Id. DoD's failure to disclose this information to Congress obstructs the ability of Congress to undertake a substantive review of the Secretary's recommendations, a process that is expressly contemplated by the Defense Base Closure and Realignment Act. DoD has been on notice of the need to disclose such data since the current base closure round was authorized in the National Defense Authorization Act for Fiscal Year 2002 and has no excuse for the delay in releasing the data.

In addition, we request that GAO's detailed review of the Secretary's recommendations include particular emphasis on the following issues:

1. Was the Original Data Accurate and Sufficient? The accuracy of the data provided by military installations in response to data calls from DoD is critical for ensuring the validity of DoD's process. We understand that the Military Services' audit agencies and the DoD Inspector General have been extensively involved in reviewing the data. We expect that GAO's report will include a comprehensive evaluation of the data's accuracy, including a review of whether these agencies and the Inspector General discovered any problems with the data, whether DoD's

process used any corrupted data, and whether the use of such data materially affected DoD's recommendations. We hope that GAO will spot-check data provided by various bases to validate its veracity. In addition, we also expect that GAO will examine the data calls themselves to ensure that DoD requested data of the appropriate type and sufficiency - including why some bases received no data calls. For example, the Navy does not appear to have requested data concerning the differential cost of executing like-work between naval shipyards.

2. Was the Cost of Base Realignment Actions (COBRA) Model Robust and Fair? We appreciate the complexity involved in determining the costs associated with base closures and realignments and that DoD has sought to improve the COBRA model. However, GAO should perform a thorough assessment of the COBRA model as used by DoD for its recent recommendations, including whether the COBRA model's inherent limitations materially affected DoD's recommendations. For example, the COBRA model does not appear to be well-suited for assessing the costs of closing heavy industrial, multi-structure facilities and as a result overstates the savings and payback period for the return on investment.

3. Did DoD Count the Full Range of Costs? We are concerned that DoD has not taken into account the full range of costs associated with base realignments. We request that GAO examine such costs as the federal aid required to enable communities to absorb thousands of new personnel and the impact of such absorption on preexisting infrastructure such as housing stock and schools. We believe that such costs would materially affect DoD's recommendations, including the projected payback periods. GAO should also assess why the payback periods in DoD's recent recommendations are longer than the payback periods used in previous base-closing rounds.

4. Has DoD Included Costs Unique to Each Particular Base? We request that GAO analyze whether DoD has underestimated or ignored costs that are unique to each particular base slated for closure. In particular, we request that GAO examine the projected costs of both environmental remediation and the de-commissioning of nuclear facilities to ensure that they are derived from real-life examples of base closings rather than models, which are prone to underestimation. Indeed, GAO should assess whether environmental remediation and nuclear de-commissioning entail substantial new costs that materially alter the projected payback period. Also, GAO should ensure that the costs of closing a nuclear facility include the likelihood that DoD will be unable to secure licenses or community support for opening new nuclear facilities in the future in the areas in which it now proposes to close nuclear facilities. Finally, GAO should determine whether there are other unique costs to each base closing that DoD did not factor into its calculations, such as the loss of particular public/private synergy.

5. Did DoD Consider the Full Range of Options? GAO should examine whether DoD assessed the full range of options aside from base closures, including shifting workloads and

expanding private-sector capacities at certain bases. Also, we request that GAO explain why DoD recommended closing particular bases and preserving other, similar bases rather than realigning all of them, and whether the existence of private sector capabilities such as private shipyards factored into DoD's judgments.

6. How has DoD Calculated Military Value? GAO should inquire how DoD calculated military value, including whether there are alternative methodologies for assessing military value, to include such factors as speed of deployments, flexibility of maneuvers, and cold weather operations. We hope that GAO will highlight and explain instances in which bases with higher military value were closed as compared to bases with lower military value.

7. Did DoD Consult with Other Departments and Allies? We would like GAO to determine whether DoD consulted with other Executive Branch departments such as the Departments of Homeland Security and Energy and with allies such as the North Atlantic Treaty Organization regarding the missions of bases slated for closure or realignment. We believe that bases should not be examined myopically in terms of their value to DoD only but rather should be viewed in the strategic context of the country's broader security interests.

8. Has DoD Preserved its Capability for Homeland Defense? We request that GAO ascertain how DoD's recommendations affect each region of the United States and whether the recommendations detract from DoD's mission of homeland defense. For example, the Northeast and Midwest arguably are the least-guarded regions - despite the increasing focus on homeland defense and the number of prominent targets for terrorist attack in those states. The eighteen Northeastern and Midwestern states accounted for thirty-five of the ninety-five major base closings during prior base-closing rounds. These states currently account for forty percent of the U.S. population but only ten percent of the active duty personnel stationed domestically. Northeast-Midwest Institute, Updated Summary Report on Base Closings and Military Presence in the Northeast-Midwest: The Nation's Unguarded Region, April 2005. GAO should examine how closures or realignments affect DoD's homeland defense capabilities, including the provision of support to civil authorities both on a regular basis and in the event of a major domestic emergency.

9. Did DoD Maintain the Integrity of Its Decision-making Process? We understand that GAO has been monitoring DoD's decision-making process on a real-time basis. Given GAO's understanding of the process, it is critical for GAO to judge whether DoD's recommendations deviated significantly from DoD's apparent decision-making trajectory during the preceding months. If there were substantial deviations in the final stage, GAO should investigate why such changes took place. More generally, in its assessment of the above-referenced questions, GAO should determine whether there were any instances of results-oriented or preordained decisions by DoD at any stage of the process.

Thank you for your consideration of this matter.

Sincerely,

Susan M. Collins
Chairman

Joseph I. Lieberman
Ranking Member

DRAFT FOR REVIEW AND COMMENT BY GOVERNOR'S OFFICE, STATE PLANNING OFFICE, DECD AND BNAS TASK FORCE

Economic Impact: Realignment of the Brunswick Naval Air Station

Summary:

The economic impact to Brunswick and the surrounding Bath/Brunswick region as determined by the Department of Defense is flawed.

1. The Department of Defense has calculated the economic impact based on the assumption that all 5,000+ military personnel at BNAS are active duty. Of the total military positions at BNAS, 2,317, or less than half are ACTIVE duty military. The remainder includes 1,341 reservists (SELRES) which are included in the full-time military payroll count along with 400+ SUPSHIP Naval personnel and 702 civilian positions.
2. The Department of Defense has assumed that Brunswick is located within the Portland Standard Metropolitan Statistical Areas (SMSA) for purposes of economic impact analysis. Brunswick is not located in the Portland SMSA and the numbers are flawed. The use of the Portland SMSA greatly impacts the analysis.
3. The Department of Defense has not considered the geographic location of the base in the Town. The base is located in the center of the Town of Brunswick and divides the community into two areas. By de facto "mothballing" the base, the inability of the community to seek redevelopment and reuse opportunities will substantially impact business, recreational, residential and job replacement opportunities.

The following should be specifically considered:

- BNAS realignment will result in a loss of 2,317 full time *active duty military* employees leaving the area. *This is a reduction of 85% of the total current active duty military.*
- Lost opportunity costs will greatly impact the areas ability to recover job losses and revenue. The current plan to "realign" the base will be a de facto "mothballing" and will not enable the community to pursue reuse

alternatives for recreation, industrial development, open space and other appropriate uses for the area.

- Unemployment will increase to between 10-11% based upon the indirect jobs that will be impacted by the realignment.
- Rental housing vacancies of 1,500 units represent about 30% of the regional supply and 50% of the Brunswick of multifamily rental housing.
- The local real estate market will decline and real estate valuations will decrease, especially in the multi-family and smaller home single family market.
- Navy Housing Privatization issues impact Town funding.
- School student loss reduces the quality of education for all.

This information is provided to encourage the Department of Defense to reconsider the recommendation for realignment of Brunswick Naval Air Station. A preliminary REMI economic analysis has been run however a number of issues involved in the measurement of military employment pre and post realignment need to be resolved before the model can be fully employed to understand the economic consequences.

This report is intended to capture major issues only and is organized with the following information:

Labor Market Impact
Payroll Impact
Real Estate Impact
School/Education Impact
Retail Sales Impact
Lost Opportunity Costs
Military Retiree Community
Spousal Impact
Quality of Life Indices

Labor Market Impact:

Note: The following labor market information is specifically for the Town of Brunswick as the local area *and the Bath/Brunswick Labor Market as a regional area.*

- BNAS employment (both civilian and military) represent over 33% of the Town of Brunswick labor force and 13% of the Bath/Brunswick Labor Market.
- Unemployment rates, as a result of realignment, would increase from 4.7% in February, 2005 to between 10% and 11% of the Bath/Brunswick Labor market, depending on base data used.
- The number of people employed in the Bath/Brunswick Labor Market would decrease by 7%.

Town of Brunswick and Bath/Brunswick Regional Labor Market Impacts		
	NASB	**Percent**
Town of Brunswick Labor Market:		
Total BNAS Jobs	5,227	
Total Non-BNAS Jobs in Town of Brunswick Labor Market	10,687	
Total BNAS and Non-BNAS Jobs in Town of Brunswick Labor Market	15,914	
Percent of BNAS Jobs in Town of Brunswick Labor Market		**33%**
Percent of Non-BNAS Jobs in Town of Brunswick Labor Market		67%
Total Percent BNAS and Non-BNAS employees		100%
Bath/Brunswick Labor Market:		
Total BNAS Jobs	5,227	
Total Non-BNAS Jobs in Bath/Brunswick Labor Market	35,610	
Total BNAS and Non-BNAS Jobs in Bath/Brunswick Labor Market	40,837	
Percent of BNAS Jobs in Bath/Brunswick Labor Market		**13%**
Percent of Non-BNAS Jobs in Bath/Brunswick Labor Market		87%
Total Percent BNAS and Non-BNAS employees		100%
Impact of BNAS Realignment on Labor Markets:		
Civilian Job Losses (source: DOD)	61	
Indirect Job Loss Projections (source: SPO)	1,194	
Total Civilian and Indirect Job Loss	2,255	
Resulting Unemployment Rate in Bath/Brunswick Labor Market		10%
Resulting Bath/Brunswick Civilian Labor Market? Realignment	37,905	
Percent Decrease in Bath/Brunswick Labor Market Participation		7%

- BNAS realignment will result in a loss of 2,317 full time *active duty military* employees leaving the area. *This is a reduction of 85% of the total current active duty military.*
- Military Reserves will be reduced, leaving 1,075 Reserves at BNAS. These reserves operate on a weekend and reserve training basis only, with up to 50% residing outside the state. The Reserves are primarily ground based reserves; no flight related staff will remain.
- Civilian Jobs Loss: The military identifies 61 civilian jobs that are to be

cut. That is the "low projection". If the present ratio of military to civilian support were to remain, the civilian job loss number may grow to as many as 615. That would more than double the present unemployment rate (including indirect job elimination).

- Summary: Overall, jobs will continue decline as a result of the decline in military jobs through 2009 (REMI Model, May 2005). The result will be a depressed job market in the local economy.

Payroll Impact:

BNAS produces $295 million in direct and indirect payroll per year. To place this in context with the local area, that monetary amount is over half of all payrolls produced by employees in Sagadahoc County on an annual basis. Projections, (which do not include the high projection for lost civilian jobs) suggest a loss of $136.2 million in payroll from the BNAS realignment, or over 50% of the BNAS present payroll.

BNAS Payroll and Payroll Impacts Before Realignment

		Direct	Indirect	Total
BNAS Payroll	Civilian	$22,000.000	$10,800,000	$32,800,000
	Military	$125,000,000	$53,400,000	$178,400,000
Procurement		$0.00	$84,500,000	$84,500,000
Total Earnings		$147,000,000	$148,700,000	$295,700,000
Employment		5,227 employees	4,918 employees	10,145 employees
Earnings Per Employee		$28,123	$30,236	$29,1147
Procurement			$2,736	$2,736

BNAS Payroll Realignment Impacts

		Direct Loss	Indirect Loss	Total Loss
BNAS Payroll	Civilian	$2,000,000	$1,000,000	$3,000,000
	Military	$67,500,000	$19,400,000	$86,900,000
Procurement		$0	$46,300,000	$46,300,000
Total Earning Lost		$69,500,000	$66,700,000	$136,200,000
Decrease after Realignment		-53%	-55%	-44%

Source: Brunswick DECD, State Planning Office, 2005

- Salaries can range (including salary and housing assistance) from $42,990 to $74,250. These salaries are within the median income range of the region; there loss will negatively impact average median salary.

- The preliminary REMI model calculating impact on various economic sectors in the region shows the following:
    - Retail sales loss of $15.5 million annually.
    - Real estate and rental losses exceeding $12.5 million annually.
    - The financial and insurance markets will decrease by almost $12 million annually.
    - The construction industry will decline by almost $10 million annually
    - Declines occur to 17 different sectors in the economy and are projected to continue through at least the next ten years.

Real Estate Impact:

The impact to the Brunswick area real estate market is dramatic. It should be viewed in three areas; impact on the Town government due to the privatization of military housing in November of 2004, impact on landlords/renters and impact on the home owner market.

1. Navy Housing Privatization Impact on BNAS Realignment

In November 2004 Brunswick and Topsham both entered into Agreements with GMH Communities Trust (Northeast Housing LLC) a partner with the Navy, which acquired housing units while enabling the Navy to retain the underlying land. As a result of this "military housing privatization", Brunswick and Topsham started providing some services to the military housing in exchange for a payment in lieu of taxes.

In Brunswick, the Town expects to receive $544,000 per year to provide negotiated services to 463 housing military housing units which are located "outside the fence". The Town has anticipated receipt and expenditure of those funds as part of the budgeting process.

Loss of $544,000 yearly income to the Town of Brunswick used to fund municipal services is significant. The Town of Topsham.....

2. Off Base Home Ownership Housing Impact:

Military representatives estimate that up to 2,000 personnel live off base, with the majority residing in the towns of Brunswick, Bath and Topsham. Of the total off-base personnel, it is estimated that 500 own their own homes and 1,500 are in rental units. Up to 2,000 housing units within the core housing market area are at-risk for becoming vacant. Most of these units are at the middle to lower end of the housing market.

The flow of BNAS personnel from the housing market will depress the local housing market and significantly depress the local construction industry. It is

estimated that 56% of the military families live in Brunswick, suggesting that as many as 149 homes may be owned by military personnel. Approximately one fifth of those homes purchased each year are new construction, therefore, the loss of annual construction revenue to Brunswick is $5.9 million.

The housing market will see a flood of homes put on the market which will have a negative impact on the number of properties sold and total sales, resulting in substantial losses to the local, regional and state real estate economy. Assuming that military families make up 149 home purchases in any one year in Brunswick, the loss of buyers could impact the number of properties sold, reducing the number of sales by between 31% and 54% annually.

Residential Property		
Year	# Of Properties Sold	Total Sales
2001	276	$42,307,896
2002	390	$59,370,250.40
2003	453	$82,550,781
2004	482	$114,112,534
2005	71 (1st Quarter)	$15,989,210 (1st Quarter)

Source: Brunswick Assessing Office: 2005

3. Rental Market Impact:

The impact on rents and price levels in the community would be substantial. It is estimated that Navy personnel living in private housing in the communities account for 30-35% of those living in multifamily units. Taking privatization and off base housing together, current Navy plans would result in 50% of the apartments becoming vacant. This will result in a dramatic loss of rental income to landlords, devaluation of property values and loss of tax income to the towns, the potential for disinvestment and other social and economic impacts.

School/Education Impact:

Children of military employee at BNAS average approximately 20% of the student population in the Town of Brunswick School Department each year. In the past ten years, between 595 to 671 military-dependent children have been included in the approximate 3,300 total school population. In addition to the numbers positive social benefits that these children have brought to the community, the School Department receives approximately $1.1 million in Federal Education Aid.

Lost students and lost funding would all decrease the quality of education

provided to the remaining residents of Brunswick by reducing the diversity of students and the programs that can be offered.

Impact on Local Colleges

- University of Maine-Augusta (located in Bath) currently enrolls approximately 400 students. Of that total, 20 - 25% are active duty or dependents of active duty military, which calculates to 80 –100 students. Base realignment would result in the loss of approximately $400,000 in revenue, reduced class offerings and loss of employment.
- Southern Maine Community College estimates a decline in student enrollment by 10-15%. The college would correspondingly reduce classes and professors.

Lost Opportunity Costs:

The geographic location of BNAS is significant. The over 3,000 acres which make up the base bisect the Town of Brunswick into two separate commercial and residential areas. Any decision to de facto "mothball" the base will deprive the community and the state of the opportunity to reuse portions for recreation, open space, industrial development, housing, job replacement activities and may other uses that contribute to the health and vitality of a community. As an operational base, the personal significantly contribute to the community. As a "mothballed" base, the land, and resulting lack of activity will divide the community. The lost redevelopment, joint reuse, should be considered as a significant economic and social impact.

Retail Sales Impact:

It is estimated that 83% of BNAS military personnel live in Brunswick, or its immediate surround communities. With a payroll reduction of $69.5, it can be expected that the impact in retail sales will be significant. The preliminary REMI model) suggests that there would be a decrease of $22.9 million in retail trade venues throughout Cumberland County. The Brunswick area would be hardest hit

Assuming that 50% of the military payroll is spent in Brunswick and applying an average disposable income figure for military families of 33%, the annual retail sales loss would be approximately $11 million per year. This would likely apply across all retail categories. Its impact on the local economy is substantial.

Military Retiree Community

An estimated 5,700 military retiree's and family members live in the area to take advantage of the region and BNAS. The impact of base realignment on

this group is unknown however; it is known that currently the 60% of all commissary customers are military retirees. Of the total commissary customers, 33% are active duty, 7% are reserves and the remainder is retirees.

Spousal Impact:

Between 60-75% of all full-time active duty military spouses work in the local job market. The role of spouses in the local economy can not be overstated. Recent surveys of the job center suggests that military spouses play an important role in role in participating in local part time jobs as well as participating to fill both part time and full time teaching needs in the school system. They are also active volunteers.

Quality of Life Indices:

The national media views Brunswick as a great location to live. The cultural and natural amenities it offers attract many looking to relocate to a unique and special place. Among the military, Brunswick is a very popular place to retire, with the existing base being a critical reason for that choice. Over 5,700 military retirees and their families have chosen to live in the Brunswick area (Census, Town of Brunswick).

Other populations that find Brunswick a great place to live are:

- Cyclists: AARP (Nov. /Dec. issues) identified Brunswick as the 8th best place to cycle in the nation.
- Money magazine identifies Brunswick as the 3 best place to retire (July, 2000).
- Outside Magazine identifies Brunswick at one of the Top 40 College Towns in the Country.
- Brunswick has been featured as a top retirement community in Where to Retire (November, 2003), The *New Retirement: The Ultimate Guide to the Rest of Your Life* (Cull inane, Fitzgerald), and *Where to Retire in Maine* (Doudera).

The popularity of Brunswick as a place to live extends to the military as well. Expansion Management published the results of a survey in its magazine in November of 2004. Among the 354 metropolitan areas that house military bases, Brunswick was ranked 74, or in the upper 20%. The report, which tested for a variety of quality of life indices, ranked Brunswick high in quality of life, education, lack of crime, housing availability, recreation and leisure, among others. Brunswick ranked number one in its population group for have the lowest crime rate. These and many other characteristics make Brunswick one of the top places for military personnel to live or retire.

DCN: 11596

Topic: Multi-Mission Maritime Aircraft (MMA) Site Survey, 21-24 March 2005, NAS Brunswick, ME

Background: The MMA Program (PMA 290) is preparing a series of Site Evaluation Reports (SER). The scope of this SER is to assess the potential of NAS Brunswick as a Main Operating Base (MOB). The first seven aircraft will be based at NAS Patuxent River for proof-of-concept testing. NAS Jacksonville is slated to house the Fleet Replacement Squadron and first East Coast MOB. This site survey was conducted to support the development of the SER for establishing a MOB at NAS Brunswick. (Site surveys will also be conducted of Kaneohe Bay, HI, Kadena AB, Misawa AB and Guam in June 2005, of Whidbey Island and Point Mugu in October 2005, and of Sigonella, Bahrain and Qatar in January 2006.)

Activities: On 21 March the Survey Team (Attachment 1) convened at NASB Public Works Office. The team was composed of representatives from PMA 290, PMA 205, CNI, Boeing, and Northrop Grumman. The team met with the PWO, Cdr. Molnar and DPWO, Tom Brubaker, for a brief on NAS Brunswick facilities. This was followed by an in brief by Dave Tuemler, PMA 290 to Capt Winneg, C.O. of NASB.

From 21-24 March the Survey Team operated following fairly closely the schedule of Attachment 2. An out-brief was held on 24 March with Capt Winneg and Cdr Craige.

Take-Aways:

- Summary: From an infrastructure perspective, Naval Air Station Brunswick is ready to support IOC 2013 and should be seriously considered as a site for one of the east coast Main Operating Bases. NASB requires low cost investment to support MMA IOC 2013.
- Airfield and Support Facilities:
    - Hangar 6 was assessed to be ready for MMA to move in to. The proposed 125 ft. wingspan can be accommodated in Hangar 6. The hangar may need to have hard points installed to support the increased weight of the MMA. Boeing engineers will offer a recommendation on this. Hangar 6 BOD was March 2005. Facility cost was $34M.
    - Hangar 5 was built in the 1980's. Initially, this hangar would be used to support P-3 squadrons. This hangar could be modified to support MMA by increasing the depth of the hangar to accommodate the length of the aircraft and increasing the height of hangar doors to accommodate the tail height.
    - A new control tower will be completed in Spring 2005 at a cost of $7.9M. SPAWAR is scheduled to install new equipment in late summer. The new control tower will be operational by Fall 2005.
    - Parallel runways, 8,000 l.f.
    - NASB offers sufficient parking apron for basing 18-30 aircraft. At peak loading, however, aircraft may need to be towed in and out to park aircraft closer to each other than the required separation of 650 ft between aircraft.
    - Blast Fence construction will be required.
- Maintenance Facilities: Hangar 6 has sufficient space for the 146 contractor/maintainers that will be assigned to the site. There may be some need for AIMD support, but it is expected to be minimal.
- Supply Support Facilities: Warehouse space required by Boeing is available in B-294. Space for Boeing can be segregated within B-294. Some modification to the loading ramp

will be required, but NASB has already programmed this modification for current operations. There will be a reduced need for warehouse space because Boeing will provide "just in time delivery" of parts.

- Training Facilities: Existing facilities cannot be modified to accommodate the Follow-On Operational Trainers. A MILCON will be required for construction of a facility to house the Follow-On Trainers. This facility must be completed no later than 3rd Quarter after IOC.
- Tactical Support Center/Mobile Operational Control Center: The Northrop Grumman engineer that is developing the TSC requirements stated that the existing TSC facilities need to be expanded for MMA and will definitely need a SCIF specifically for MMA.
- Fueling Facilities: NASB can store up to 2 tanks of 400,000 gallons of JP8 fuel and has three fuel trucks that can hold 10,000 gallons. The MMA holds 10,000 gallons. De-fueling is accomplished with fuel trucks and later filtered.
- Airspace: NASB has 4,000 square miles of clear airspace.
- Ordnance: The arming and de-arming pad ('red pad") can easily manage MMA on the current configuration. The survey team asked the PWO staff to study and offer proposals for expansion of the 'red pad' to accommodate more than one MMA at a time.
- Administrative space: Hangar 6 has sufficient space to accommodate the contractor.

Action Items:

- **AICUZ Update** – The last AICUZ study for NASB was completed in 1977. This study will need to be conducted as part of the NEPA process.
- **Noise Analysis** - This study will need to be conducted as part of the NEPA process.
- **Training Facility Requirements** – PMA 205 will review and update its facility requirements for simulators and related classroom, office space and provide to PMA 290.
- **Red pad expansion and Blast Fence**- The PWO staff took this task on and will provide alternatives.

Conclusion:

From an infrastructure perspective, Naval Air Station Brunswick is feasible as a MOB location with minimal investment required for IOC 2013.

DCN: 11596

Attachment 1
MMA Site Visit
NAS Brunswick, ME
(Survey Team members in bold)

NAME	ORGANIZATION	PHONE	E-MAIL
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Craigie, Kyle CDR	NASB, X.O.		
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DCN: 11596

Attachment 2
Site Visit Agenda

Day One

- In Brief to Installation Commanding Officer

Tours of following:

- Hangars - All
    - Office Spaces
    - MX Spaces
    - Storage spaces
    - Package Handling Storage &Transportation
    - Inside
    - Outside
    - Fire Protection
    - Power Supply
    - Grounding
    - ALSS – aircraft life support systems (PR)
    - Ramp and Parking Spaces
    - Wash Rack
    - Rinse Rack
    - Hot Pads – location; restrictions; "red road"
- Review Findings with Team

Day Two

Tours of following:

- Tactical Support Center: Quick Tour –All; Detailed Tour – Jim and Bill
- Training Facilities – Jim and Bill
    - Deep Dive
- AIMD – All
    - De-Icing
    - Support Equipment shops and Storage
    - Wheels, Tires, Brakes
    - Rinse Rack
- Base Supply
    - Fueling
    - Battery locker
    - Fuel Storage
    - PHS&T
    - HAZMAT
    - Sonobuoy storage
    - O2/N2 recharge
- Review Findings with Team

Day Three

Interviews with following staff:

- Environmental – AICUZ; noise; natural resources
- Environmental Compliance – air; water; HAZMAT, disposal restrictions
- Airfield

  - Crash Recovery
  - Noise Abatement
  - AICUZ map
  - Engine run-up area restrictions
- Supply
- Review Findings with Team
- Prepare Out brief

Day Four

- Out brief to Installation Commanding Officer

DCN: 11596

Attachment 3
DRAFT
MMA Facility Requirements

Facility	Requirement	Action Required
Hangar	Test & evaluate 3 aircraft	Use Hangar 6
Blast Fence	TBD	TBD
Arming/De-arming Pad	Expand for 2 MMA	TBD
Administrative	2,700 sf	Use Hangar 6 space
Warehouse area (CLS)	4,000 sf	Segregate 4,000 in B-294 for contractor
Maintenance (CLS)	2,000 sf	Use Hangar 6 space
SE Maintenance/Storage (CLS)	3,600 sf	Use existing facilities
PR Equip. Maintenance/Storage (CLS)	1,000 sf	Use existing facilities
Training Facilities	19,496 sf ?	MILCON
Tactical Support Center	??? SF SCIF	TBD
Hazardous Materials (CLS)	Storage lockers	Use existing facilities
Ordnance	N/A	Use existing facilities
MMA Crew Space (210 pn)	??? sf	Hangar 6 Ready Room
Facility Planning Estimate (Prelim)	32,796 SF	

This Table gives a conceptual breakdown of the types and sizes of functions required to support a MMA Main Operating Base. As noted some requirements are yet to be developed.

Blast Fence: NASB PW staff will provide a scope requirement.
Arming/De-Arming Pad: NASB PW staff will provide a proposal.
Instrumentation lab and Data Processing lab space requirements will be provided by Boeing.
Training Facility space requirements will be reviewed and revised if necessary by PMA 205.
Tactical Support Center space requirements will be provided by Northrop Grumman.
Ordnance storage requirements are assumed to be same as P-3 requirements, but will verify.
MMA Crew Space estimated based on crew size of 7 per aircraft x 30 aircraft. This needs verification.

NAVAL AIR STATION (NAS) BRUNSWICK MAINE
MMA SITE EVALUATION REPORT
(PRELIMINARY)

1. INTRODUCTION

1.1 Purpose

The purpose of this Site Evaluation Report (SER) is to identify the support requirements for the Multi-mission Maritime Aircraft (MMA) during introduction at Naval Air Station (NAS) Brunswick, Maine. The data provided is intended as guidance in developing a Site Plan and supporting DD Form 1391s for NAS Brunswick.

1.2 Scope

The Preliminary SER delineates the support requirements for both operational and training facilities as established during the acquisition process and is supported by the P-3 Weapon System Planning Document (WSPD) and the OPNAV (N78) U.S. Navy Aircraft Inventory Budget Exhibit. The Preliminary SER is provided as a guide to be used in conjunction with the Boeing Facilities Requirements Document (FRD – Attachment A) in development of the proposed Site Plan.

Once the Preliminary SER has been reviewed and NAS Brunswick personnel have developed a proposed Site Plan, the SER will be updated and used in facilities planning. Also the SER will be staffed at the appropriate levels to ensure concurrence by N78. The MMA Program Office will assist NAS Brunswick in the development and tracking of the appropriate documentation to ensure a successful introduction of MMA.

1.3 Assumptions

The following assumptions were identified and used during the MMA Systems Development and Demonstration (SDD) contract and subsequent aircraft deployment.

a. Initial MMA skills training for Fleet personnel will be provided at the Fleet Replacement Squadron (FRS) Training Center at NAS Jacksonville.

b. Initial Operational Capability (IOC) will be evaluated using a Fleet squadron at NAS Jacksonville. The IOC squadron is defined as the first squadron fully manned, trained, and ready to deploy.

c. Follow-on operational training will be established at each Main Operating Base (MOB) for the Fleet MMA squadrons, and NAS Jacksonville will be the first MOB.

d. There will be a seven to eight-year overlap of MMA and P-3 training and support requirements at NAS Jacksonville.

e. A Performance Based Logistics contract will be used to provide full Contractor Logistic Support (CLS) for aircraft maintenance, Support Equipment (SE) management and repair, and Supply Chain Management (SCM).

f. The Navy will be required to provide the necessary facilities, infrastructure, and furnishings to support training, maintenance, SE, and SCM concepts established for MMA.

1.4 Milestones

The following list identifies milestones associated with the aircraft/personnel arrival dates, facilities requirements, and actions needed to support MMA transition.

a. Development of the NAS Brunswick Site Plan based on MMA requirements.

b. Development of documentation (DD Form 1391s, etc.) to support funding of the required new construction and modifications to support the Site Plan. The documentation to support the initial requirements should be started in Fiscal Year (FY) 20XX.

c. Operational follow-on training facilities, infrastructure, and furnishings will be required in FYXX to facilitate equipment installation and testing in order to support the first class in FYXX. (See Attachment A for details)

Note

The full compliment of trainers and approximately 9 support personnel are scheduled to be in place at NAS Brunswick by FYXX (See Table 2-1, Training CMS personnel).

d. Hangar spaces, ramp areas, and maintenance spaces will be required to provide adequate weather protection for aircraft and maintenance personnel in order to support the first squadron of six aircraft with support personnel arriving in FYXX. Transition of the second and subsequent squadrons will be dependent on the production and delivery schedule of the aircraft.

Note

The full compliment of XX aircraft and approximately 124 support personnel are scheduled to be in place at NAS Brunswick by FYXX (See Table 1-1, Projected Aircraft and Personnel Schedule).

1.5 Proposed Site Plan

1.5.1 To Be Determined

Note:

Figures 1-1, 1-2, and 1-3 reflect NAS Brunswick as it is. These figures will be updated to reflect changes contained in the proposed Site Plan and DD Form 1391s upon approval.

Table 1-1

Projected Aircraft and Support Personnel by Year

Fiscal Year	FYXX
Number of Aircraft	12
Billet Title	
Site Manager	1
Admin Assist	1
Stores Mgr	1
Storekeeper LD	3
Storekeeper A	4
Storekeeper B	4
Receiving QA	2
Logs/Records	2
Safety/HAZMAT	2
Tool Control	3
SE Manager	2
SE Admin	2
SE Technician LD	2
SE Technician A	4
SE Technician B	4
Instructor (Training/Records)	2
Maintenance Manager	1
Maintenance Planning	4
Admin Assist	1
Field Service Rep	3
Shift Supervisors	3
A/C Technician LD	3
A/C Technician A	18
A/C Technician B	20
AvEquip Technician	12
Line Division	8
Supervisor (Det)	2
Maintenance Control (Det)	2
A/C Technician A (Det)	7
A/C Technician B (Det)	7
Admin (Det)	2
Line Division (Det)	4

Total	136

2. TRAINING FACILITIES

Table 2-1

Training CMS

Training Facilities at NAS Brunswick	
	Operational
Training Program Management	
Librarian	
Maint/Doc - HAZ MAT	
PTS Device Tech	2.0
MTS Device Tech	0.0
Computer Tech	0.5
Network Tech	0.5
Supply Support	
Configuration Management	
CLS Maintenance Instructors	0.0
OFT/TOFT Operators	4.0
Courseware Support	0.0
Security	2.0
Total	**9**

2.1 171 35 Operational Trainer Facilities

Functional Requirements: The Operational Trainer Facility will accommodate one OFT, one TOFT, and two WTTs.

Training facilities will also include space for classrooms, training devices, support equipment, tools, supplies, CBT stations, internal and external network intercommunication equipment,

training media storage, CMS offices, student study rooms, instructor offices, management and briefing areas, and communication closets. The Operational Training Facility must be constructed to the Secret level with a SCIF included within the building.

Evaluation: The reduction of on-aircraft training in the MMA increases the need for a separate operational trainer facility At NAS Brunswick.

The facilities, infrastructure, and furnishings to accommodate the training requirements of the MOB training system installation will be required in FYXX to support the first squadron Training and Readiness requirements in FYXX. The MOB operational training facility is expected to be approximately 19,147 square feet

Recommended Corrective Action: The operational squadrons require a separate training system at NAS Brunswick. (Table 2-1 provides the projected personnel required to support the Operational Training Facility)

3. OPERATIONAL FACILITIES

3.1 Operational Facilities Composition

This section addresses the functional requirements, evaluations, and recommended actions for the operational facilities required to support the MMA.

3.2 Airfield Pavement Criteria

The strength of pavements required at an airfield is determined by the maximum gross weight of the aircraft it must support. Data for airfield pavement design criteria peculiar to the MMA includes aircraft gear configuration, number of wheels, wheel spacing, tire size, and inflation pressures (See Figure 3-1). The airfield pavement criteria for the MMA landing on rigid and flexible pavement (specifically, the Aircraft Classification Numbers (ACNs)) are illustrated in Figures 3-2 and 3-3. The Pavement Classification and Pavement Index Numbers (PCNs/PCIs) are contained in Table 3-1 and Figure 3-4.

Table 3-1

Runway PCN Values

STATION	EFD	RUNWAY	RUNWAY PCN	LENGTH (ft)	WIDTH (ft)
Brunswick					
Brunswick					

Design	SDD Proposal	Proposed New
Max Taxi	184,700	188,200
Max Take Off	184,200	187,700
Max Design Landing	146,300	149,800
Max Zero Fuel	138,300	141,800

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MAXIMUM DESIGN TAXI WEIGHT	LB	184,700
MAXIMUM DESIGN TAKE OFF	LB	184,200
MAXIMUM DESIGN LANDING WEIGHT	LB	154,600
NOSE GEAR TIRE SIZE	IN.	27X7.7-15 12 PR
NOSE GEAR TIRE PRESSURE	PSI	185
MAIN GEAR TIRE SIZE	IN	H44.5 X16.5 – 21 28 PR
MAIN GEAR TIRE PRESSURE	PSI	204

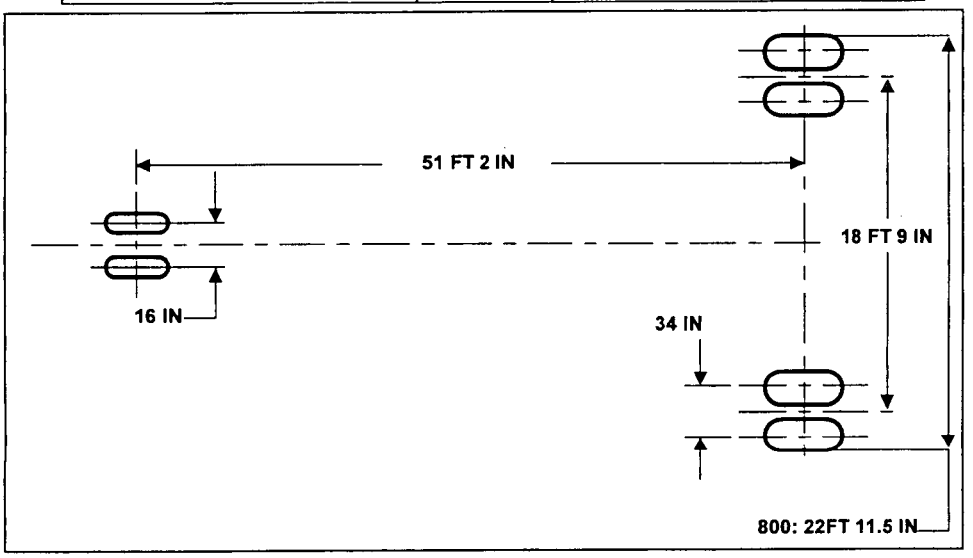

Figure 3-1 Maximum Weights*, Tire Size, and Landing Gear Footprint

*Please Note: New maximum weights have been proposed. (See Table 3-X

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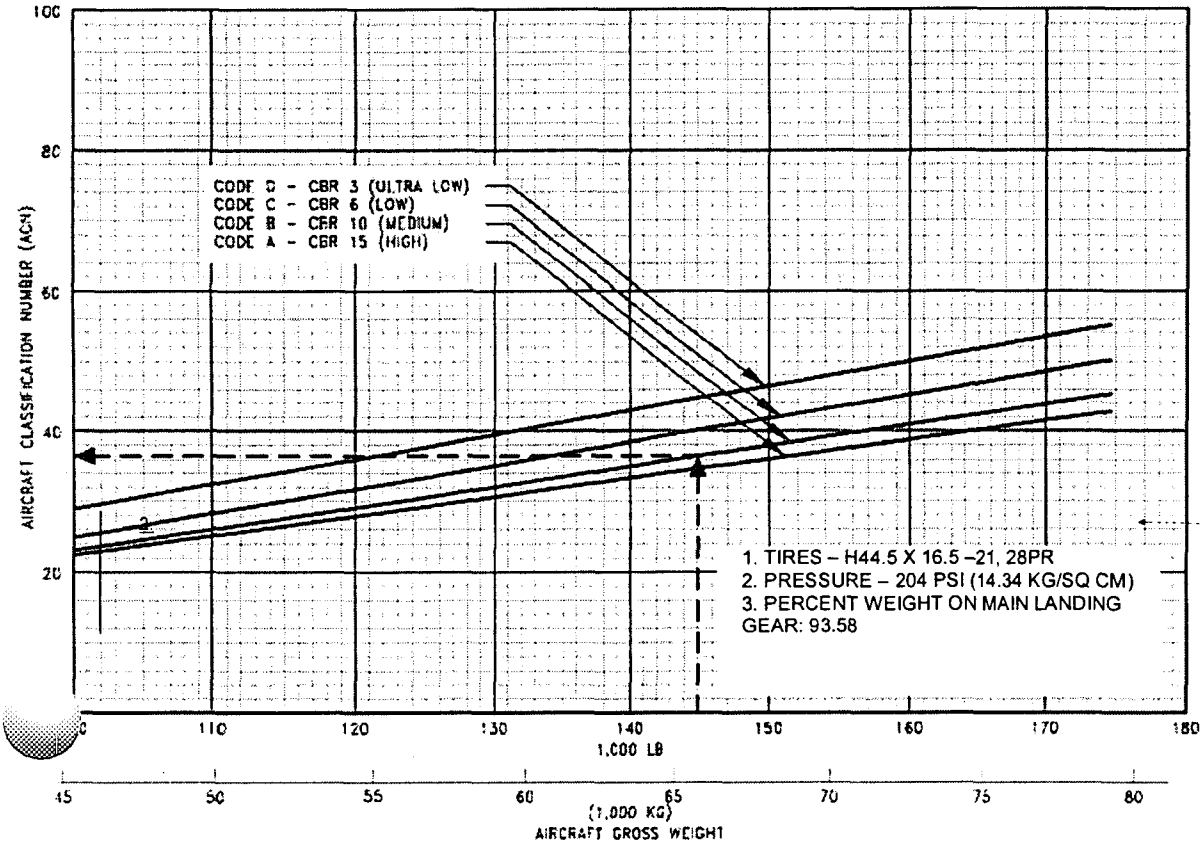

Figure 3-2 ACNs for Flexible Pavement

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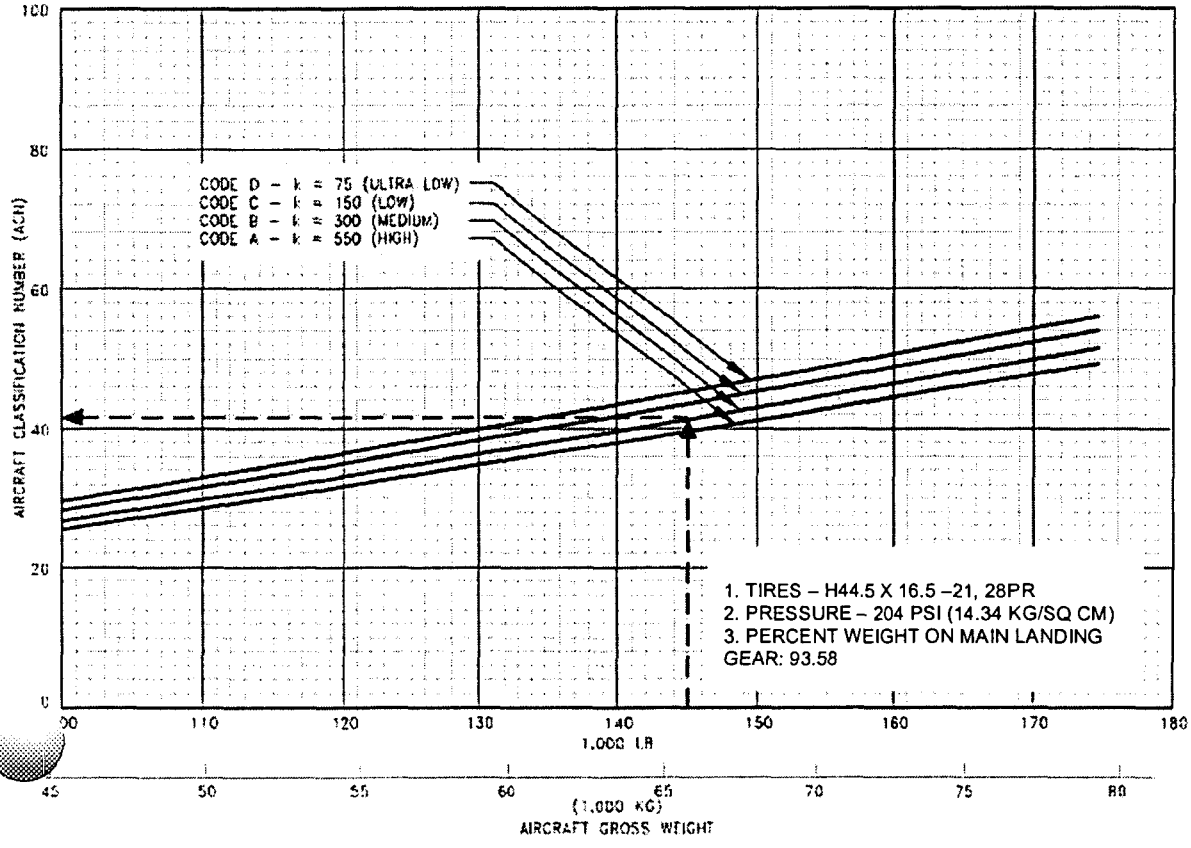


Figure 3-3 ACNs for Rigid Pavement

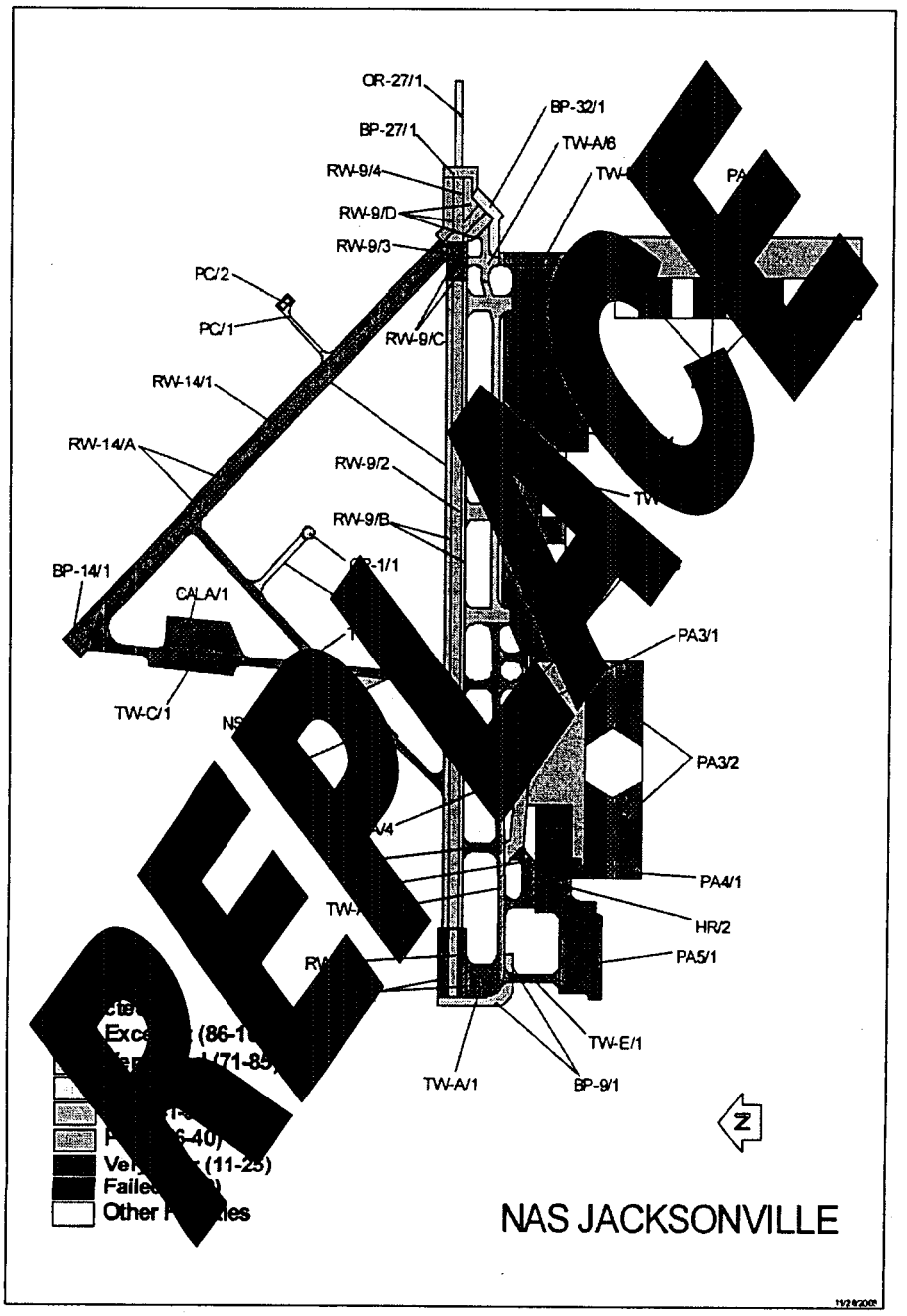


Figure 3-4 PCI Values (Dec 2004)

3.3 111 10 Runway/Fixed Wing

Functional Requirements: Runways are paved surfaces for aircraft takeoff and landing. Traffic density, airfield mission, operational procedures, and local environmental factors determine an airfield's required number of runways. Runway orientation is determined by analyzing wind data, terrain, generated noise levels, and local development planning. See Naval Facilities Engineering Command (NAVFAC) DM-21.1 for wind rose analysis and design criteria.

Evaluation: **NEED NEW DATA FOR Brunswick** General airfield information is shown in Figures 1-1 and 1-2. The ACNs for the MMA takeoff and landing on flexible and rigid pavement are shown in Figures 3-2 and 3-3. The PCNs and PCIs are contained in Table 3-1 and Figure 3-4.

Recommended Corrective Action: **NEED NEW DATA FOR Brunswick** should continue with a suitable maintenance and repair program to maintain appropriate PCN and PCI ratings for runways.

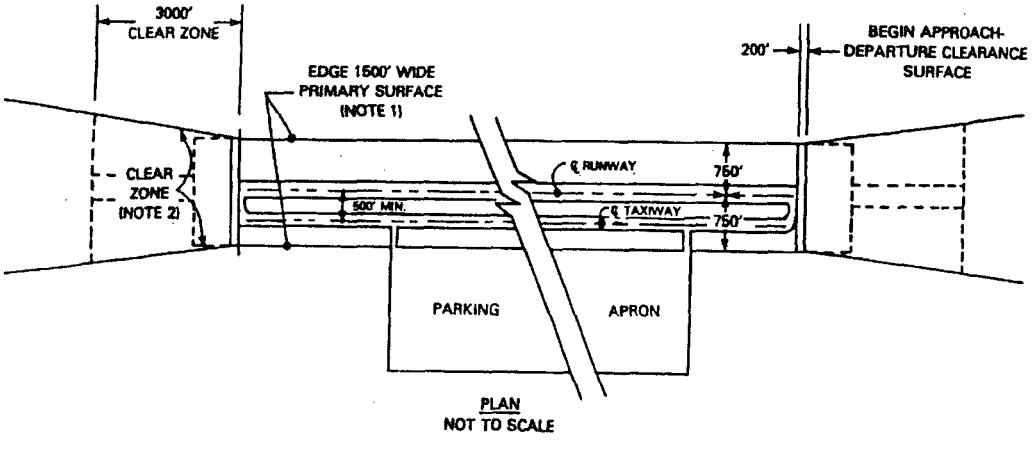


Figure 3-5 Class B Runway – Typical Layout

3.4 112 10 Taxiway

Functional Requirements: Taxiways should be located to provide a smooth flow of aircraft traffic

to and from runways and service and parking areas. Criteria specified in NAVFAC P-80 are sufficient to meet the requirements of the aircraft.

Evaluation: **NEED NEW DATA FOR Brunswick** The ACNs for the MMA on flexible and rigid pavement are shown in Figures X-X and X-X. The PCNs and PCIs are contained in Figure X-X.

Recommended Corrective Action: Continue with a suitable maintenance and repair program to maintain appropriate PCN and PCI ratings for taxiways.

3.5 113 20 Aircraft Parking Apron

Functional Requirements: Aircraft parking aprons consist of paved areas in close proximity to maintenance hangars to provide spaces, tie down points, line maintenance, loading, unloading, and servicing of aircraft in addition to providing parking space. There is no standard size or apron configuration. The size is based on the type and number of aircraft to be parked, the requirement for squadron integrity, and 45 versus 90 degree parking. The area required includes parking space, wing-tip separation between aircraft, and interior/peripheral taxi lanes. Aprons used for ordnance handling require special siting considerations. (See category code 116 56)

Evaluation: Figures 3-6a and 3-6b illustrate possible apron parking solutions and the required dimensions.

Recommended Corrective Action: Utilizing the projected aircraft arrival information provided in Table 1-1, the SER, and existing MILCON projects, a comprehensive aircraft parking layout should be developed based upon apron requirements for existing and projected aircraft. Landing gear layout, tire pressures, and size data is provided in Figure 3-1. The Site Plan should allow for tie downs in areas that are not peripheral taxi lanes to maximize apron flexibility. Consideration should also be given to adding tie down anchors to the apron in front of Building 30.

Note

The aircraft wing is being redesigned to remove the winglets. This redesign will

result in the wingspan of the aircraft being increased; the exact dimensions are unknown at this time.

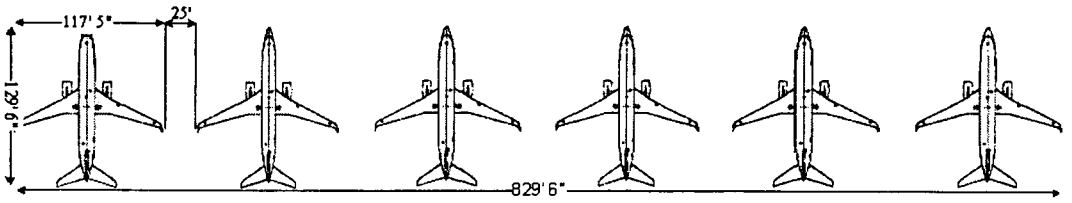


Figure 3-6a Requirement in feet for 6 parked MMA

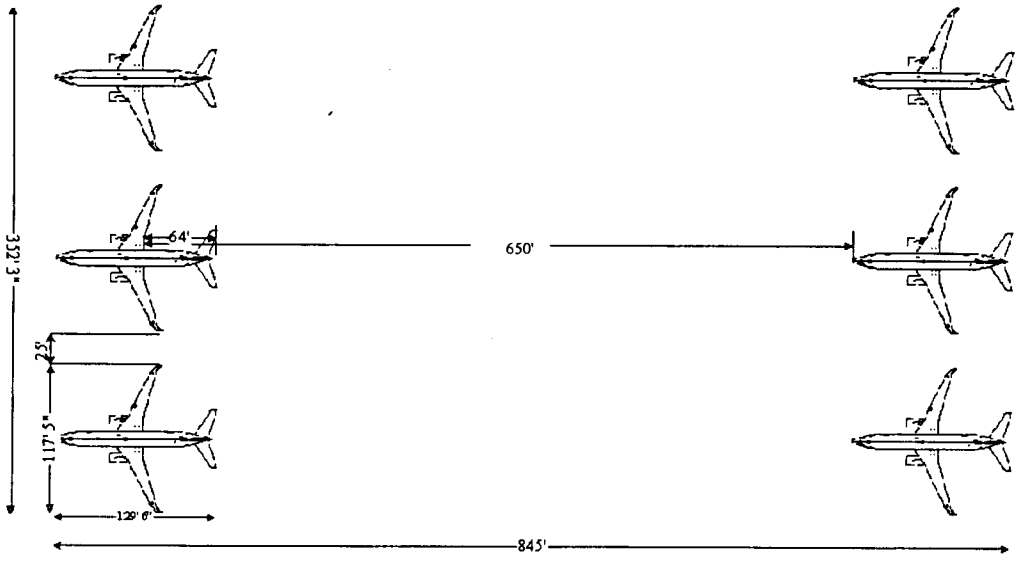


Figure 3-6b Estimated separation to keep aircraft outside the 35 MPH exhaust velocity contour at breakaway power

Figure 3-6 Notional Parking Arrangements

3.6 116 10 Aircraft Washrack Pavement

Functional Requirements: Aircraft washracks are provided at all air installations for cleaning of aircraft in conjunction with periodic maintenance. A minimum of one washrack is required at each NAS, Naval Air Facility, and equivalent Marine Corps facilities. The total number of washracks required at an installation depends on numbers and types of on-board aircraft.

Evaluation Recommended Corrective Action: Evaluate the existing washrack and overhead structure dimensions to ensure compatibility with the aircraft.

Note

The aircraft wing is being redesigned to remove the winglets. This redesign will result in the wingspan of the aircraft being increased; the exact dimensions are unknown at this time.

3.7 116 20 Aircraft Compass Calibration Pad

Functional Requirements: An aircraft compass calibration pad is a paved area in a magnetically quiet zone where the compass in the aircraft is calibrated. There are two types of calibration pads.

- Type I is used with the magnetic compass calibration set
- Type II includes a compass rose and turntable and may be used with or without the compass calibration set

Either pad type will only handle one aircraft at a time. A minimum of one pad is provided at each station. Access to the calibration pad is oriented to facilitate aircraft entering the pad facing magnetic north. Each pad also requires a target placed at a known but arbitrary bearing at a distance of approximately one-half mile from the pad and visible from both the aircraft and the compass calibration set.

Evaluation: (See Figure 3-7)

Recommended Corrective Action: The size of the compass calibration pad must be reviewed to ascertain what required actions are necessary to accommodate MMA.

3.8 116 35 Arming and De-arming Pad

Functional Requirements: This arming and de-arming pad provides a paved area for activating or deactivating weapons systems on-board aircraft. It is utilized at all Navy and Marine Corps air installations where gunnery, rocketry, and/or missile firing are conducted. The number of pads at an installation depends upon the demand at that installation. The pads are sited at either end of the primary runway and, if additional pads are required, at either end of the crosswind runways. Aircraft utilizing the pad normally park parallel to the runway headed in the direction providing the maximum length of undeveloped space along the extended longitudinal centerline of the aircraft. In no case is arming or de-arming of propelled ordnance allowed when the aircraft is facing inhabited areas on or near the air installation. For design criteria, see NAVFAC DM-21. A waiver to airspace clearance criteria is not required when the arming and de-arming pad is sited as shown in DM-21.

Evaluation:

Recommended Corrective Action: An aircraft-parking layout is required in order to determine the suitability of the existing arming and de-arming pad. The pad is serving a variety of carrier-based and patrol type aircraft. Consideration should be given to adding additional tie down anchors to the apron should the parking plan warrant. (See Figure 3-7)

3.9 116 42 Blast Protective Pavement

Functional Requirements: Blast protective pavement provides blast erosion protection for the areas adjacent to the ends of the runways, arming and de-arming pads, and aircraft engine power check pads. These areas are subject to the repetitive high velocity and temperature erosion effects of jet engine exhaust wakes.

Evaluation: The MMA has a relatively low temperature exhaust. However, the velocity wake is very large.

Recommended Correction: Testing during the SDD phase should verify the blast wake, and the

impact on pavements should be determined at Patuxent River NAS.

3.10 116 45 Line Vehicle Parking

Functional Requirements: Line vehicle parking spaces contiguous to taxiway and parking aprons are allocated to mobile equipment assigned for flight line use. Parking areas shall be selected to permit optimum efficiency in the use of equipment (for example, squadron vehicles will normally be assigned space close to the squadron maintenance hangar) and to conform to lateral safety clearances for existing and projected airfield pavements. Where weather requires and the clearances permit, shelter for line vehicles may be provided.

Evaluation: Specific types and numbers of line vehicles required by the CLS contractor are currently unknown. Because of the non-traditional maintenance concept for this aircraft, the vehicles requiring this parking will be controlled and maintained by the CLS contractor. This requires a dedicated space as close as possible to the aircraft line and CLS contractor maintenance personnel.

Recommended Corrective Actions: Type and quantity of aircraft line vehicles should be determined during SDD. Line vehicle parking should be identified in the Site Plan.

3.11 116 56 Combat Aircraft Ordnance Loading Area

Functional Requirements: The combat aircraft ordnance loading area is primarily an apron where explosives are loaded/off-loaded from combat aircraft departing and/or returning from weapons training flights. This area is required when space is not available on the parking apron for loading mass detonating ordnance that meet the explosive quantity-distance requirements specified in Naval Sea Systems Command (NAVSEA) OP-5, Volume I (Ammunition and Explosives Ashore-Safety Regulations for Handling, Storing, Production, Renovation, and Shipping). The weapons are not armed on this apron; see Category Code 115 35, Arming and De-arming Pad Policy. Due to ordnance handling taking place on this apron, its location with respect to other facilities shall be determined using the quantity-distance requirements and explosive prohibited areas specified in NAVSEA OP-5, Volume I. The apron shall be separated from any inhabited building by the inhabited building distance based on the total quantity of

explosives (Net Explosive Weight) to be handled on the apron at one time. In addition, the airfield safety clearances specified in NAVFAC P-80.3, Airfield Safety Clearances apply and:

- The apron must be outside the runway primary surface
- Parked aircraft shall not penetrate any transitional surface
- No objects shall be sited within 100 feet of the edge of this apron

Evaluation: The combat aircraft ordnance loading area has taxi lines and tie down points to accommodate five P-3 Aircraft. The present configuration will require a review to ascertain the required actions for support of the MMA. (See Figure 3-7)

Recommended Corrective Action: Any modification necessary to support ordnance loading should be identified in the Site Plan.

3.12 116 60 Fire and Rescue Vehicle Alert Pad

Functional Requirements: This facility provides a parking area for an Immediate Response Alert Vehicle. The purpose of the Immediate Response Alert is to:

- Observe all landings and take-offs
- Respond immediately to any aircraft accident
- Provide timely rescue of personnel involved in emergencies

The pad should be large enough to park one appropriately sized fire truck and should be located no closer than 150 feet from the runway edge. The pad should not include a protective shelter or any other structure, which would violate airfield safety clearance criteria, for guidance see NAVFAC P-80.3, Airfield Safety Clearances. The pad should be connected to the runway by a 16-foot-wide access roadway. If there is no access to the alert pad other than from the runway, the parking space should be widened as required to allow the truck sufficient space to turn around.

Evaluation:

Recommended Corrective Action:

3.13 121 20 Aircraft Truck Fueling Facility

Functional Requirements: An aircraft truck fueling facility is used to transfer fuel to refuel trucks for subsequent fueling of the aircraft. The fueling equipment is located on concrete islands that are designed to provide fuel from one side only. Where more than one island (one fueling outlet per island) is required, they shall be arranged parallel to each other with 15 feet between adjacent sides. The pavement between islands is sloped to a drain or catch basin, which is connected to a containment area in case of a fuel spill. See NAVFAC P-272, Drawing 14039987 for a sketch of a typical refuel fill stand and NAVFAC DM-22 for design criteria.

Evaluation:

Recommended Corrective Action: NAS Brunswick evaluate the capacity of their refueling stand to support the additional volume required by MMA and propose any necessary modifications to the Site Plan.

3.14 121 30 Aircraft Defueling Facility

Functional Requirements: The Aircraft Defueling Facility is used to facilitate aircraft maintenance and defuel aircraft of contaminated fuel. Normally, a designated defuel truck is used to provide defueling services.

Evaluation:

Recommended Corrective Action: NAS Brunswick will evaluate the capacity of their defueling stand to support the additional volume required by MMA and propose any necessary modification in the Site Plan.

3.15 123 10 Filling Station

Functional Requirements: The Filling Station is required to fuel equipment and support vehicles. The Filling Station includes fuel dispensing pumps, access roads, area lighting, shelter, and fire protection. The facility should be located in the vicinity of the aircraft Ground Support

Equipment (GSE) shop.

Evaluation:

Recommended Corrective Action: The contractor will require station accounts to purchase fuel for contractor owned vehicles (e.g., trucks, vans, lift trucks, etc.), and miscellaneous station services.

3.16 124 30 Aircraft Ready Fuel Storage

Functional Requirements: Aircraft ready fuel storage tanks are required to provide an operating and reserve supply of jet fuel. At air stations, all aviation fuel storage is considered to be aircraft ready fuel. A ten-day supply is required to be stored at air stations within the continental U.S.

Evaluation:

Recommended Corrective Action: NAS Brunswick evaluate the capacity of their fuel storage in order to support the additional volume required by MMA and identify any modifications to the Site Plan.

3.17 149 50 Blast Deflector Fence

Functional Requirements: Blast deflector fences are structures that direct the exhaust from jet engines upward. They are used in congested, parking, and maintenance areas (aircraft power check pad) to protect personnel, equipment, and structures from the blast effect of jet engine exhaust.

Evaluation:

Recommended Corrective Action:

4. ORGANIZATIONAL MAINTENANCE FACILITIES

4.1 Organizational Maintenance Facilities Composition

This section covers functional requirements, evaluations, and recommended actions for the facilities to support organizational maintenance. Category codes and nomenclatures covered in this section are listed below.

211 05 Maintenance Hangar – 0H Space

211 06 Maintenance Hangar – 01 Space

211 07 Maintenance Hangar – 02 Space

Maintenance Hangars are required to provide weather-protected shelter for the servicing and repair of Navy aircraft at the organizational level and emergency shelter for operable aircraft. These hangars are to contain a hangar space (OH), crew and equipment space (01), and administrative space (02). Each of these spaces is assigned a separate category code.

4.2 211 05 Maintenance Hangar – OH Space

Functional Requirements: This space is high bay and is used for organizational maintenance of the aircraft in a controlled environment.

The present plan is to stand down a P-3 squadron in FYXX for transition to MMA squadrons.

Evaluation: MMA are larger than the P-3 aircraft (Figures 4-1 and 4-2 provide specific measurements

Note

The aircraft wing is being redesigned to remove the winglets. This redesign will result in the wingspan of the aircraft being increased; the exact dimensions are unknown at this time.

Recommended Corrective Action: Evaluate the hangar requirements and propose modifications and/or new construction necessary to support MMA in the Site Plan.

4.3 211 06 Maintenance Hangar – O1 Space

Functional Requirements: This space is generally behind the OH space and is at ground level. The organizational maintenance shops and production control are typically in these spaces.

The present concept has the CLS maintenance team resident at the Air Station and not the squadron. The CLS maintenance team will support all squadron aircraft and could be accomplished from a centrally located facility. The present plan for the CLS team for FYXX (See Table 1-1)

Evaluation:

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, pages C-7 and C-8) to determine maintenance team facilities requirements. NAS Brunswick determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

4.4 211 07 Maintenance Hangar – O2 Space

Functional Requirements: This space provides administrative offices for the squadron.

Evaluation:

Recommended Corrective Action: Any modification to existing spaces and/or new construction necessary to support these requirements should be provided in the Site Plan.

4.5 CLS Administration

Functional Requirements: This space would provide for overall CLS Site Management. It would provide space for Site Managers, Spares Managers, overall data storage, and general administration services.

Evaluation: This is a new requirement derived from the CLS support concept.

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, page C-7) to determine administration facilities requirements. NAS Brunswick determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

5. INTERMEDIATE MAINTENANCE FACILITIES

5.1 Intermediate Maintenance Facilities Composition

This section addresses the functional requirements, evaluations, and recommended actions for intermediate maintenance facilities at NAS Brunswick. It is anticipated that minimal intermediate maintenance facilities support will be required. The overall support concept will be evaluated during SDD.

It was determined that the following categories' impact will be minimal by the introduction of MMA at NAS Brunswick.

211 01 Aircraft Acoustical Enclosure
211 08 Airframe Shop
Hydraulics/Pneumatics Shop
Welding Shop
Structures Shop
Fiberglass/Plastics/Composites Shop
Machine Shop
Cleaning Shop
Nondestructive Inspection (NDI) Shop
Paint Shop
Tire and Wheel Shop
211 21 Engine Maintenance Shop
Compressor Power Unit Test Stand
211 45 Avionics Shop
116 65 Tactical Support Van Pad
211 55 Aviation Armament Support Equipment Holding Shed

211 81 Engine Test Cell

211 89 Power Check Pad without Sound Suppression

218 50 Battery Shop

5.2 211 54 Aviation Armament Shop

Functional Requirements: An aviation armament shop requires space and utilities to support intermediate maintenance of guided missile launchers, bomb racks, and pylons. A storage area and Armament Weapons SE work center also requires space in this shop. MMA will use the same weapons as P-3 aircraft.

Evaluation:

Recommended Corrective Action:

5.3 211 75 Parachute Survival Equipment Shop

Functional Requirements: A parachute and survival equipment shop provides space and utilities required to support inspection, repair, modification, and repacking of parachutes, rafts, and life vests during intermediate maintenance. Space is also provided for testing and repair of oxygen systems as well as aircrew personal equipment.

Evaluation:

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, page C-7) to determine Parachute Survival Equipment and storage space requirements. NAS Brunswick determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

5.4 218 60 Aircraft Ground Support Equipment Shop

Functional Requirements: Intermediate maintenance of aircraft GSE is performed in this shop. Ground support equipment, often referred to as yellow gear, includes such items as tow tractors, trucks, fork lifts, trailers, compressors, power generators, maintenance stands, jacks, and other

GSE that support aircraft operations. The GSE shop requirement is based on the average number of on-board aircraft.

Evaluation:

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, pages C-8 and C-9) to determine GSE shop requirements. NAS Brunswick determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

Note:

Although the CLS team will maintain and operate the GSE, NAS Brunswick will retain the responsibility of operator licensing In Accordance With (IAW) local regulations and policies.

5.5 218 61 Ground Support Equipment Holding Shed

Functional Requirements: The GSE Holding Shed provides a secure and sheltered storage area for GSE awaiting either repair or issue.

Evaluation:

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, page C-8) to determine GSE holding shed requirements. NAS Brunswick determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

6. SUPPLY FACILITIES

6.1 Supply Facilities Composition

This section provides the functional requirements, evaluations, and recommended actions to support SCM. The MMA program will employ a non-traditional approach to SCM where the

contractor provides for provisioning of spare parts to ensure all procured and stocked spare and repair parts are current with delivered aircraft configurations.

6.2 441 10 General Warehouse Navy

Functional Requirements: A general warehouse provides bulk and bin storage, aisles, receiving, packing, crating, and administrative space. Facilities excluded from this category are all shop stores, ready issue stores, and miscellaneous storage not physically located in a supply department.

Evaluation: Because of the non-traditional approach to SCM, general warehousing and Packaging, Handling, Storage and Transportation (PHS&T) will be controlled and maintained by the CLS team. This requires a dedicated space with controlled access.

Recommended Corrective Action: Recommend use of Boeing's FRD (Attachment A, page C-9) to determine warehousing and PHS&T requirements. NAS Brunswick determine modifications to existing spaces and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

6.3 441 30 Hazardous and Flammables Storehouse

Functional Requirements: The storehouse is similar to a general warehouse in most respects except provisions are made to prevent and remove, through proper ventilation, evaporated and gaseous fumes IAW National Fire Prevention Association (NFPA) Standard No. 30. Materials normally considered for storage in this category include paints, certain package petroleum, oil, lubricants, chemicals, acids, corrosive liquids, oxidizing materials, and other similar hazardous and/or flammable materials.

Evaluation: Supply Support will require hazardous and flammables storage capability in the warehouse area. Each squadron will also require a similar capability adjacent to the hangar spaces area.

Recommended Corrective Action: NAS Brunswick determine modifications to existing spaces

and/or new construction necessary to support these requirements. Results should be provided in the Site Plan.

EXECUTIVE SUMMARY

The Department of Defense recommendation to realign elements at Naval Air Station Brunswick, specifically to remove the P-3 and C-130 aircraft squadrons and their supporting personnel, results from a ***failure to properly apply the Base Closure and Realignment Criteria.***

The DOD failed to properly consider NASB's Military Valve, including:

Criteria 1: *The current and future mission capabilities and the impact on operational readiness of the total force of the Department of Defense, including the impact on joint warfighting, training, and readiness.*

- Recommendation failed to recognize the following *essential and unique mission capabilities* of NAS Brunswick:
  - The only remaining fully operational active-duty airfield in the northeastern United States.
  - Adjacent to all North Atlantic sea lanes.
  - Location permits live weapons missions without overland transit.
  - Fully-secured perimeter for force protection.
  - Dual runways for flexibility and resilience.
  - No encroachment issues.
  - Unmanned Aerial Vehicle (UAV) capable airfield
- Failed to recognize the unique characteristic of being the only airfield in the Fleet capable today of basing the Multi-Mission Maritime Aircraft(MMA).
- Failed to consider adding assets in support of NORTHCOM'S Homeland Defense mission or other DoD missions.
- Failed to consider the operation and deployment of Unmanned Aerial Vehicles from NAS Brunswick in support of both National Defense and Homeland Defense.

Criteria 2: *The availability and condition of land, facilities, and associated airspace (including training areas suitable for maneuver by ground, naval, or air forces throughout a diversity of climate and terrain areas and staging areas for the use of the armed Forces in homeland defense missions) at both existing and potential receiving locations.*

- Recommendation to realign failed to recognize NAS Brunswick's advantages under this criterion:
  - NASB has new aviation and quality-of-life facilities including the following constructed or reconstructed within the last five years:
    - All runways, ramps, taxiways
    - New tower (2005)
    - MMA/P-3 Hangar
    - Enlisted on base housing
    - Family housing
  - Immediate access to over 63,000 square miles of unencumbered airspace for training and operations.
  - Completely **free of encroachment** or other issues restricting its operations or growth.
  - Over 1500 acres of available land. Facilities available for use as staging areas for use in homeland defense missions, and as receiving or mobilization locations.
  - New, *NATO-funded* fuel farm and state-of-the-art MPRA command and control facility (Tactical Support Center).
  - Diverse climate for training and operations. Brunswick is a four-seasons location with all the advantages that brings to aircrew and ground personnel training. Winter operations are routine at NASB and the airfield has fewer hours of closure due to weather than any major aviation facility in New England.

Criteria 5: *The extent and timing of potential costs and savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed the costs.*

- Due to over $110M in infrastructure investments at NAS Brunswick over the last ten years, the ***operating costs for the Station are now and will remain extremely low without further MILCON or other investment.*** NAS Brunswick's Base Condition Index (the ratio of the cost of maintenance deficiencies to the current replacement value of the facilities) places it among the top Navy installations in terms of the condition of its infrastructure.
- Failed to consider the costs of building additional Multi-Mission Maritime Aircraft (MMA) facilities at NAS Jacksonville. This will essentially double construction costs to replace an MMA capable hangar that already exists in Brunswick.
- Maritime Patrol and Reconnaissance Operations from NAS Jacksonville in support of surge operations for Homeland Defense missions in the Northeast Sea Lines of Communication (SLOCs) to the United States have been grossly under-estimated. Whether the missions are flown round trip out of NAS Jacksonville or Detachment Operations located at a NAF Brunswick costs will be greatly increased compared to the costs of basing and operating from NAS Brunswick.

- **Summary**: If implemented, DOD's recommendation to realign NAS Brunswick would:

  - Reduce the readiness of the total force to defend the region and the nation
  - Provide marginal or negative savings
  - Inflict catastrophic damage on the community, State, and region
  - Ignore opportunities for expansion of NAS Brunswick's roles and missions to match its tremendous potential as a Joint Forces facility for Homeland Defense and Homeland Security.

CLOSURE APP2 7/26/2005

PURPOSE

The citizens of the Bath-Brunswick region and of Maine have formed the Brunswick Naval Air Station Task Force to provide information that is relevant, accurate, complete and verifiable to the Base Closure and Realignment Commission (BRAC)

NAS Brunswick Closure Rejected by Department of Defense in BRAC 2005

Commander, Fleet Forces Command

"Closure of NAS Brunswick supports operational synergies associated with a single-site P-3/MMA force ***at the unacceptable expense of closing a base offering numerous transformational and maritime Homeland Defense basing opportunities."***

- CFFC input to DON Analysis Group, March 2005

NAS Brunswick Closure Rejected by Department of Defense in BRAC 2005

Chief of Naval Operations -

"This is a military value question more than anything else... We're really keeping a strategic capability in the Northeast. That's what it boils down to."

- ADM Vern Clark
Testimony to BRAC Commission,
May 17, 2005

NAS Brunswick Closure Rejected by Department of Defense in BRAC 2005

Undersecretary for Defense Acquisition, Technology, and Logistics -

"It came to our mind that having a strategic presence near borders in America made sense from a homeland security standpoint, made sense from a strategic surge and a future capability standpoint...."

- The Hon. Michael W. Wynne,
Testimony to BRAC Commission,
July 18, 2005

NAS Brunswick Closure Rejected by Department of Defense in BRAC 2005

Vice Chief of Naval Operations -

"In the later considerations, regarding Brunswick, there was a strategic aspect of Brunswick different from the strategic part that it played during the Cold War, and in this case it dealt with homeland defense and the desire to have access to the maritime domain for both maritime domain awareness, situational awareness, as well as interception capability. And we were evaluating our ability to meet our homeland defense requirements from the maritime domain throughout the East Coast and along the West Coast of the United States, and Brunswick provided us that strategic ability to readily access the maritime environment in the extreme Northeast."

- ADM Robert Willard
Testimony to BRAC Commission,
July 18, 2005

NAS Brunswick Closure was Rejected Due to *Strategic Value and Requirements for Homeland Defense*

Strategic Value reconfirmed immediately after September 11, 2001

Operation *Vigilant Shield*

Ready Alert requirements

Homeland Defense Strategies under formulation

Maritime Defense requirements *certain, but undefined at that time*

NAS Brunswick *Requirements for Homeland Defense*

"Strategy for Homeland Defense and Civil Support" - Department of Defense, June 2005

- "Terrorists or rogue states will attempt multiple, simultaneous mass casualty CBRNE attacks against the US Homeland."

- An attack by terrorists armed with a nuclear device would kill at least 50,000 and as many as 1 million Americans. (CRS Study)

- "The United States must have a concept of operations for the active, layered maritime defense of the US homeland. Such a concept will require naval forces to be responsible to US Northern Command, consistent with maritime mission requirements, and will require that Navy forces be placed under periodic command and control of US Northern Command as appropriate."

NAS Brunswick *Requirements for Homeland Defense*

"Strategy for Homeland Defense and Civil Support"

- Department of Defense, June 2005

Key Objectives

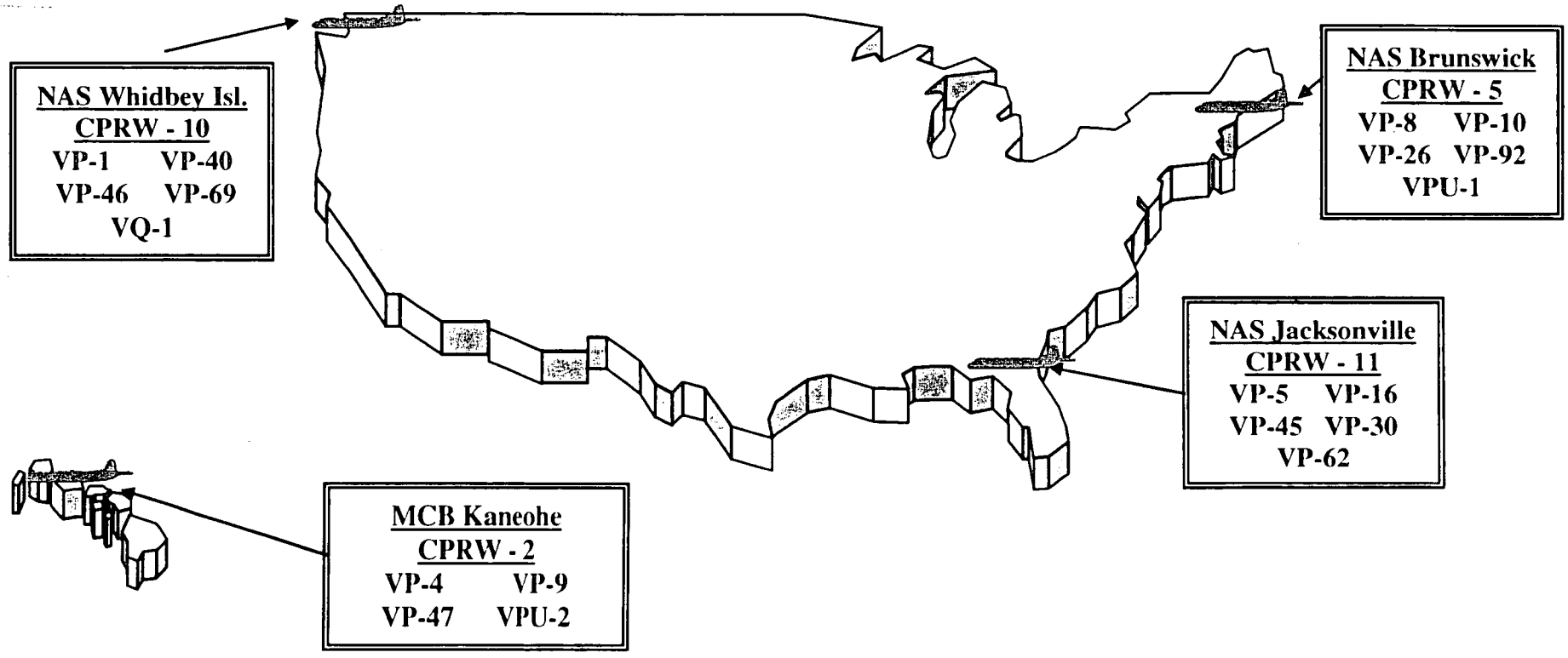
-"Achieve maximum awareness of potential threats"
-"Deter, intercept, and defeat threats at a safe distance"

Core Capabilities

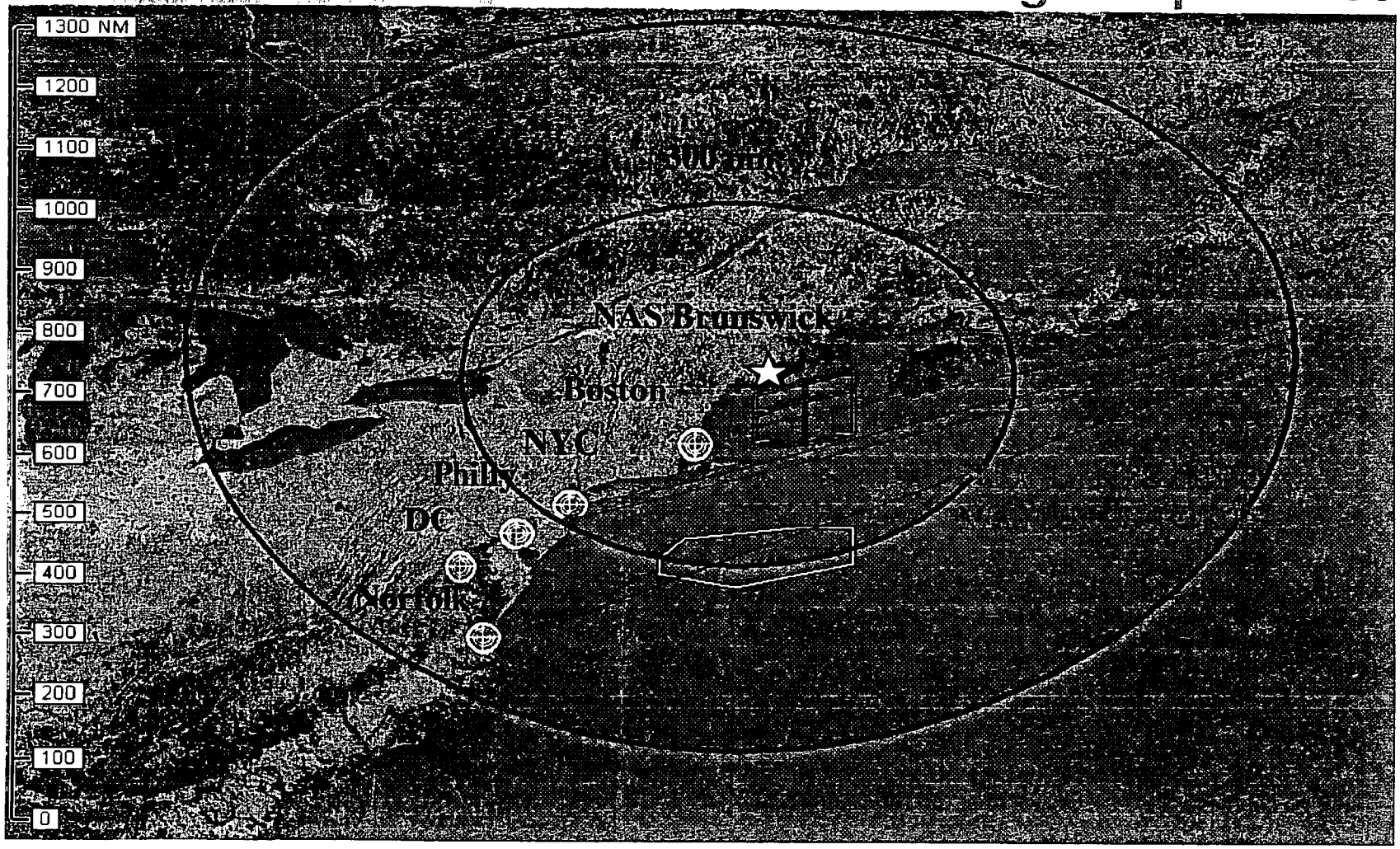
-Intelligence, Surveillance and Reconnaissance Capabilities
-Detection, identification, and tracking of emerging threats in all operational domains

"Timely in response and readily accessible, Homeland Defense and Civil Support missions require a rapid response, *often measured in hours, not days.*"

Maritime Patrol and Reconnaissance Basing for Homeland Defense – *When defending a geographic area, geography matters!*



NAS Brunswick's Strategic Importance



NAS Brunswick – Strategic Value

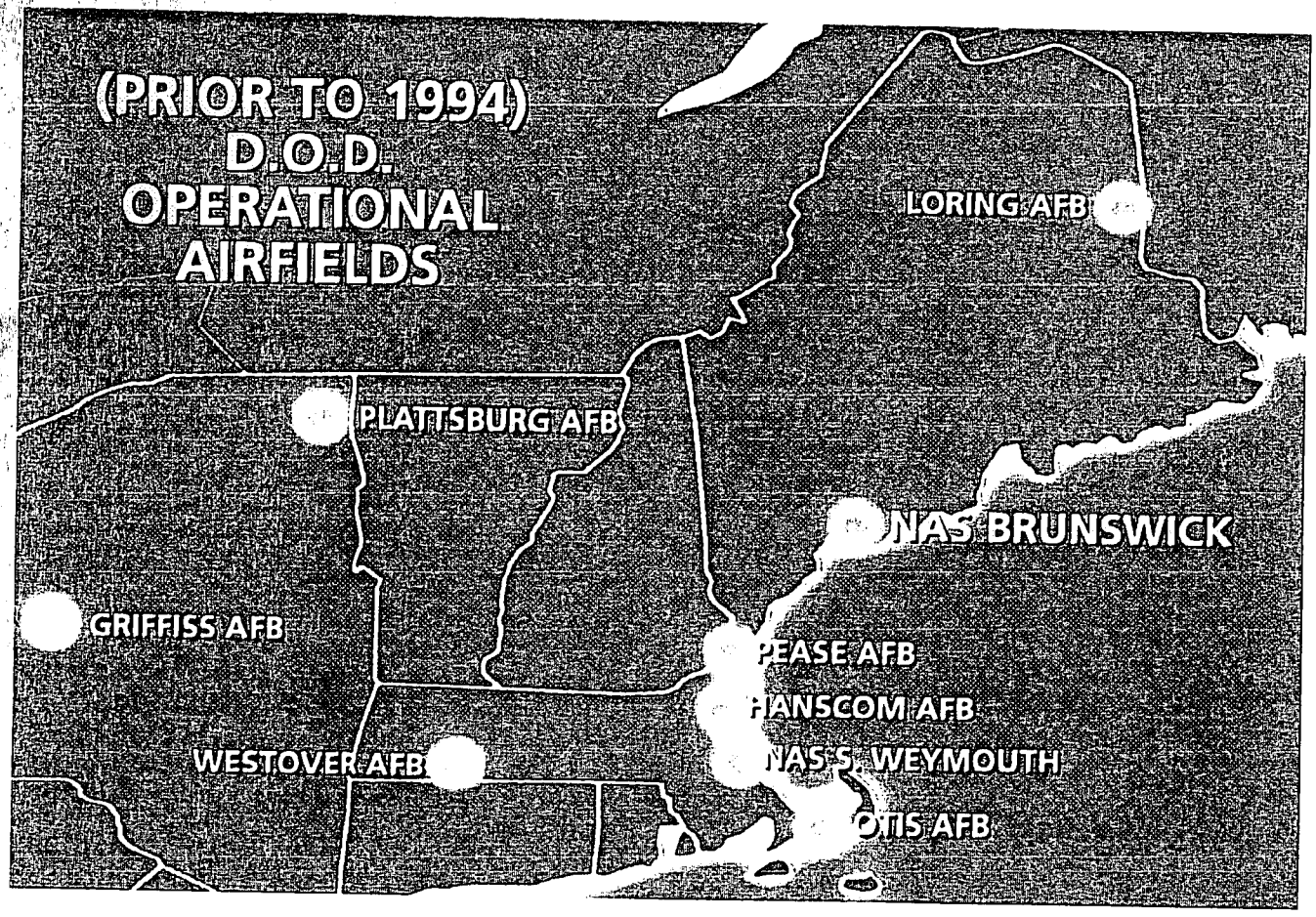
- "The major thrust of the evaluation of operational bases was to retain only that infrastructure necessary to support future force levels while at the same time, not impeding operational flexibility for the future deployment of that force. In that latter context, the Commander-in-Chief, US Atlantic Fleet (CINCLANTFLT) expressed an operational desire to have as fully-capable an air station as possible north of Norfolk with the closest geographic proximity to support operational deployments. Satisfaction of these needs both to further reduce excess capacity and to honor CINCLANTFLT's ***operational imperative*** can be accomplished best by the retention of the most fully capable air station in this geographic area, NAS Brunswick, Maine, in lieu of the reserve air station at South Weymouth."

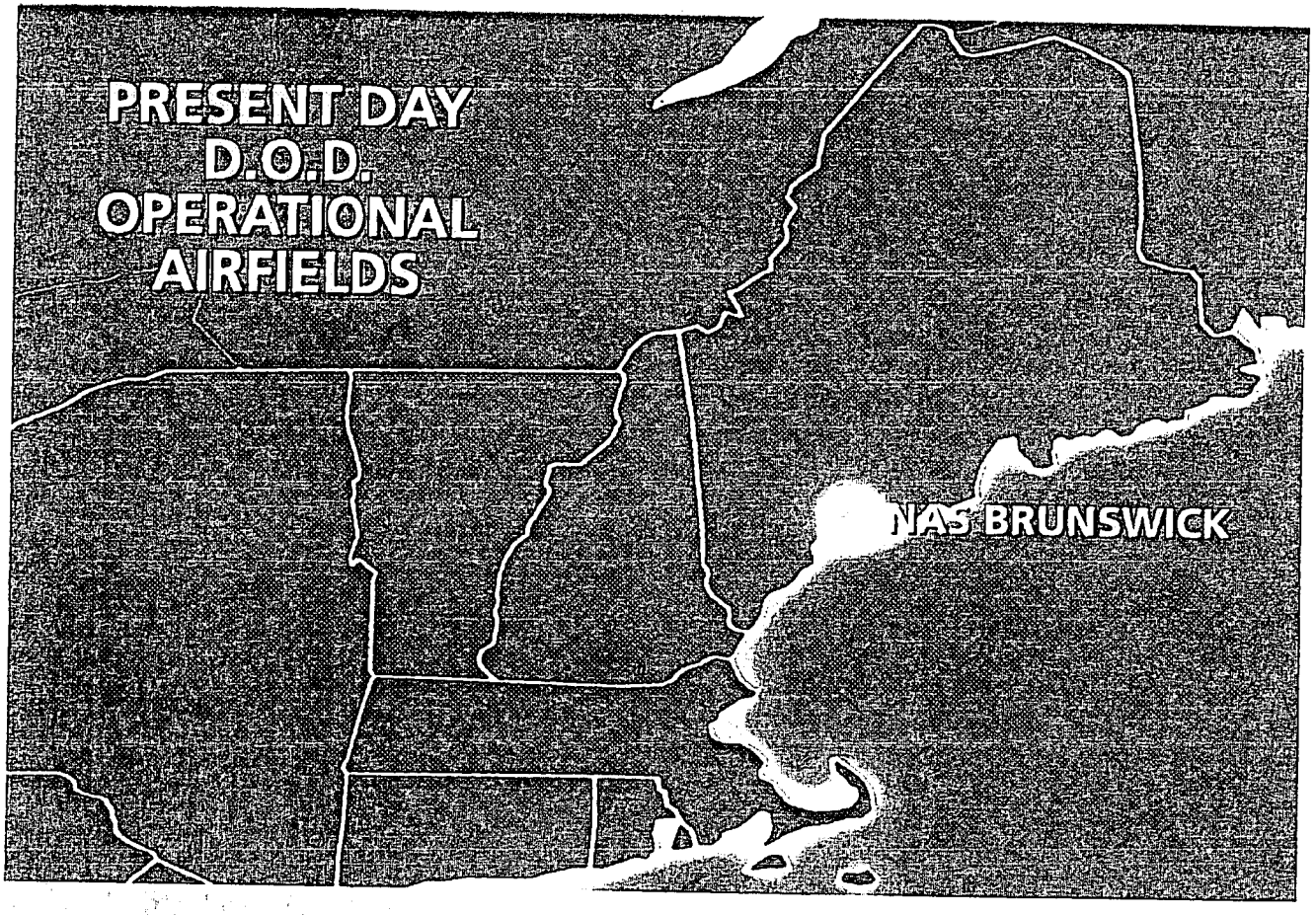
  - BRAC 1995 Final Report

- NORTHCOM's ***operational imperative*** is even more valid in today's post-9/11 world than CINCLANTFLT's was ten years ago

NAS Brunswick in *BRAC 2005*

- NASB was the clear and obvious choice for Commander Fleet Forces Command and DOD to meet their requirements -


(PRIOR TO 1994)
D.O.D.
OPERATIONAL
AIRFIELDS
LORING AFB
PLATTSBURG AFB
NAS BRUNSWICK
GRIFFISS AFB
PEASE AFB
HANSCOM AFB
WESTOVER AFB
NAS S. WEYMOUTH
OTIS AFB


PRESENT DAY
D.O.D.
OPERATIONAL
AIRFIELDS
NAS BRUNSWICK

NAVAL AIR STATION BRUNSWICK
Current Capabilities

- The last remaining fully-capable active duty military airfield protecting the northeastern U.S.
  - -As close to Europe and the North Atlantic Sea lanes as is possible within the U.S.
  - -Its strategic location is critical to carry out the emerging strategy for maritime defense of our homeland
  - -Recognized by NATO with investment in key facilities

- Ideal for MPRA and other operational missions
  - -Dual runways for flexibility and resilience
  - -"Feet wet" at end of runway – optimal for live weapons missions
  - -Outstanding weapons storage and handling capability and capacity
  - -State-of-the-art command and control facilities
  - -Fully secured perimeter for force protection and mission assurance

- Retains capability for surge of other type air assets to the region

- An "all-new" airfield with superb operational facilities and low operating costs

NAS Brunswick | Strategically Positioned for the Future

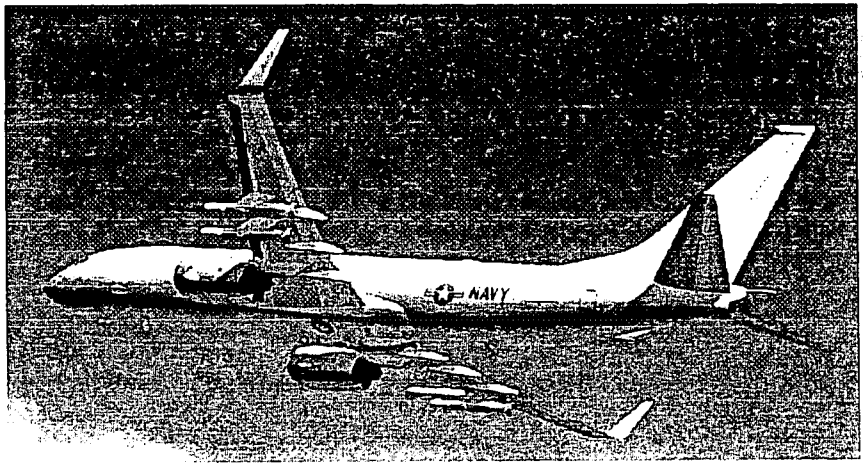
The Modernization of NAS Brunswick

PROJECT	COST (IN MILLIONS)
Permanent Party Quarters	$ 14.0
P3 Operations	3.0
Relocate Gate Entrance	1.4
Dyer's Gate Truck Entrance	1.1
Small Arms Range	.8
Taxiway Repairs	3.4
Hangar 6 (MMA / UAV Capable)	32.2
Housing Phase 2 (126 Homes)	19.1
Transient Quarters	17.7
Tower	9.8
Housing Phase 3 (22 Homes)	5.0
Runway / Apron Repairs	5.9
Total	$113.4

NAVAL AIR STATION BRUNSWICK
Current Capabilities

Multi-mission Maritime Aircraft Basing and Support

- **NAS Brunswick is the *only* Air Station capable *now* of basing the MMA and its supporting Unmanned Aerial Vehicles**



NAVAL AIR STATION BRUNSWICK
Future Capabilities

Tremendous *added value* to DOD would be lost if NASB were to be closed.

- Seamless operations and training for Homeland Defense AND Homeland Security
  Joint Armed Forces Reserve Center funded for NAS Brunswick

- Basing for Reserve units from NAS JRB Willow Grove
  Support and space exist at NASB, but would have to be created at McGuire AFB - **- potential MILCON savings $53.9M.**
  - -Hangar space
  - -C-130 Intermediate maintenance and supply
  - -Naval Reserve support

  Would leverage, rather than discard the Naval Reserve demographic in New England

NAVAL AIR STATION BRUNSWICK
Future Capabilities (cont.)

Tremendous added value to DOD would be lost if NASB were to be closed.

- For AFRES Predator UAV units
  - Dual runways ideal for UAV ops
  - Immediate, unencumbered access to overwater airspace
  - BAMS UAV will come with MMA

NAS Brunswick – Closure Deliberations by USN during BRAC Process

- **Navy BRAC deliberations were founded almost solely on quantitative measures based on eliminating "excess" capacity**
  - **A single methodology for depots, shipyards, air stations, naval bases, training sites**
  - **Founded in a pre- 9/11 mentality**

- ***Capacity analysis alone is inappropriate in determining where operational bases are needed.***
  - **Savings from reduced capacity are meaningless if they result in an operational base not being *where it is needed, when it is needed.***

- **The Navy's overarching determination that single-siting like aircraft completely ignored strategic location and other key military value factors**

- **The Navy analysis also ignored:**
  - **Critical, imminent force structure considerations (MMA)**
  - **Impact on remaining fatigue life of P-3 force**

- **No new or other service missions or gaining scenarios received consideration**

NAS Brunswick – Summary

Closure rejected by Department of Defense in BRAC 2005

- Military *judgment* was applied by the most senior DOD officials in the BRAC process:

- OSD
- Chief of Naval Operations
- Commander, Northern Command
- Commander, Fleet Forces Command

Their determination – *NASB is vital*

This is not 1940 – once lost, the capabilities at NASB could not be recovered or recreated

The determination was made because closing the only remaining facility which can meet strategic needs for the nation would clearly impose an unacceptable risk. The stakes are too high in the post-9/11 world.

DCN: 11596

GOOD MORNING MR. CHAIRMAN, GENTELMEN, I'M HARRY RICH, A RETIRED VP AVIATOR, FORMER VP CO AND COMMANDER OF PATROL WINGS, ATLANTIC FLEET.

THANK YOU FOR COMING AND FOR ALLOWING US TO EXPRESS OUR CONCERNS ABOUT DOD'S PROPOSAL TO REALIGN NAS BRUNSWICK.

OUR ALL-VOLUNTEER TASK FORCE WAS FORMED ABOUT TWO YEARS AGO WHEN IT BECAME CLEAR THAT WE FACED ANOTHER ROUND OF BRAC. OUR INITIAL CONCERN WAS THAT ALL DECISION MAKERS IN THE PROCESS WERE NEW. FROM THE PRESIDENT RIGHT DOWN TO THE CO OF THE AIR STATION. NONE WERE IN PLACE DURING BRAC '95, AND VERY FEW OF THE NEW PEOPLE HAD EVER VISITED NAS BRUNSWICK. SO WE WROTE THE REPORT YOU HAVE IN FRONT OF YOU TO PROVIDE, AS WE SAY IN THE BOOK, RELEVANT, ACCURATE, COMPLETE AND ..VERIFIABLE INFORMATION TO ALL CONCERNED IN THE BRAC PROCESS.

WE QUICKLY CONCLUDED THAT NAS BRUNSWICK'S GREATEST STRENGTH WAS IT'S "MILITARY VALUE" AND "STRATEGIC LOCATION" IS ONE OF THE KEY COMPONENTS OF THAT VALUE. THIS WAS CLEARLY RECOGNIZED BY DOD IN THEIR JUSTIFICATION FOR THE PROPOSED REALIGNMENT. THEY STATED "THIS RECOMMENDATION RETAINS AN OPERATIONAL AIR FIELD IN THE NORTHEAST ... AND MAINTAINS STRATEGIC FLEXIBILITY."

ONE OF THE NAVY'S STATED GOALS IN THE CURRENT BRAC ROUND WAS "TO OPTIMIZE DEFENSIVE POSTURE". BY LOCATING ~~SIX VP~~ ALL SIX ATLANTIC FLEET VP

SQUADRONS IN JAX AND NONE IN BRUNSWICK, AS PROPOSED, CLEARLY THEY WILL HAVE ACHIEVED THE EXACT OPPOSITE.

DURING BRAC '95, CINCLANT FLT (ADM FLANAGAN) TOLD THE COMMISSION HE NEEDED A "FULLY CAPABLE, OPERATIONAL AIR STATION NORTH OF NORFOLK, VA." TO PERFORM HIS MISSION. HIS MISSION WAS "DEFENSE OF THE ATLANTIC" AND SOVIET SUBMARINES WERE THE PRINCIPLE THREAT. THAT THREAT HAS VIRTUALLY DISAPPEARED, BUT THE TERRORIST THREAT THAT REPLACED IT IS FAR MORE COMPLEX AND PROBABLY MORE DANGEROUS.

A STRATEGY TO PROTECT OUR EXTENSIVE COASTAL BORDERS IS KEY TO HOMELAND DEFENSE AND IT'S JUST EVOLVING.

MR. CHAIRMAN, I SUBMIT THAT A "FULLY CAPABLE, OPERATIONAL AIR STATION" IN THE N.E., WITH PERMANENTLY ASSIGNED LONG RANGE MARITIME PATROL AIRCRAFT IS CRITICAL TO THE SUCCESS OF THIS STRATEGY AND IS MORE IMPORTANT NOW THAN EVER BEFORE. NAS BRUNSWICK IS THE ONLY ONE LEFT.

NO MATTER HOW YOU SLICE IT, IT MAKES NO SENSE TO REALIGN NAS BRUNSWICK AS DOD HAS PROPOSED.

THANK YOU

NAVAL AIR STATION BRUNSWICK TASK FORCE – 2 JUNE 2005

N is a strategic asset of great military value - *recognized as such by the BRAC process*
Strategic location
- Ideal under all BRAC criteria (airspace, facilities, no encroachment, low operating cost, ability to accommodate future total force requirements)

Realignment as proposed by the Navy/DOD contradicts and fails to leverage that military and strategic value to the Navy and the nation
- Fails to optimize the defensive posture of the Maritime Patrol Aircraft force
  - Homeland Defense mission for MPA *certain but still evolving*
    - Maritime Domain Awareness initiative under NORTHCOM
    - Under the President's Maritime Security Directive - Jan 05
    - Under the USN/USCG Capabilities Integration Roadmap (Navy N6/7) -Summer 05
    - Under the Proliferation Security Initiative

Realignment data from DOD shows a failure to include *any* mission requirements from NASB
- Even a small mission requirement extends the payback period from 4 years out to beyond 5 years

Realignment failed to consider upcoming Force Structure changes including the introduction of the Multi-Mission Maritime Aircraft (MMA) in 2012
- MMA will have no Intermediate Maintenance costs
- Intermediate maintenance savings are the *only* savings from realignment in the DOD case
- Eliminating these false savings post-MMA indicates that realignment will *never* reach payback

gnment failed to consider alternative scenarios which *would* be cost-effective
- Introduction of MMA at Brunswick would eliminate 50% of the MILCON required at Jax by the realignment, and postpone the other 50%

Realignment improperly calculated the economic impact on the midcoast, the State, and New England
- Incorrect Metropolitan Statistical Area used by DOD
- Using correct statistics shows huge negative effects from removing 85% of NASB's active duty personnel (75% of the total NAS population)
  - Loss of $132M in direct payrolls
  - Unemployment would increase from 4.7% to between 10-11% based upon the indirect job losses resulting from realignment.

SUMMARY: ***Realignment would degrade the defensive posture of the nation – it cannot be justified on a mission basis***

Realignment would not result in savings to the Navy – it cannot be justified on a financial basis

lignment would have economic effects on the region and State which also cannot be justified

DCN: 11596

Brief Biographies of NASB Task Force Members Presenting to BRAC Commissioners on June 2, 2005

Cdr. Richard (Rick) Tetrev, USN (Ret.)
Chairman, NASB Task Force

Cdr. Tetrev is a retired naval officer with over 26 years of service as both an enlisted man and an officer. He served three tours of duty in Brunswick beginning in 1978 with Wing 5, later as a department head in Patron 10 in the mid 80s, and finished his career as the Executive Officer of NASB. During the initial BRAC round he participated through his assignment in OPNAV as the Administrative Assistant to VADM Wm. D. Smith, USN Navy Programming, Planning, and Budgeting. In the 1993 and 1995 rounds he participated in Brunswick as he oversaw the data call process.

RADM Harry Rich, USN (Ret.)

RADM Rich was born in Searsport, Maine on January 2, 1926. He was raised in Union, Maine and graduated from Union High School in 1943. Eight days later, he joined the United States Navy. He attended Dartmouth College's Navy V-5 Program and later entered Flight Training where he was graduated in June of 1946. RADM Rich flew transport aircraft (DC-4's) in the Pacific and Berlin Airlifts. His squadron tours included the VR-8, VP-23, VP-8 and VX-4, and shipboard tours included the USS Intrepid (CVA11) and USS Wasp (CVS-18). Command Tours included VP-8, NAS Bermuda, Commander Patrol Wings Atlantic Fleet and Command Iceland Defense Force.
RADM Rich also attended George Washington University, where he received his BA & MS degrees, the National War College and the Naval War College. He retired to Maine in May of 1978.

Capt. Ralph J. Dean, USN (Ret.)

A native of Pittsburgh, Pennsylvania, Captain Dean is a graduate of the University of Pittsburgh with a degree in Civil Engineering, and also holds a Masters of Business Administration from Southern New Hampshire University. Commissioned an Ensign in 1974, he was designated a Naval Aviator in 1975, Patrol Plane Commander and Patrol Plane Mission Commander in 1978. He participated in numerous P-3 operations and deployments world-wide. He also served onboard the USS Saratoga, in the Pentagon, and in multiple command tours. Since 1976, Captain Dean has served numerous tours of duty at NAS Brunswick, including duty as Executive Director of the NAS.

Don Gerrish
Town Manager, Brunswick, ME

Don Gerrish is a Maine native and currently serves as the Town Manger for Brunswick, Maine, a position he has held for the past sixteen years. Prior to his service to the Town of Brunswick, he served as Town Manager of Gorham, Maine for ten years and has a total experience of thirty two years in municipal government. He has served as Past President of the International City County Managers Association. Don is a graduate of the University of Maine.

Economic Impact: Realignment of the Brunswick Naval Air Station May 27, 2005

Summary:

The economic impact to Brunswick and the surrounding Bath/Brunswick region as determined by the Department of Defense is flawed.

1. The Department of Defense has calculated the economic impact based on the assumption that all 5,000+ military personnel at BNAS are active duty. Of the total military positions at BNAS, only 2,718 are ACTIVE duty military. The remainder includes 1,341 reservists (SELRES) which are included in the full-time military payroll count along with 400+ SUPSHIP Naval personnel and 702 civilian positions. *Therefore, the base is essentially "mothballed" rather than realigned.*
2. The Department of Defense has assumed that Brunswick is located within the Portland Standard Metropolitan Statistical Areas (SMSA) for purposes of economic impact analysis. Brunswick is not located in the Portland SMSA and the numbers are flawed. The use of the Portland SMSA greatly impacts the analysis. *Therefore, the economic impact is far greater than reported.*
3. BNAS is located in the center of the Town of Brunswick and divides the community into two areas. By de facto "mothballing" the base, the inability of the community to seek redevelopment and reuse opportunities will substantially impact business, recreational, residential and job replacement opportunities. *Therefore, the ability of the community to recover is effectively stalled.*

The following should be specifically considered:

- BNAS realignment will result in a loss of 2,317 full time *active duty military* employees leaving the area. *This is a reduction of 85% of the total current active duty military. The assumption that BNAS will be reduced by only one-half is misleading.*
- Unemployment will more than double, increasing from 4.7% to between 10-11% based upon the indirect jobs that will be impacted by the realignment.
- Rental housing vacancies may increase by 1,500 units representing about 30% of the regional supply and 50% of the Brunswick of multifamily rental housing. (Source: RKG Associates)

- The local real estate market will decline and real estate value will decrease, especially in the multi-family and smaller home single family market.
- Lost opportunity costs will greatly impact the area's ability to recover job losses and revenue. The current plan to "realign" the base will be a de facto "mothballing" and will not enable the community to pursue reuse alternatives for recreation, industrial development, open space and other appropriate uses for the area. As currently planned, there will be no property declared surplus. The realignment will result in a reserve base and reserve bases do not generate a significant number of jobs.

This information is provided to encourage the Department of Defense to reconsider the recommendation for realignment of Brunswick Naval Air Station. A preliminary REMI economic analysis has been run, however a number of issues involved in the measurement of military employment pre and post realignment need to be resolved before the model can be fully employed to understand the economic consequences.

This report is intended to capture major issues only and is organized with the following information:

Labor Market Impact
Payroll Impact
Real Estate Impact
School/Education Impact
Retail Sales Impact
Lost Opportunity Costs
Military Retiree Community
Spousal Impact
Quality of Life Indices

Labor Market Impact:

Note: The following labor market information is specifically for the Town of Brunswick as the local area *and the Bath/Brunswick Labor Market as a regional area.*

- BNAS employment (both civilian and military) represent over 33% of the Town of Brunswick labor force and 13% of the Bath/Brunswick Labor Market.
- Unemployment rates, as a result of realignment, would increase from 4.7% in February, 2005 to between 10% and 11% of the Bath/Brunswick Labor market, depending on base data used.
- The number of people employed in the Bath/Brunswick Labor Market would decrease by 7%.

Town of Brunswick and Bath/Brunswick Regional Labor Market Impacts		
	NASB	**Percent**
Town of Brunswick Labor Market:		
Total BNAS Jobs	5,227	
Total Non-BNAS Jobs in Town of Brunswick Labor Market	10,687	
Total BNAS and Non-BNAS Jobs in Town of Brunswick Labor Market	15,914	
Percent of BNAS Jobs in Town of Brunswick Labor Market		**33%**
Percent of Non-BNAS Jobs in Town of Brunswick Labor Market		67%
Total Percent BNAS and Non-BNAS employees		100%
Bath/Brunswick Labor Market:		
Total BNAS Jobs	5,227	
Total Non-BNAS Jobs in Bath/Brunswick Labor Market	35,610	
Total BNAS and Non-BNAS Jobs in Bath/Brunswick Labor Market	40,837	
Percent of BNAS Jobs in Bath/Brunswick Labor Market		**13%**
Percent of Non-BNAS Jobs in Bath/Brunswick Labor Market		87%
Total Percent BNAS and Non-BNAS employees		100%
Impact of BNAS Realignment on Labor Markets:		
Civilian Job Losses (source: DOD)	61	
Indirect Job Loss Projections (source: SPO)	2,194	
Total Civilian and Indirect Job Loss	2,255	
Resulting Unemployment Rate in Bath/Brunswick Labor Market		10%
Resulting Bath/Brunswick Civilian Labor Market? Realignment	37,905	
Percent Decrease in Bath/Brunswick Labor Market Participation		7%

Source: Town of Brunswick Department of Economic Development

- BNAS realignment will result in a loss of 2,317 full time *active duty military* employees leaving the area. *This is a reduction of 85% of the total current active duty military and $136,200,000 loss in direct and indirect earnings.*
- Military Reserves will be reduced, leaving 1,075 reserves at BNAS. These reserves operate on a weekend and reserve training basis only, with up to 50% residing outside the state. The reserves are primarily ground based reserves; no flight related staff will remain.

- Civilian Jobs Loss: The military identifies 61 civilian jobs that are to be cut. That is the "low projection". If the present ratio of military to civilian support were to remain, the civilian job loss number may grow to as many as 615. That would more than double the present unemployment rate (including indirect job elimination).
- Summary: Overall, jobs will continue to decline as a result of the decline in military jobs through 2009 (REMI Model, May 2005). The result will be a depressed job market in the local economy.

Payroll Impact:

BNAS produces $295 million in direct and indirect payroll per year. To place this in context with the local area, that monetary amount is over half of all payrolls produced by employees in Sagadahoc County on an annual basis. Projections, (which do not include the high projection for lost civilian jobs) suggest a loss of $136.2 million in payroll from the BNAS realignment, or over 50% of the BNAS present payroll.

BNAS Payroll and Payroll Impacts Before Realignment				
		Direct	Indirect	Total
BNAS Payroll	Civilian	$22,000.000	$10,800,000	$32,800,000
	Military	$125,000,000	$53,400,000	$178,400,000
Procurement		$0.00	$84,500,000	$84,500,000
Total Earnings		$147,000,000	$148,700,000	$295,700,000
Employment		5,227 employees	4,918 employees	10,145 employees
BNAS Payroll Realignment Impacts				
		Direct Loss	Indirect Loss	Total Loss
BNAS Payroll	Civilian	$2,000,000	$1,000,000	$3,000,000
	Military	$67,500,000	$19,400,000	$86,900,000
Procurement		$0	$46,300,000	$46,000,000
Total Earning and Procurement Loss		$69,500,000	$66,700,000	$135,900,000
Decrease from Realignment		-47%	-45%	-46%

Source: Brunswick DECD, State Planning Office, 2005

- Salaries can range (including salary and housing assistance) from $42,990 to $74,250. These salaries are within the median income range of the region; their loss will negatively impact average median salary.

- The preliminary REMI model calculating impact on various economic sectors in the region shows the following:
  - Retail sales loss of $15.5 million annually.
  - Real estate and rental losses exceeding $12.5 million annually.
  - The financial and insurance markets will decrease by almost $12 million annually.
  - The construction industry will decline by almost $10 million annually
  - Declines occur to 17 different sectors in the economy and are projected to continue through at least the next ten years.

Real Estate Impact:

The impact to the Brunswick area real estate market will be dramatic. It should be viewed in three areas; impact on the Town government due to the privatization of military housing in November of 2004, impact on landlords/renters and impact on the home owner market.

1. Navy Housing Privatization Impact on BNAS Realignment

In November 2004 Brunswick and Topsham both entered into Agreements with GMH Communities Trust (Northeast Housing LLC) a partner with the Navy, which acquired housing units while enabling the Navy to retain the underlying land. As a result of this "military housing privatization", Brunswick and Topsham started providing some services to the military housing in exchange for a payment in lieu of taxes.

In Brunswick, the Town expects to receive $544,000 per year to provide negotiated services to 463 housing military housing units which are located "outside the fence". The Town has anticipated receipt and expenditure of those funds as part of the budgeting process.

Loss of $544,000 yearly income to the Town of Brunswick used to fund municipal services is significant. The Town of Topsham is similarly impacted although on a smaller scale. Topsham's Agreement provides for $180,000 in fees paid to the municipality for services provided under the terms of the Agreement. This loss would be proportionately significant for Topsham.

2. Off Base Home Ownership Housing Impact:

Military representatives estimate that up to 2,000 personnel live off base, with the majority residing in the towns of Brunswick, Bath and Topsham. Of the total off-base personnel, it is estimated that 500 own their own homes and 1,500 are in rental units. Up to 2,000 housing units within the core housing market area are at-risk for becoming vacant. Most of these units are at the middle to lower end of the housing market.

The flow of BNAS personnel from the housing market will depress the local housing market and significantly depress the local construction industry. It is estimated that 56% of the military families live in Brunswick, suggesting that as many as 149 homes may be owned by military personnel. Approximately one fifth of those homes purchased each year are new construction, therefore, the loss of annual construction revenue to Brunswick is $5.9 million.

The housing market will see a flood of homes put on the market which will have a negative impact on the number of properties sold and total sales, resulting in substantial losses to the local, regional and state real estate economy. Assuming that military families make up 149 home purchases in any one year in Brunswick, the loss of buyers could impact the number of properties sold, reducing the number of sales by between 31% and 54% annually.

Brunswick Residential Property Sales		
Year	# Of Properties Sold	Total Sales
2001	276	$42,307,896
2002	390	$59,370,250.40
2003	453	$82,550,781
2004	482	$114,112,534
2005	71 (1st Quarter)	$15,989,210 (1st Quarter)

Source: Brunswick Assessing Office: 2005

3. Rental Market Impact:

The impact on rents and price levels in the community would be substantial. It is estimated that Navy personnel living in private housing in the communities account for 30-35% of those living in multifamily units. Taking privatization and off base housing together, current Navy plans would result in 50% of the apartments becoming vacant. This will result in a dramatic loss of rental income to landlords, devaluation of property values and loss of tax income to the towns, the potential for disinvestment and other social and economic impacts.

School/Education Impact:

Children of military employees at BNAS average approximately 20% of the student population in the Town of Brunswick School Department each year. In the past ten years, between 595 to 671 military-dependent children have been included in the approximate 3,300 total school population. In addition to the positive social benefits that these children have brought to the community, the School Department receives approximately $1.1 million in Federal Education

Aid. (Source: Brunswick School Department)

Lost students and lost funding would all decrease the quality of education provided to the remaining residents of Brunswick by reducing the diversity of students and the programs that can be offered.

MSAD 75, the school system for Topsham residents has approximately 10% of the student body comprised of military dependents. The loss of impact aid to the MSAD is estimated to be in the range of $150,000.

Impact on Local Colleges

- University of Maine-Augusta (located in Bath) currently enrolls approximately 400 students. Of that total, 20 - 25% are active duty or dependents of active duty military, which calculates to 80 –100 students. Base realignment would result in the loss of approximately $400,000 in revenue, reduced class offerings and loss of employment. (Source: University of Maine-Augusta/Bath campus)
- Southern Maine Community College estimates a decline in student enrollment by 10-15%. The college would correspondingly reduce classes and professors. (Source: SMTC)
- Southern New Hampshire University located in Brunswick enrolls between 800 to 1,000 students each semester. Approximately 50% of those students are active duty military or active duty military dependents participating in both graduate and undergraduate courses. The loss of those students would impact SNHU significantly in reduction of classes, professors and loss of approximately $450,000 in revenue. (Source: SNHU)

Lost Opportunity Costs:

The geographic location of BNAS is significant. The over 3,000 acres which make up the base bisect the Town of Brunswick into two separate commercial and residential areas. Any decision to de facto "mothball" the base will deprive the community and the state of the opportunity to reuse portions for recreation, open space, industrial development, housing, job replacement activities and many other uses that contribute to the health and vitality of a community. As an operational base, the personnel significantly contribute to the community. As a "mothballed" base, the land, and resulting lack of activity will divide the community. The lost redevelopment and/or lost joint reuse opportunities should be considered as a significant adverse economic and social impact. Plans are underway to develop a joint reserve facility on the base. In four previous BRAC rounds, the BRAC Commission recommended 27 actions in which a reserve enclave was to be established at a closed or realigned base. In the 1995 round, the GAO recommended that DoD should clearly state what infrastructure was needed which would result in retention of appropriate acreage. (Source NAID/ADC infobrief May 2005)

Retail Sales Impact:

It is estimated that 83% of BNAS military personnel live in Brunswick, or its surrounding communities. (Source: RKG using BNAS zip code data) With a payroll reduction of $69.5 million, it can be expected that the impact in retail sales will be significant. The preliminary REMI model suggests that there would be a decrease of $22.9 million in retail trade venues throughout Cumberland County. The Brunswick area would be hardest hit.

Assuming that 50% of the military payroll is spent in Brunswick and applying an average disposable income figure for military families of 33%, the annual retail sales loss would be approximately $11 million per year. This would likely apply across all retail categories. Its impact on the local economy is substantial.

Military Retiree Community

An estimated 5,700 military retiree's and family members live in the area to take advantage of the region and of BNAS. (Source NASB 2004 Report to Defense Base Closure and Realignment Commission) The impact of base realignment on this group is unknown however; it is known that currently 60% of all commissary customers are military retirees. Of the total commissary customers, 33% are active duty, 7% are reserves and the remainder is retirees.
(Source: Base Commissary)

Spousal Impact:

Between 60-75% of all full-time active duty military spouses work in the local job market. The role of spouses in the local economy can not be overstated. Recent surveys of the job center suggests that military spouses play an important role in participating in local part time jobs as well as participating to fill both part time and full time teaching needs in the school system. They are also active volunteers.

Quality of Life Indices:

The national media views Brunswick as a great location to live. The cultural and natural amenities it offers attract many looking to relocate to a unique and special place. Among the military, Brunswick is a very popular place to retire, with the existing base being a critical reason for that choice. Over 5,700 military retirees and their families have chosen to live in the Brunswick area (Census, Town of Brunswick).

Other publications that find Brunswick a great place to live are:

- Cyclists: AARP (Nov. /Dec. issues) identified Brunswick as the 8th best place to cycle in the nation.
- Money magazine identifies Brunswick as the 3rd best place to retire (July, 2000).
- Outside Magazine identifies Brunswick as one of the Top 40 College Towns in the Country.
- Brunswick has been featured as a top retirement community in Where to Retire (November, 2003), The *New Retirement: The Ultimate Guide to the Rest of Your Life* (Cull inane, Fitzgerald), and *Where to Retire in Maine* (Doudera).

The popularity of Brunswick as a place to live extends to the military as well. Expansion Management published the results of a survey in its magazine in November of 2004. Among the 354 metropolitan areas that house military bases, Brunswick was ranked 74, or in the upper 20%. The report, which tested for a variety of quality of life indices, ranked Brunswick high in quality of life, education, lack of crime, housing availability, recreation and leisure, among others. Brunswick ranked number one in its population group for having the lowest crime rate. These and many other characteristics make Brunswick one of the top places for military personnel to live or retire.

DCN: 11596

Economic Impacts
Brunswick Naval Air Station Realignment
June 2, 2005

- A loss of 2,317 full time active duty military employees leaving the area is a reduction of 85% of the active duty military and 75% of all employees existing on the base today.

- The Navy used the Portland Labor Market to assess the impact of losing 4,266 military and civilian jobs. The impact was reported as a 1.3% loss in jobs. This is wrong as Brunswick is not part of Portland Labor Market but part of the Bath/Brunswick Labor Market. The impact to the Bath/Brunswick market would be a loss of 10% of the area jobs. This would one of the highest percentage of jobs lost of any of the effected communities in the BRAC process. It would be devastating to the area. .

  BNAS produces $295 million in direct and indirect payroll per year. A conservative reading of the impact will result in a loss of $136 million in yearly payroll into the local economy.
  - Retail sales loss is estimated at $15.5 million annually
  - Real Estate and rental losses will exceed $12.5 million annually
  - Financial and insurance industries will decrease by $12 million annually and construction will decline by an estimated $10 million annually

- Rental housing vacancies will be hard hit with 1,500 units flooding the market. This could create a 50% vacancy rate in multifamily units in Brunswick and could create 30% vacancy rate in multifamily units the region.

- The unemployment rate in the Bath/Brunswick Labor Market could more than double from 4.5% to 10% from the loss of non-military jobs.

- Lost opportunity costs will dim recovery for the region as opportunities for reuse will not be available. The Town is in need of industrial development, recreational opportunities and expanded housing. The proposed realignment virtually leaves the Town and Region with no resources to recover from the economic impact proposed by the realignment.

- Town government will be hard hit with the potential loss of over $550,000 in housing privatization funds and $1.1 million in school subsidy funds for military families, along with the loss of cultural diversity and community involvement of the military and their dependents.

DCN: 11596

Erenn Kiriaell
21 Hudon Road
Lisbon, ME 04250

26 May 2005

Dear Chairman Principi,

I very much appreciate the important work you and the Commission are doing. The security and defense of our country are essential. DoD can only make recommendations within their span of control. Integrating DoD's recommendations and community, state and regional concerns is extremely important. Observing the testimony from DoD officials, the variables and metrics used to make recommendations for closure, realignment and gain has been very informative. I appreciate the tremendous amount of work DoD has accomplished.

I am respectfully asking you to keep Brunswick Naval Air Station fully operational, for the national security, homeland defense and maritime surveillance of the northeastern region of the US. I find it challenging to believe that Brunswick NAS is simultaneously recognized for its strategic value (rationale for realignment) and yet has little military value. As a military retiree and citizen, I am quite concerned about the realignment of Brunswick NAS, essentially transferring all its aircraft and active duty military to Jacksonville Naval Air Station (JAX NAS). At minimum, how is maritime surveillance of the North Atlantic and northeastern US Atlantic to be conducted?

I realize there are many intricacies to DoD/DoN Transformation plans, and while moving BNAS to JAX NAS may fit within a particular opinion of that Transformation model, it does not appear to take into account the impact on National Security in the Northeast Region. Brunswick Naval Air Station is the last military airfield remaining in the Northeast region with a population of over 48 million taxpaying citizens; it serves a truly important role in our national security. It has played an important part in Operations Enduring Freedom, Iraqi Freedom, Asian and Indian Tsunami Relief. Ironically, during hurricane season, JAX NAS P3 squadrons evacuated to Brunswick NAS. Ironically as well, NAS Brunswick is the only Naval Air Station in the US that can support the P-3 replacement aircraft, the multi-mission maritime aircraft (MMA), and any other base will require millions of dollars to bring them up to standards. With realignment the proverb, "use it or lose it" seems to apply, without adequate use and continued maintenance, the millions of taxpayer dollars already invested to modernize Brunswick NAS will be wasted. *Realignment may make it a candidate for a Golden Fleece award.*

Up to now, our government has wisely chosen to increase funding for constructing new facilities (nearly completed) making Brunswick NAS capable of supporting all manned and unmanned aircraft, domestic and international (including Air Force One), across the full range of Homeland Defense operations and contingencies. Brunswick NAS has incredible potential for multi-mission maritime aircraft (MMA), patrols, interdiction, and future operations. As a comprehensive northeast homeland joint defense and security installation it can support current and future operational and training capabilities on land, sea and air. Pending future capabilities include: Multi-mission maritime aircraft basing and support center, armed forces reserve center, maritime interdiction center, aerial refueling master base, fighter squadron basing and support, special warfare center of excellence, NASB is well prepared for the future.

ADM Clark testified about "closing Oceana NAS that he considered moving all of its 240 odd jets to an Air Force base. Clark said leaders concluded that the alternatives were too far from

the East Coast or would cost too much." Navy Times. May 30, 2005, pg 15. Perhaps he couldn't see far enough north to Brunswick NAS, ME.

Brunswick NAS is crucial to current and future national security, and homeland defense, and maritime surveillance and interdiction operations. It is immediately adjacent to all major sea lanes in the North Atlantic, and pathways of international flights. BNAS has more than 63,000 square miles of unencumbered airspace for training and exercise missions. Briefly, Brunswick NAS has; versatile, extensive modern facilities, including a new hangar designed specifically for MMA and BAMS and land with no encroachment issues, completely secured perimeter and outstanding force protection layout and capability, an established all-weather training area available for Special Forces and other units, easy access by all forms of transportation, since 9/11 the military value of the base supersedes anytime since WWII. NASB integrates active-duty and reserve forces, Joint national and international military activities including NATO, receiving and deploying over 100 Joint aircraft and over 850 personnel during recent missions. BNAS is integral to the shipbuilding efforts of Bath Iron Works, providing crew support through Supervisor of Shipbuilding (SUPSHIPS) Bath, Maine.

Reading through the BRAC volumes, "The DoN is very concerned about economic impact and has made every effort to fully understand all of the economic impacts its recommendations might have on local communities." However, the DoN used the Portland-South Portland-Biddeford, ME, Metropolitan Statistical Area for its Economic area comparison for Brunswick NAS. The Portland MSA has a population of about 333,500, with the 4266 jobs lost, the percentage is -1.3% (-.0127) loss. Using the Portland MSA significantly minimizes the true effect of BNAS job losses. The Brunswick-Harpswell-Bath-Topsham population represents a more accurate population to assess the 4266 lost jobs from realigning BNAS. With a population of approximately 44,777 and with 4266 jobs lost the percentage is -10% (-.095) jobs lost. In a rural state, with small communities a 10% jobs loss is significant.

With the uncertainty of the ongoing War on Terrorism our nation can not afford to make a mistake and lose, or "mothball" a strategic location and lose the current resources of NAS Brunswick as it will require significant reinvestment to revive the facilities and personnel resources will not easily be available if realignment occurs. The Brunswick, mid-coast Maine regional community strongly supports BNAS mission, personnel and their families. Mainers like other Americans take homeland security and defense of our nation seriously. I thank you for considering my request *to keep Brunswick Naval Air Station fully operational, protecting the national security, homeland defense and maritime surveillance of the northeast region of the US.*

Kind regards,

Erenn Kiriaell
CDR MSC USN (Ret)

DCN: 11596

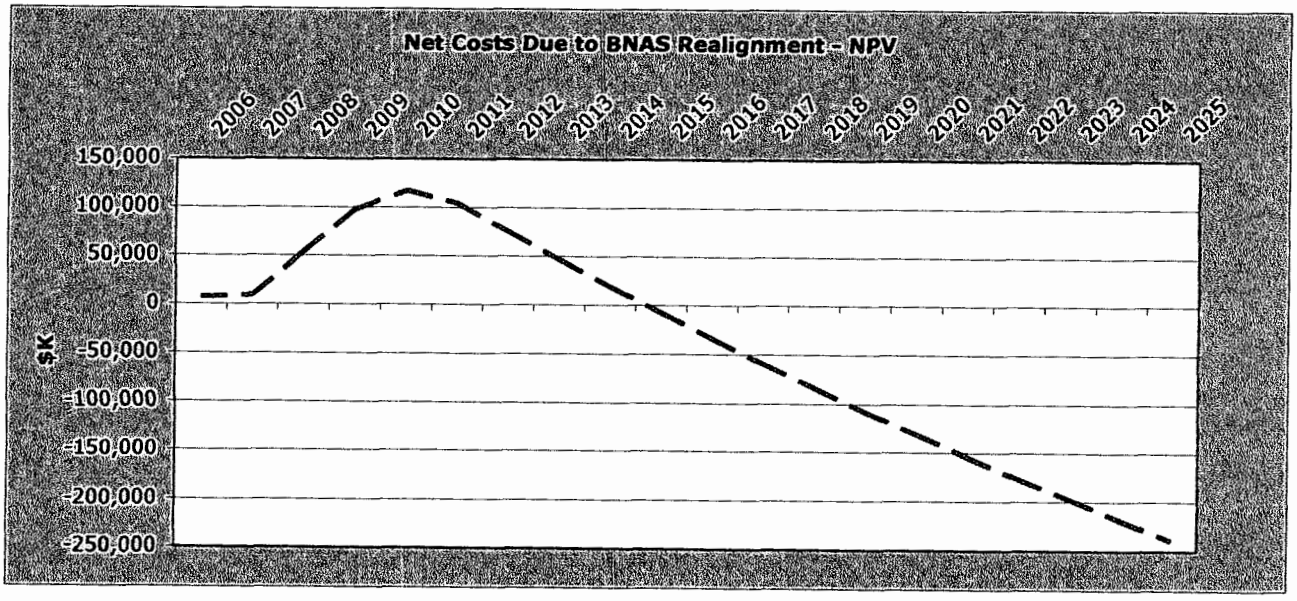
Scenario 1. DoD Baseline COBRA Analysis

Inputs:

Implementation Period	2006-2011
Recovery Period	2012-2025
Transition year from P-3 to P-8 Aircraft	2026
Apply Corrections to Personnel Costs? (Y/N)	N
Apply Corrections to Mission Costs? (Y/N)	N
Apply Corrections to Moving Costs? (Y/N)	N

Results:

Net Implementation Costs ($ millions)	112.6
Ann recurring savings ($ millions)	34.9
Payback Years	4
NPV over 20 years ($ millions)	(238.8)
ROI	17.8%
Average Net Savings per Year, NPV ($ millions)	11.9



Net Cost Analysis ($K)

Year	Baseline 2005 $K	Corrections to Baseline				Adjustments for NPV		
		Personnel	Mission	Moving	Other	TOTAL	Adjusted	NPV
2006	7,022	-				7,022	6,925	6,925
2007	2,327	-				2,327	2,233	9,158
2008	47,116	-				47,116	43,973	53,132
2009	49,401	-				49,401	44,850	97,981
2010	21,482	-				21,482	18,972	116,953
2011	(14,734)	-	-			(14,734)	(12,658)	104,296
2012	(34,872)	-	-			(34,872)	(29,142)	75,154
2013	(34,872)	-	-			(34,872)	(28,348)	46,805
2014	(34,872)	-	-			(34,872)	(27,576)	19,229
2015	(34,872)	-	-			(34,872)	(26,825)	(7,595)
2016	(34,872)	-	-			(34,872)	(26,094)	(33,690)
2017	(34,872)	-	-			(34,872)	(25,384)	(59,073)
2018	(34,872)	-	-			(34,872)	(24,692)	(83,766)
2019	(34,872)	-	-			(34,872)	(24,020)	(107,785)
2020	(34,872)	-	-			(34,872)	(23,365)	(131,151)
2021	(34,872)	-	-			(34,872)	(22,729)	(153,880)
2022	(34,872)	-	-			(34,872)	(22,110)	(175,989)
2023	(34,872)	-	-			(34,872)	(21,508)	(197,497)
2024	(34,872)	-	-			(34,872)	(20,922)	(218,419)
2025	(34,872)	-	-			(34,872)	(20,352)	(238,771)

June 1, 2005

Discount Rate *0.027*

DCN: 11596

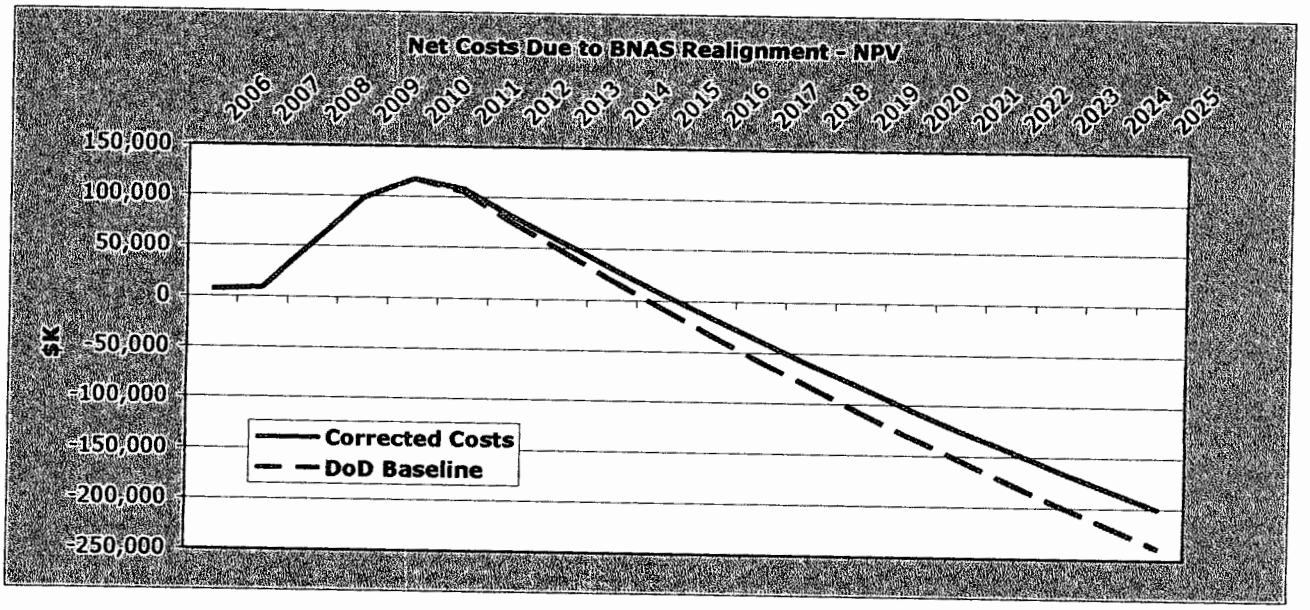
Scenario 2. Corrected for Mission Costs Only

Inputs:

Implementation Period	2006-2011
Recovery Period	2012-2025
Transition year from P-3 to P-8 Aircraft	2026
Apply Corrections to Personnel Costs? (Y/N)	N
Apply Corrections to Mission Costs? (Y/N)	Y
Apply Corrections to Moving Costs? (Y/N)	N

Results:

Net Implementation Costs ($ millions)	116.2
Ann recurring savings ($ millions)	31.3
Payback Years	5
NPV over 20 years ($ millions)	(200.8)
ROI	15.9%
Average Net Savings per Year, NPV ($ millions)	10.0



Net Cost Analysis ($K)

Year	Baseline 2005 $K	Corrections to Baseline				Adjustments for NPV		
		Personnel	Mission	Moving	Other	TOTAL	Adjusted	NPV
2006	7,022	-				7,022	6,925	6,925
2007	2,327	-				2,327	2,233	9,158
2008	47,116	-				47,116	43,973	53,132
2009	49,401	-				49,401	44,850	97,981
2010	21,482	-				21,482	18,972	116,953
2011	(14,734)	-	3,547			(11,187)	(9,610)	107,343
2012	(34,872)	-	3,547			(31,324)	(26,177)	81,166
2013	(34,872)	-	3,547			(31,324)	(25,464)	55,701
2014	(34,872)	-	3,547			(31,324)	(24,771)	30,930
2015	(34,872)	-	3,547			(31,324)	(24,096)	6,834
2016	(34,872)	-	3,547			(31,324)	(23,440)	(16,606)
2017	(34,872)	-	3,547			(31,324)	(22,801)	(39,407)
2018	(34,872)	-	3,547			(31,324)	(22,180)	(61,587)
2019	(34,872)	-	3,547			(31,324)	(21,576)	(83,163)
2020	(34,872)	-	3,547			(31,324)	(20,989)	(104,152)
2021	(34,872)	-	3,547			(31,324)	(20,417)	(124,569)
2022	(34,872)	-	3,547			(31,324)	(19,861)	(144,430)
2023	(34,872)	-	3,547			(31,324)	(19,320)	(163,749)
2024	(34,872)	-	3,547			(31,324)	(18,794)	(182,543)
2025	(34,872)	-	3,547			(31,324)	(18,282)	(200,825)

June 1, 2005

Discount Rate *0.027*

DCN: 11596

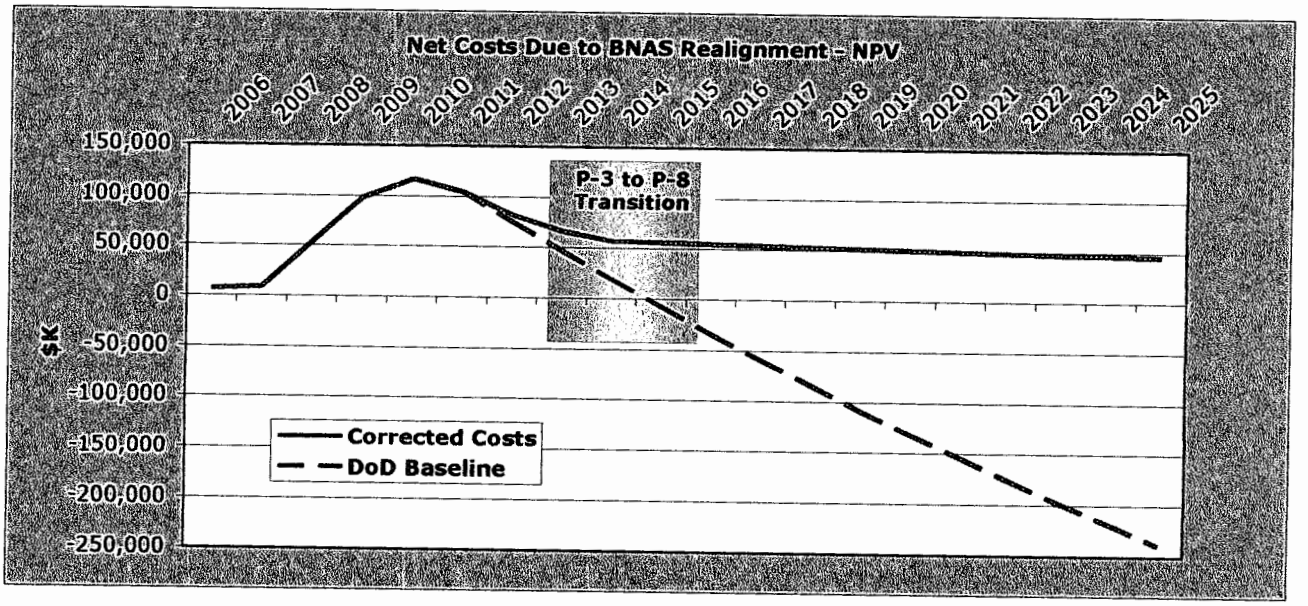
Scenario 3. Corrected for AIMD Personnel Costs Only

Inputs:

Implementation Period	2006-2011
Recovery Period	2012-2025
Transition year from P-3 to P-8 Aircraft	2014
Apply Corrections to Personnel Costs? (Y/N)	y
Apply Corrections to Mission Costs? (Y/N)	n
Apply Corrections to Moving Costs? (Y/N)	n

Results:

Net Implementation Costs ($ millions)	112.6
Ann recurring savings ($ millions)	1.5
Payback Years	N/A
NPV over 20 years ($ millions)	45.9
ROI	N/A
Average Net Savings per Year, NPV ($ millions)	(2.3)



Net Cost Analysis ($K)

Year	Baseline 2005 $K	Corrections to Baseline				Adjustments for NPV		
		Personnel	Mission	Moving	Other	TOTAL	Adjusted	NPV
2006	7,022	-				7,022	6,925	6,925
2007	2,327	-				2,327	2,233	9,158
2008	47,116	-				47,116	43,973	53,132
2009	49,401	-				49,401	44,850	97,981
2010	21,482	-				21,482	18,972	116,953
2011	(14,734)	-	-			(14,734)	(12,658)	104,296
2012	(34,872)	7,797	-			(27,074)	(22,626)	81,670
2013	(34,872)	15,594	-			(19,277)	(15,671)	65,999
2014	(34,872)	23,392	-			(11,480)	(9,078)	56,920
2015	(34,872)	33,384	-			(1,487)	(1,144)	55,776
2016	(34,872)	33,384	-			(1,487)	(1,113)	54,663
2017	(34,872)	33,384	-			(1,487)	(1,083)	53,581
2018	(34,872)	33,384	-			(1,487)	(1,053)	52,528
2019	(34,872)	33,384	-			(1,487)	(1,024)	51,503
2020	(34,872)	33,384	-			(1,487)	(997)	50,507
2021	(34,872)	33,384	-			(1,487)	(969)	49,537
2022	(34,872)	33,384	-			(1,487)	(943)	48,594
2023	(34,872)	33,384	-			(1,487)	(917)	47,677
2024	(34,872)	33,384	-			(1,487)	(892)	46,784
2025	(34,872)	33,384	-			(1,487)	(868)	45,916

June 1, 2005

Discount Rate *0.027*

DCN: 11596

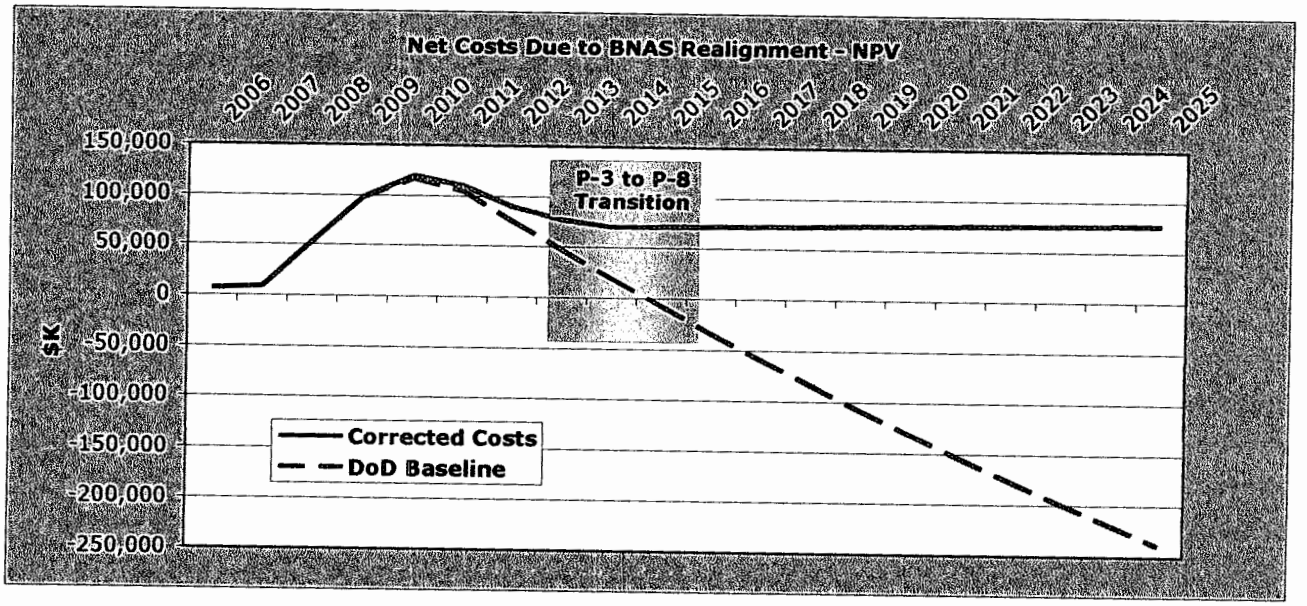
Scenario 4. Corrected for Mission and Personnel Costs

Inputs:

Implementation Period	2006-2011
Recovery Period	2012-2025
Transition year from P-3 to P-8 Aircraft	2014
Apply Corrections to Personnel Costs? (Y/N)	Y
Apply Corrections to Mission Costs? (Y/N)	Y
Apply Corrections to Moving Costs? (Y/N)	Y

Results:

Net Implementation Costs ($ millions)	118.7
Ann recurring savings ($ millions)	(0.9)
Payback Years	N/A
NPV over 20 years ($ millions)	76.5
ROI	N/A
Average Net Savings per Year, NPV ($ millions)	(3.8)



Net Cost Analysis ($K)

Year	Baseline 2005 $K	Corrections to Baseline				Adjustments for NPV		
		Personnel	Mission	Moving	Other	TOTAL	Adjusted	NPV
2006	7,022	-				7,022	6,925	6,925
2007	2,327	-				2,327	2,233	9,158
2008	47,116	-				47,116	43,973	53,132
2009	49,401	-				49,401	44,850	97,981
2010	21,482	-		2,569		24,051	21,240	119,222
2011	(14,734)	-	3,547			(11,187)	(9,610)	109,611
2012	(34,872)	7,797	3,547			(23,527)	(19,661)	89,950
2013	(34,872)	15,594	3,547			(15,730)	(12,787)	77,163
2014	(34,872)	23,392	2,366			(9,114)	(7,207)	69,956
2015	(34,872)	33,384	2,366			879	676	70,632
2016	(34,872)	33,384	2,366			879	658	71,289
2017	(34,872)	33,384	2,366			879	640	71,929
2018	(34,872)	33,384	2,366			879	622	72,551
2019	(34,872)	33,384	2,366			879	605	73,156
2020	(34,872)	33,384	2,366			879	589	73,745
2021	(34,872)	33,384	2,366			879	573	74,318
2022	(34,872)	33,384	2,366			879	557	74,875
2023	(34,872)	33,384	2,366			879	542	75,417
2024	(34,872)	33,384	2,366			879	527	75,944
2025	(34,872)	33,384	2,366			879	513	76,457

June 1, 2005

Discount Rate *0.027*

DCN: 11596

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DCN: 11596

Tickle, Harold, CIV, WSO-BRAC

From: Hanna, James, CIV, WSO-BRAC
Sent: Thursday, August 11, 2005 7:31 PM
To: Tickle, Harold, CIV, WSO-BRAC
Subject: FW: Brunswick study on limited ability to redevelop

Attachments: August 11 respose to question on reuse by Commsion.doc

August 11 respose to question ...

From: Eaglen, Mackenzie (Collins) [mailto:MacKenzie_Eaglen@collins.senate.gov]
Sent: Thursday, August 11, 2005 5:27 PM
To: james.hanna@wso.whs.mil
Subject: Brunswick study on limited ability to redevelop

Jim,

The Brunswick Task Force President, Rick Tetrev, has overnighted you the letter attached and a copy of the report. The dual-use study was done by the Mid-Coast Council for Business Development funded through a state grant in 1998.

It was determined that the redevelopment options for Brunswick are limited at best. For example, on page 25 of the report it states that, "Even if FedEx or another carrier could be attracted to NASB, the number of flights would be limited (1 or 2 per day at most) and they would require full airport services to operate." In regard to passenger operations, the picture is also bleak, as noted on page 25 of the report. It states: NASB "would face substantial competition from not only Bangor, but also other regional airports such as Pease and Westover. In addition, such a use would require expensive passenger terminal and Customs/Immigration facilities"for a relatively few number of flights." It also stated that, "Portland Jetport serves the region"s needs well with its existing facilities and long term demand does not appear sufficient to acquire new facilities."

The final conclusion in this area was, "In New England alone there are six former military airfields that are attempting to attract these users, all with existing buildings and infrastructure." And, "The ability of NASB to compete for this market is considered extremely limited, unless, a potential user has a need to be in close proximity to active Navy operations (e.g. a Lockheed Martin P-3 or C-130 overhaul facility)."

I hope this is helpful. Thanks again,
Mackenzie

DCN: 11596

37 Stonewall Trail
Woolwich, Maine 04579
August 11, 2005

Chairman Anthony J. Principi and Members of the Defense Base Closure and Realignment Commission
Office of the Defense Base Closure and Realignment Commission
2521 South Clark Street, Suite 600
Arlington, VA 22202

Dear Chairman Principi and Members of the Defense Base Closure and Realignment Commission:

Enclosure: Portions of the 1998 Dual Use Analysis for Naval Air Station Brunswick conducted by RKG Associates, Inc., Durham, NH

At yesterday's hearing for consideration of closure of Naval Air Station Brunswick Commissioner Bilbray asked a question of the Brunswick panel on the possibility of what types of uses could be attracted to the base if it was closed. I offer the following excerpt from a 1998 Dual Use (public private partnership between Navy and the community) study that the Mid Coast Council for Business Development commissioned in response to the question. I am answering it not only as the Chairman of the BNAS Task Force but also as the Executive Director of the Chamber of Commerce and Vice President of the Business Development Council at the time when the report and study was conducted.

As background information the study was done through a state grant and for the purpose of making NAS Brunswick more cost efficient to the Department of the Navy and to help insure its long term viability to the Nation, the State, and the Community. We were assisted in this effort by Senator Olympia Snowe of Maine and the former Governor, Angus King. I must also note that the study was conducted as a result of a recommendation by the BNAS Task Force after the 1995 BRAC round. It is the same task force that has represented the community through out this round.

The focus of my answer to you comes from the study done and from what I believe to be the best use for an airfield, aviation. Anything else other than aviation would completely negate the value of the existing infrastructure and assets. In that regard the only thing to do was to determine the demand for airport dependent users such as air cargo companies, commercial carriers and aircraft repair and remanufacturing concerns. What was determined was very discouraging and it became quickly evident that those options are limited at best. For example on page 25 of the report it states that, "Even if FedEx or another carrier could be attracted to NASB, the number of flights would be limited (1 or 2 per day at most) and they would require full airport services to operate." To now put that in perspective on August 11, 2005 one of FedEx's Vice Presidents, Capt Robert L. Rocher, USN (Ret.), former Commanding Officer, NAS Brunswick 1992

through 1994 confirmed to me just last week that NASB would still not meet the needs of the company.

In regard to passenger operations the picture is also bleak as noted on page 25 of the report saying that, NASB "would face substantial competition from not only Bangor but also other regional airports such as Pease and Westover. In addition, such a use would require expensive passenger terminal and Customs/Immigration facilities...for a relatively few number of flights." It also stated that, "Portland Jetport serves the region's needs well with its existing facilities and long term demand does not appear sufficient to acquire new facilities."

It was noted in the report that several former military airports have been successful at attracting companies that conduct aircraft repair and maintenance but they are mainly in the south and south west. One successful use in a northern state (Wurtsmith AFB in Oscoda, MI) is making it but works mostly seasonally and the hangar space it uses is rented for very little. The final conclusion in this area was, "In New England alone there are six former military airfields that are attempting to attract these users, all with existing buildings and infrastructure." And, "The ability of NASB to compete for this market is considered extremely limited, unless, a potential user has a need to be in close proximity to active Navy operations (e.g. a Lockheed Martin P-3 or C-130 overhaul facility)."

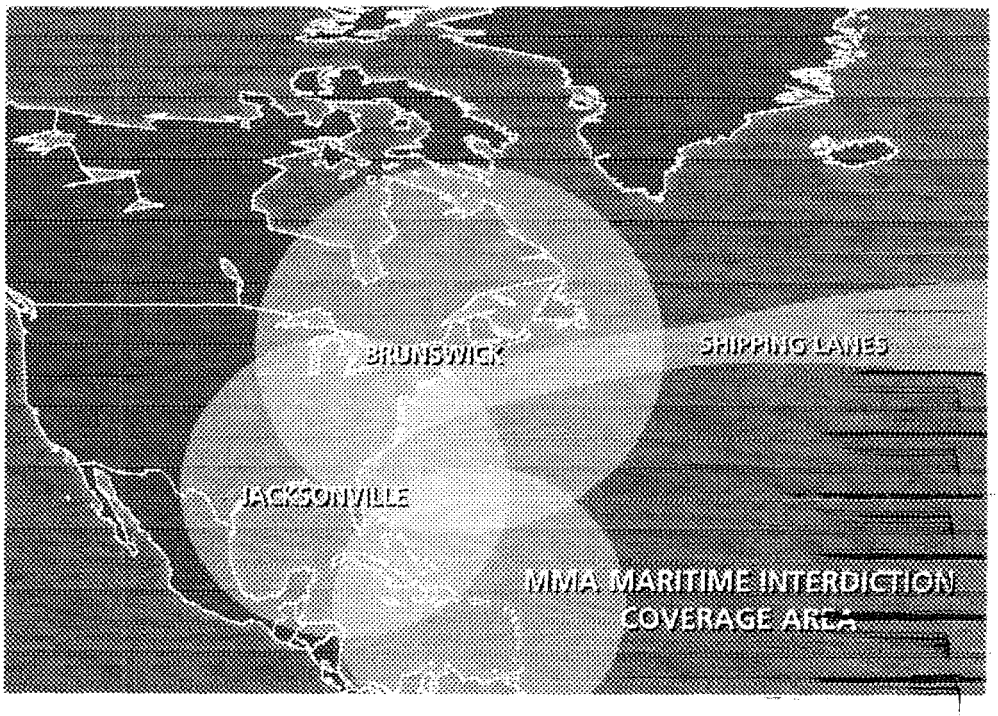
In conclusion, the options for use were not good in 1998 and are not better today. In order to give the entire picture of how the analysis was done and the actual final report I am enclosing a copy of those pages for your review. I must note that since your requirement to have all supporting material to the commission by tomorrow I can only send a copy which is on file with the Mid Coast Council but if a certified copy is required for your deliberations I am confident that the contractor who did the work can provide one.

Thank you for your questions and your service.

Sincerely,

Cdr. Richard H. Tetrev, USN (Ret.)
Chairman, BNAS Task Force

DCN: 11596



Homeland Defense and Maritime Interdiction Operations

In the business of homeland defense (as in real estate), location is the key. Imagine a naval search for a single, relatively small merchant ship, which intelligence sources have revealed has a hold full of weaponized chemicals. Its destination is a major coastal city. After tense hours of searching, a maritime patrol aircraft locates two possible suspect vessels out of hundreds in one of the world's busiest maritime areas. The aircraft directs two fast naval frigates to the vicinity of the targets. The frigates and their onboard helicopters intercept and challenge the target vessels. One vessel submits to search and is determined to be harmless. The other however, resists interception and boarding. Finally, helicopter-borne special operations commandoes descend upon the vessel, board and secure the ship and its potentially deadly cargo.

This scenario actually occurred in the western Mediterranean Sea last month. The weapons of mass destruction seized were simulated; the entire sequence of events part of a successful exercise of Maritime Interdiction Operations conducted by forces of four NATO nations.

Maritime interdiction capability is a hot item right now for defense planners, a particularly important focus of a larger effort known as the Proliferation Security Initiative (PSI). PSI is being advanced by 15 core member nations, brought together at the request of President Bush last year to develop cooperative diplomatic, military, and intelligence means to stop ships which may be carrying weapons of mass destruction (WMD). Many of the maritime interdiction precepts under PSI are evolving from a multinational "game" conducted last September at the Naval War College in Newport, Rhode Island, and refining these concepts and procedures is clearly a high priority for the

nations involved. Japan recently hosted the latest multinational PSI exercise, the twelfth in the short time since the Initiative began.

As the Mediterranean exercise and others showed, Maritime Patrol Aircraft (MPA) are a critical, almost always essential part of successful maritime interdiction. Whether conducting a broad-area search, refining a datum provided by other (including national) sensors, or vectoring surface, rotary-wing or special-warfare assets to a target, MPA are a key link in the chain from initial intelligence to intercept. MPA are of particular value in crowded shipping lanes, in areas of poor weather or visibility. No other platform is as versatile in this mission area, one as old and enduring as naval aviation itself. *But land-based aircraft need bases to fly from – bases which optimize their speed, range, and turnaround capability on missions protecting the nation's most vital areas.* The seaborne WMD threat has become primary. Maritime interdiction platforms *and* infrastructure must be top concerns for naval strategists and planners.

Fortunately help is on the way, again from patrol aviation. The Multi-mission Maritime Aircraft (MMA) promises a substantial increase in capability for commanders responsible for maritime interdiction. Based on the Boeing 737-800, the MMA will bring increased speed, range, and reliability compared to the current workhorse MPA, the P-3C Orion. MMA sensors for interdiction missions will include a new electro-optical and infrared spectrum sensor, moving target indicators, an enhanced inverse synthetic aperture / synthetic aperture radar, and a new signals intelligence suite. Perhaps best of all, MMA will control and exploit the capabilities of the Broad-Area Maritime Surveillance (BAMS) Unmanned Aerial Vehicle.

The aircraft themselves will certainly be fantastic, but land-based planes are only as good as the base they operate from, and the future homes for MMA/BAMS have not yet been identified. Conventional wisdom has it that the transition from the P-3 force to one of fewer than half as many MMA will inevitably result in a reduction in the number of maritime patrol aircraft bases in the U.S. This assumption may be incorrect, since ***optimum basing for maritime interdiction assets is as important as the assets themselves***. Bases must be located to provide *rapid response* to all coastal areas, particularly those containing major population centers and port facilities. They must be *versatile*, able to support not just MPA, but rotary wing units and special warfare forces with *easy access*, unencumbered *space and facilities for joint, coordinated training*, and *self-protection and security* from intrusion or attack. Maritime interdiction is a team game, and collocation of the assets for training and operations is essential.

The current MPA force laydown includes P-3 bases at Kaneohe Bay in Hawaii, Jacksonville, Florida, Brunswick, Maine, and Whidbey Island in Washington State. A robust P-3 capability is maintained for fleet support and other missions at the North Island Naval Air Station in San Diego. These last four bases, at the "corners" of the continental U.S. are perfectly situated for maritime interdiction of WMD threats. From these sites, MMA response time to any point on the coast will be less than two hours, and all major sea lanes of

approach can be covered within the 1200 – 1500 nautical mile operational range of the aircraft.

All four sites have their advantages, and all are essential to that coverage. For example, the **Naval Air Station in Brunswick, Maine** has remarkable potential as a *joint forces maritime interdiction center* under the PSI initiative:

- The only remaining fully capable active-duty military airfield in the northeastern U.S. and near its coastal cities – **a region of over 48 million people**.
- Immediately adjacent to all major sea lanes in the North Atlantic.
- More than 63,000 square miles of unencumbered airspace for training and exercise missions.
- Versatile and extensive modern facilities (including a new hangar designed specifically for MMA and BAMS) and land with no encroachment issues.
- An established all-weather training area available for Special Forces and other units.
- Completely secured perimeter and outstanding force protection layout and capability.
- Easy access by all forms of transportation.

The ports and shipping lanes to the northeastern region of the United States deserve the protection which can only be provided by maritime interdiction forces operating from a base within that region. Obviously transatlantic shipping is critical to our nation's economy, but as west coast ports operate at capacity, more and more operators are redirecting their shipments from Asia directly to the northeast. These shippers prefer to have their cargo spend the additional 7 to 10 days at sea rather than accept delays at west coast ports and during rail transport across the continent. Container traffic to New York alone has risen 65% in the last five years, the fastest rate of growth in over 50 years. All of the enormous volume of shipping to the region must be monitored, and if necessary interdicted whenever it may pose a threat.

The Defense Department's Base Closure and Realignment Commission (BRAC) will in 2005 identify military infrastructure for permanent elimination. The BRAC process ***must carefully factor in future requirements for maritime interdiction as they are just now being developed under the PSI***. Caution is indicated - the nation cannot afford to close irreplaceable military facilities just as new concepts and capabilities are being developed to address a burgeoning threat. *Maritime interdiction of weapons of mass destruction headed for our shores is zero-defect work*, and the selection of bases for that effort must be equally judicious and effective. **Location is an enduring essential – we must keep open our bases "at the corners."**

State of Maine

DCN: 11596

In the Year of Our Lord Two Thousand Five

JOINT RESOLUTION MEMORIALIZING THE CONGRESS OF THE UNITED STATES TO MANDATE THAT THE BASE REALIGNMENT AND CLOSURE COMMISSION REJECT THE DEPARTMENT OF DEFENSE'S RECOMMENDATION TO REALIGN NAVAL AIR STATION BRUNSWICK AND TO CLOSE PORTSMOUTH NAVAL SHIPYARD AND THE DEFENSE FINANCE AND ACCOUNTING SERVICE IN LIMESTONE

WE, your Memorialists, the Members of the One Hundred and Twenty-second Legislature of the State of Maine now assembled in the First Special Session, most respectfully present and petition the Congress of the United States as follows:

WHEREAS, the military value of Naval Air Station Brunswick, Portsmouth Naval Shipyard and the Defense Finance and Accounting Service in Limestone is highly significant; and

WHEREAS, the security of the North Atlantic seaways and the borders of the United States and of the State of Maine are jeopardized by the Department of Defense's recommendation to close Naval Air Station Brunswick, which would put the safety and welfare of United States citizens at risk; and

WHEREAS, the Portsmouth Naval Shipyard in Kittery, Maine was recently cited by the United States Navy as the most efficient submarine repair facility, public or private, in the Nation; and

WHEREAS, the economic and job loss impact of the Base Realignment and Closure Commission's recommendations is significant in terms of the potential elimination of an estimated 12,000 military and civilian jobs in both Maine and New Hampshire; and

WHEREAS, the Base Realignment and Closure Commission will tour Portsmouth Naval Shipyard in Kittery on June 1, 2005 and Naval Air Station Brunswick on June 2, 2005, and the commission's regional hearing on recommendations affecting Maine will occur July 6, 2005, with final recommendations to be made to President Bush by September 8, 2005; now, therefore, be it

RESOLVED: That We, your Memorialists, on behalf of the people we represent, respectfully urge and request that the Base Realignment and Closure Commission and the United States Congress actively work with the Honorable John E. Baldacci, Governor of Maine, the Maine State Legislature, local task forces and Maine citizens in reviewing the accuracy of the methodology used in developing current recommendations in order to reverse or minimize the recommendations to realign Naval Air Station Brunswick and to close Portsmouth Naval Shipyard in Kittery and the Defense Finance and Accounting Service in Limestone; and be it further

RESOLVED: That suitable copies of this resolution, duly authenticated by the Secretary of State, be transmitted to the Honorable George W. Bush, President of the United States, the President of the United States Senate, the Speaker of the United States House of Representatives and each Member of the Maine Congressional Delegation.

DCN: 11596

In Senate Chamber
June 1, 2005
Read and Adopted
Sent Down for Concurrence
Ordered Sent Down Forthwith

Joy J. O'Brien
Secretary

House of Representatives
June 1, 2005
Under Suspension of the Rules
Read and Adopted
In Concurrence

Millicent M. MacFarland
Clerk

S.P. 0630

ATTEST: Beth Edmonds
Beth Edmonds
President of the Senate

ATTEST: John Richardson
John Richardson
Speaker of the House of Representatives

Sponsored by: President Edmonds of Cumberland County
Cosponsored by: Speaker Richardson of Brunswick

Senator Andrews of York County
Senator Bartlett of Cumberland County
Senator Brennan of Cumberland County
Senator Bromley of Cumberland County
Senator Bryant of Oxford County
Senator Clukey of Aroostook County
Senator Courtney of York County
Senator Cowger of Kennebec County
Senator Damon of Hancock County
Senator Davis of Piscataquis County
Senator Diamond of Cumberland County
Senator Dow of Lincoln County
Senator Gagnon of Kennebec County
Senator Hastings of Oxford County
Senator Hobbins of York County
Senator Martin of Aroostook County
Senator Mayo of Sagadahoc County
Senator Mills of Somerset County
Senator Mitchell of Kennebec County
Senator Nass of York County
Senator Nutting of Androscoggin County
Senator Perry of Penobscot County
Senator Plowman of Penobscot County
Senator Raye of Washington County
Senator Rosen of Hancock County
Senator Rotundo of Androscoggin County
Senator Savage of Knox County
Senator Schneider of Penobscot County
Senator Snowe-Mello of Androscoggin County
Senator Strimling of Cumberland County
Senator Sullivan of York County
Senator Turner of Cumberland County
Senator Weston of Waldo County
Senator Woodcock of Franklin County

Representative Adams of Portland
Representative Annis of Dover-Foxcroft
Representative Ash of Belfast
Representative Austin of Gray
Representative Babbidge of Kennebunk
Representative Barstow of Gorham
Representative Beaudette of Biddeford
Representative Berube of Lisbon
Representative Bierman of Sorrento
Representative Bishop of Boothbay
Representative Blanchard of Old Town
Representative Blanchette of Bangor
Representative Bliss of South Portland
Representative Bowen of Rockport
Representative Bowles of Sanford
Representative Brannigan of Portland
Representative Brautigam of Falmouth
Representative Brown of South Berwick
Representative Browne of Vassalboro
Representative Bryant of Windham
Representative Bryant-Deschenes of Turner
Representative Burns of Berwick
Representative Cain of Orono
Representative Campbell of Newfield
Representative Canavan of Waterville
Representative Carr of Lincoln
Representative Cebra of Naples
Representative Churchill of Washburn
Representative Clark of Millinocket
Representative Clough of Scarborough
Representative Collins of Wells
Representative Craven of Lewiston
Representative Cressey of Cornish

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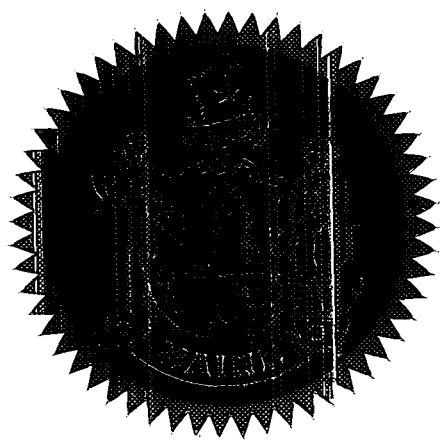
Representative Crosby of Topsham
Representative Crosthwaite of Ellsworth
Representative Cummings of Portland
Representative Curley of Scarborough
Representative Curtis of Madison
Representative Daigle of Arundel
Representative Davis of Falmouth
Representative Davis of Augusta
Representative Driscoll of Westbrook
Representative Duchesne of Hudson
Representative Dudley of Portland
Representative Dugay of Cherryfield
Representative Dunn of Bangor
Representative Duplessie of Westbrook
Representative Duprey of Hampden
Representative Eberle of South Portland
Representative Eder of Portland
Representative Edgecomb of Caribou
Representative Emery of Cutler
Representative Faircloth of Bangor
Representative Farrington of Gorham
Representative Finch of Fairfield
Representative Fischer of Presque Isle
Representative Fisher of Brewer
Representative Fitts of Pittsfield
Representative Fletcher of Winslow
Representative Flood of Winthrop
Representative Gerzofsky of Brunswick
Representative Glynn of South Portland
Representative Goldman of Cape Elizabeth
Representative Greeley of Levant
Representative Grose of Woolwich
Representative Hall of Holden
Representative Hamper of Oxford
Representative Hanley of Paris
Representative Hanley of Gardiner
Representative Harlow of Portland
Representative Hogan of Old Orchard Beach
Representative Hotham of Dixfield
Representative Hutton of Bowdoinham
Representative Jackson of Fort Kent
Representative Jacobsen of Waterboro
Representative Jennings of Leeds
Representative Jodrey of Bethel
Representative Joy of Crystal
Representative Kaelin of Winterport
Representative Koffman of Bar Harbor
Representative Lansley of Sabattus
Representative Lerman of Augusta
Representative Lewin of Eliot
Representative Lindell of Frankfort
Representative Lundeen of Mars Hill
Representative Makas of Lewiston
Representative Marean of Hollis
Representative Marley of Portland
Representative Marraché of Waterville
Representative Mazurek of Rockland
Representative McCormick of West Gardiner
Representative McFadden of Dennysville
Representative McKane of Newcastle
Representative McKenney of Cumberland
Representative McLeod of Lee
Representative Merrill of Appleton
Representative Miller of Somerville
Representative Millett of Waterford
Representative Mills of Farmington
Representative Moody of Manchester
Representative Moore of the Passamaquoddy Tribe
Representative Moore of Standish
Representative Moulton of York
Representative Muse of Fryeburg
Representative Nass of Acton
Representative Norton of Bangor
Representative Nutting of Oakland
Representative O'Brien of Lewiston
Representative Ott of York
Representative Paradis of Frenchville
Representative Patrick of Rumford
Representative Pelletier-Simpson of Auburn
Representative Percy of Phippsburg
Representative Perry of Calais
Representative Pilon of Saco
Representative Pineau of Jay
Representative Pingree of North Haven
Representative Pinkham of Lexington Township
Representative Piotti of Unity
Representative Plummer of Windham
Representative Rector of Thomaston
Representative Richardson of Carmel
Representative Richardson of Greenville
Representative Richardson of Skowhegan
Representative Richardson of Warren
Representative Rines of Wiscasset
Representative Robinson of Raymond
Representative Rosen of Bucksport
Representative Sampson of Auburn
Representative Saviello of Wilton
Representative Schatz of Blue Hill
Representative Seavey of Kennebunkport
Representative Sherman of Hodgdon
Representative Shields of Auburn
Representative Smith of Monmouth
Representative Smith of Van Buren
Representative Sockalexis of the Penobscot Nation
Representative Stedman of Hartland
Representative Sykes of Harrison
Representative Tardy of Newport
Representative Thomas of Ripley
Representative Thompson of China
Representative Trahan of Waldoboro
Representative Tuttle of Sanford
Representative Twomey of Biddeford
Representative Valentino of Saco
Representative Vaughan of Durham
Representative Walcott of Lewiston
Representative Watson of Bath
Representative Webster of Freeport
Representative Wheeler of Kittery
Representative Woodbury of Yarmouth

In Testimony Whereof, I caused the seal of the State to be hereunto affixed, GIVEN under my hand at Augusta, this 1st Day of June in the year of our LORD two thousand five

Matthew Dunlap
Secretary of State



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