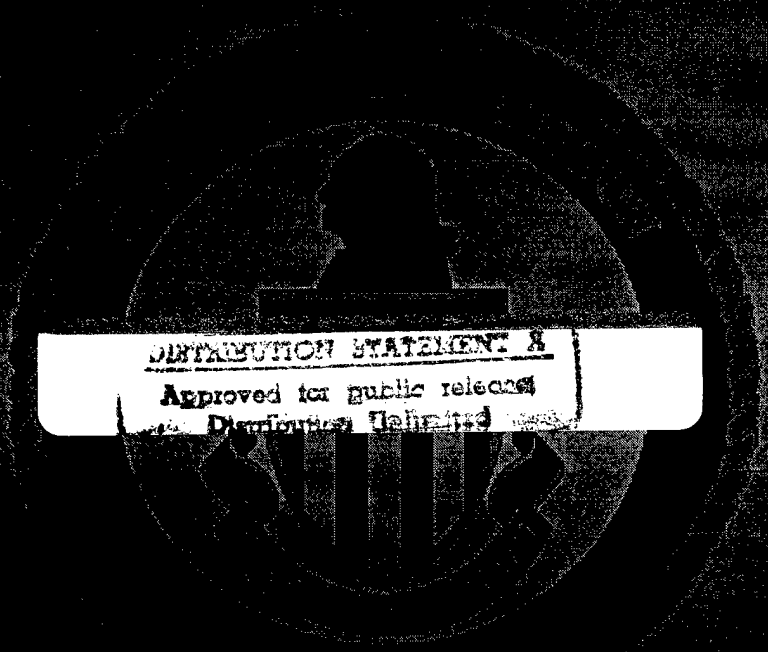
Government Performance and Results Act FY 96 Performance Report



Commander in Chief U.S. Atlantic Fleet

17 September 97

DEPARTMENT OF THE NAVY
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Ser 8/00040
25 Feb 97

MEMORANDUM FOR THE COMPTROLLER, DEPARTMENT OF DEFENSE

Via: Comptroller of the Navy

Subj: CINCLANTFLT FY 96 GOVERNMENT PERFORMANCE & RESULTS ACT (GPRA) PERFORMANCE REPORT

1. This report concludes Commander in Chief, U.S. Atlantic Fleet's (CINCLANTFLT) formal participation in the GPRA FY 96 Performance Plan pilot series. It provides background information on the pilot project development process, project highlights, results and lessons learned from the participation of the GEORGE WASHINGTON Carrier Battle Group as CINCLANTFLT's designated pilot activity.

2. There are a series of "Firsts" in this report. It marks Navy's initial participation in the GPRA performance plan pilot series required by the law. It also highlights DoD's initial designation of a forward deployed combatant force as a participant in a GPRA pilot program. Lastly it defines the process we used in our initial attempt to quantitatively measure the performance of a major naval combatant force through its operating cycle including overseas deployment under the Navy's Forward Presence Strategy.

3. Our experience in this performance plan pilot event has proven most rewarding. We have collectively learned much on how to approach measuring the performance of a complex, dynamic organization such as a Carrier Battle Group. This effort also complemented and reinvigorated internal staff initiatives to better measure the resource costs associated with providing combat ready rotational forces for forward deployment. "Cost visibility" has taken on renewed emphasis within the Atlantic Fleet and subordinate staffs as we build upon the knowledge gained in this GPRA pilot project.

Subj: CINCLANTFLT FY 96 GOVERNMENT PERFORMANCE & RESULTS ACT (GPRA) PERFORMANCE REPORT

4. The success gained from this pilot effort rests with the GEORGE WASHINGTON Battle Group staff. Their enthusiastic acceptance of this added challenge and their exceptional dedication in ensuring the concept of combatant force performance measurement was thoroughly tested were the key ingredients to success.

5. Additionally OSD (C)(PMR)'s support in providing the pilot activities with the latitude to fully explore the opportunities presented in this pilot initiative was instrumental to our ability to achieve a satisfying end result.

HENRY C. GIFFIN, III
Deputy and Chief of Staff
Commander in Chief,
U.S. Atlantic Fleet

Copy to:
Chief of Naval Operations (CNO N00, N09, N8)
Commander in Chief, U.S. Pacific Fleet (N00)
Commander, SECOND FLEET
Commander, GEORGE WASHINGTON Battle Group

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I. Executive Summary

The GEORGE WASHINGTON Carrier Battle Group was nominated as Commander in Chief, U.S. Atlantic Fleet's (CINCLANTFLT) participant in the GPRA FY 96 Performance Plan pilot series. In response to the Department of Defense's initiative to include a front line combatant force in the pilot series, the GEORGE WASHINGTON Battle Group was selected based upon its scheduled FY 96 training workup and deployment.

The challenge to quantitatively measure the performance of a complex and operationally dynamic organization like a Carrier Battle Group was a formidable task given the compressed time available and the lack of an institutionalized assessment process to measure aggregate level performance. A Fleet Working Group, composed of warfare community subject matter experts from the staffs of the Atlantic Fleet Headquarters, Commander, SECOND FLEET, and the GEORGE WASHINGTON Battle Group, was established to address this challenge. The result of their collective efforts was a prototype performance assessment model including the performance indicators and metrics designed to measure the Battle Group's capability to successfully execute the mission critical tasks set forth by the Chief of Naval Operations and approved by the Joint Chiefs of Staff.

Performance goals, both overall and in each selected critical task, were set by the Battle Group Commander for the duration of the scheduled six months overseas deployment. Formal data collection commenced on the Battle Group's departure from homeport in January 1996 and continued until its return in July 1996.

All performance goals were met and the prototype performance assessment software program proved successful in providing the Commander with an improved management tool to measure daily Battle Group operations. Based on the demonstrated success of the prototype system, we are refining and institutionalizing the measurement process in all Atlantic Fleet Carrier Battle Groups and Amphibious Ready Groups.

From the Fleet Commander in Chief perspective, the lessons learned from this pilot have provided our staff with invaluable, practical experience in performance measurement and a solid baseline from which we can conceptually link performance and resources.

II. Project Background

In response to DoD's initiative to include combatant force participation in the GPRA FY 96 Performance Plan pilot series, the Assistant Secretary of the Navy for Financial Management (ASN FM) nominated Commander in Chief, U.S. Atlantic Fleet (CINCLANTFLT) in October 1994 to participate as Navy's representative in the pilot project. To explore the feasibility of fully implementing GPRA within a combatant force, CINCLANTFLT nominated the GEORGE WASHINGTON Battle Group as the Navy's pilot activity based on its scheduled FY 96 training work up and overseas deployment. In January 1995, Director, Office of Manpower and Budget (OMB), approved the nomination of the GEORGE WASHINGTON Battle Group as an FY 96 participant.

In our initial status briefing to the Office of the Secretary of Defense (OSD) and OMB representatives, discussion centered on two factors related to our ability to fully engage in the GPRA performance plan pilot effort.

First, GPRA is focused on comparative assessment of outcome measures which for a combatant force would be optimally measured during actual combat operations. Although prepared to conduct contingency operations at a moments notice, Navy's Forward Presence Strategy is focused on deterring hostilities. A routine peacetime presence deployment thus would be expected to deny the opportunity to measure the outcomes of combatant force operations. The concept of measuring the "projected output capability" of the Battle Group to execute its mission critical tasks as a workable proxy was proposed and accepted by OSD and OMB.

Second, Navy has not quantitatively measured nor maintained historical data on Battle Group operations on a scale sufficient to support meaningful comparative assessment of individual Battle Group performance. We also have limited experience in attempting to quantify aggregate level performance within the Battle Group Commander's domain of constantly changing variables. Participation in a performance pilot of this scope and focus was truly akin to sailing uncharted waters.

CINCLANTFLT's Warfare Programs & Readiness Directorate (N8) was tasked to provide overall project direction, coordination and support for pilot plan development and implementation. Commander, GEORGE WASHINGTON Battle

Group was assigned pilot plan execution responsibility with CINCLANTFLT N8 providing support and assistance as necessary. CINCLANTFLT support for this
added tasking was provided from inplace staff resources, later augmented by the transfer of two civilian ceiling points from within the CINCLANTFLT claimancy. No added funding was provided to support this initiative. Developmental work in creating a performance assessment model and the associated performance indicators and metrics began in March 1995. The working group completed development of the performance indicator package in June and the prototype software program was installed on USS GEORGE WASHINGTON for test and evaluation in September 1995. Based on Battle Group staff recommendations, the software program was continuously refined during the training workup period with the "sail away" version for deployment installed in January 1996. Formal data collection for GPRA purposes commenced on departure for deployment on 27 January 1996.

III. Performance Plan Development and Execution

Chief of Naval Operations (CNO) Instruction 3501.316 of February 1995 provided the working group with the doctrinal foundation for development of the performance measurement plan. This instruction delineates Navy policy on those mission critical tasks a Carrier Battle Group must be capable of executing in both peacetime presence and contingency operations. Given the limited time available to meet OMB's 14 April submission date and CINCLANTFLT's objective of minimizing added workload on the deploying Battle Group staff, selective boundaries were imposed to judiciously control the scope of the tasking while ensuring the objectives of the GPRA pilot plan process were fully met. These subjective boundaries provided a framework for the working group and are described in detail in Appendix A.

The mechanism for developing the performance plan was a CINCLANTFLT and Commander, GEORGE WASHINGTON Battle Group co-chaired Performance Indicator & Metrics Fleet Working Group. Standing working group membership included warfare area subject matter experts (SMEs) from CINCLANTFLT, Commander, SECOND FLEET, and the GEORGE WASHINGTON Battle Group, carrier airwing, and destroyer squadron staffs. As specific mission critical task requirements dictated the need for additional expertise, the standing working group was augmented with selective SME representation from assigned aircraft squadrons, ships and submarines.

As stated, CNO Instruction 3501.316 provides approved policy on the required operational capabilities that a Carrier Battle Group must be able to demonstrate as a forward element of our National Military Strategy. These required capabilities are stated in the form of 13 Critical Tasks listed below:

Air Superiority	*Theater Ballistic Missile Defense*
Maritime Superiority	*Special Operations*
Power Projection	*Amphibious Operations*
Surveillance & Intelligence	*Land Forces Insertion*
Command & Control	*Mine Warfare*
Peacetime Presence	*Combat Search & Rescue (SAR)*
Sustainment	

Figure 1 illustrates the process model used by the Fleet Working Group to develop the Battle Group performance plan and its associated indicator & metrics package. The **critical tasks in bold** above were approved by

CINCLANTFLT N8 and the Battle Group Commander for inclusion in the performance plan. This was done purposefully to limit the tasking to a manageable level while ensuring the critical operational capabilities of the Battle Group were adequately addressed. Those *critical tasks in italics* were not selected for inclusion for various reasons. As examples, the GEORGE WASHINGTON Battle Group was not configured to conduct the *Theater Ballistic Missile Defense* mission; critical personnel and equipment capabilities needed to conduct *Combat SAR* and *Special Operations* were addressed in other selected critical tasks; and given that non-organic *Mine Warfare* forces (e.g., Mine Counter Measure ships and helicopters) are not routinely attached to the Battle Group, assessing day to day performance in that critical task would not have been possible.

PERFORMANCE PLAN MODEL

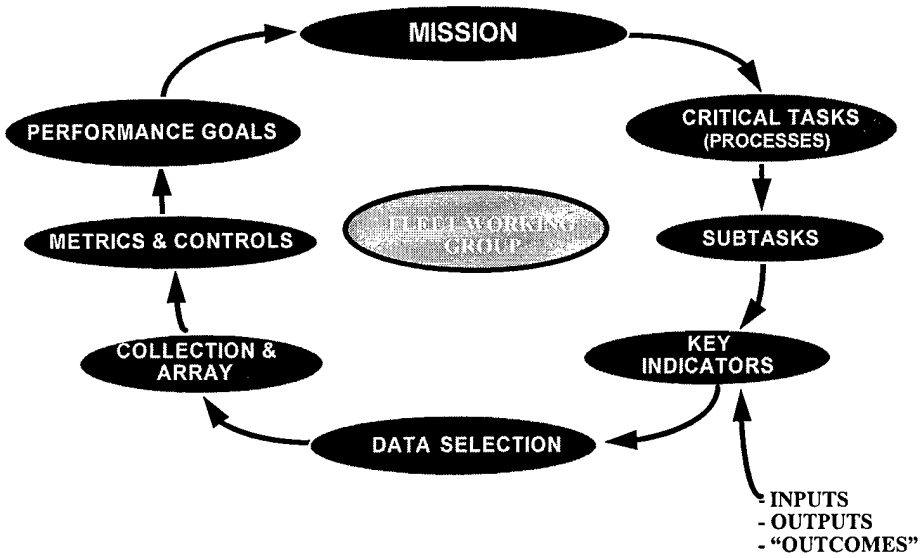


FIGURE 1

For each selected critical task, the supporting **subtasks** were reviewed by the working group for inclusion into the performance plan, again from the criteria of priority of importance in day to day operations and overall project plan manageability. Once a particular subtask was agreed upon for inclusion, discussion focused on the **key indicators** that would best capture how well the Battle Group was performing that particular subtask. As an agreed upon working group groundrule, key indicators could be inputs, outputs, or process/subprocess "outcomes".

It is important to mention another working group groundrule at this juncture. Given our lack of experience in aggregate level performance measurement and our objective of keeping the model as simple as possible, the performance indicators were not weighted. As experience and data accumulated during deployment, some minor program modifications were made to account for "natural weighting" in the configuration of the embarked airwing, e.g., four E-2C airborne early warning aircraft versus 50 F-14 and F/A-18 strike/fighter aircraft. Each type aircraft is essential to the airwing but the loss or non-availability of two E-2Cs in comparison to two F-14s or F/A-18s generates a far greater impact on force capability.

The **data selection** process was also governed by several criteria. First, no new data requirements were to be levied on the Battle Group staff. The data had to already exist. Second, the data had to be immediately available to the staff on the carrier in either hard copy or electronic format. Once these criteria were met, the working group then developed a graduated matrix for each subtask, defining the **metric breakpoints** for each indicator at specified levels of performance, i.e., Battle Group B-rating levels 1-5. As an example, Figure 2 illustrates the matrix developed for Air Superiority Subtask 3A - Detect, monitor, and maintain readiness to intercept aerial contacts - with the performance indicators arrayed horizontally at the top and the percentage breakpoints for B-rating levels 1-5 aligned vertically under each indicator.

AIR SUPERIORITY
Sub-task '3a' Matrix

		SHIP ES	AIRCRAFT			MISSION COMPLETION				LINK	%
	3D RADAR	SYSTEM	MC RATES			RATES			TRAP	EFFEC-	AIR
B-Rating	CASREPs	CASREPs	VAW	VF/VFA	VAQ/VQ	VAW	VF/VFA	VAQ/VQ	A_0	TIVENESS	UNK
1	0%	0%	90%	90%	90%	96%	96%	96%	95%	95%	0%
2	10%	10%	83%	83%	84%	92%	92%	92%	90%	90%	10%
3	20%	20%	75%	75%	77%	88%	88%	88%	85%	85%	20%
4	30%	30%	70%	70%	72%	84%	84%	84%	80%	80%	30%
5	>30%	>30%	<70%	<70%	<72%	<84%	<84%	<84%	<80%	<80%	>30%

FIGURE 2

Through close involvement in the developmental process, the Battle Group Commander provided sufficient philosophical guidance to ensure his

performance goals would be in conceptual alignment with the working group's effort.

Development and formal approval of the indicator/metrics package took approximately four months. This included development of the graduated B-rating architecture containing the Fleet Working Group developed performance indicators and breakpoints. Appendix B provides amplifying information on the Battle Group B-rating structure.

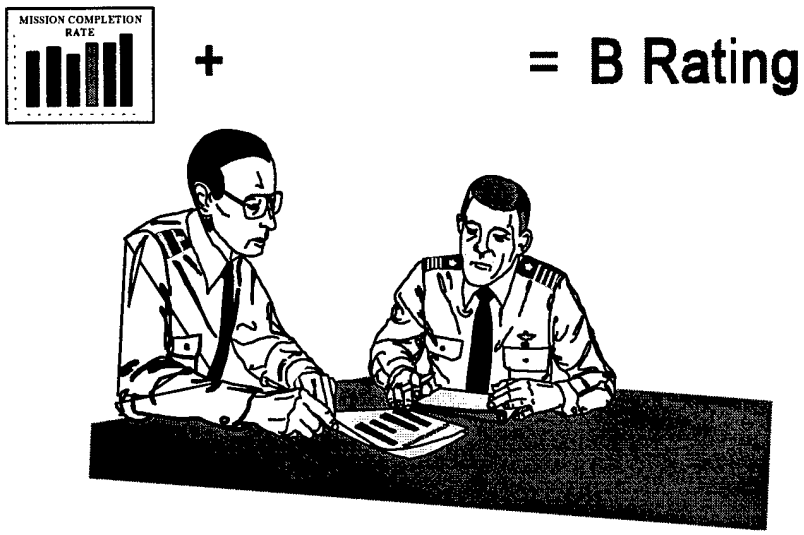
Given time and workload constraints, contractor assistance was used by the N8 Directorate to facilitate development and execution of the pilot project. Assistance was secured through an inplace contract vehicle and ensured the dedicated availability of Battle Group experienced analysts to meet project requirements. Contractor support was used to facilitate formulation of the performance plan; to develop the Battle Group Reporting System software program as the data collection vehicle; and to monitor day to day data collection efforts by the Battle Group staff.

IV. Performance Goals

As required by GPRA, the Battle Group Commander set his performance goals prior to the Battle Group's departure for overseas deployment. His stated goals were to maintain the GEORGE WASHINGTON Battle Group's overall performance at the B-2 level and at B-2 in each of the seven selected critical tasks for the duration of the deployment.

B-2 was selected as the benchmark for the Battle Group based on several factors. First, historical experience in Battle Group operations indicated that maintaining the higher B-1 performance level in all seven critical tasks over a six month period would be impractical given both cost and logistics supportability factors. Second, selecting B-2 as the "critical task" performance goal conceptually aligned our prototype, aggregate level performance assessment system to the unit level "mission" (M) readiness reporting norm of M-2, typically expected of a unit during deployed operations.

For individual ships, submarines, and aircraft squadrons, unit level readiness reporting is based on the Joint Chiefs of Staff's Status Of Resource & Training Systems (SORTS). Aside from our prototype system, no corollary system to SORTS is known to exist within DoD for aggregate force level reporting, e.g., a Carrier Battle Group.



V. Data Collection

Development, testing and installation of an EXCEL based software program to collect and manipulate performance indicator data took approximately four additional months. Formal, daily data collection commenced with GEORGE WASHINGTON Battle Group's deployment to the European and Central Command theaters of operation on 27 January 1996 and continued until the group returned home to the operational control of Commander, SECOND FLEET on 11 July 1996.

Battle Group performance data was collected daily as a routine process by designated Battle Group staff members throughout the deployment. Given the prototype nature of the software program, all data was inputted manually from a stand alone computer. Time was not available to develop and test a software program that would meet established criteria for hosting on the carrier's local area network (LAN). Although somewhat labor intensive, data entry for all indicators was completed in about one hour on average. Administrative coordination and data validation efforts required additional time.

The scope of the data collection process entailed the daily measurement of 280 performance indicators covering operational event scheduling results, weapons inventory versus allowance, subprocess performance outcomes, stock & liquid levels status, critical systems casualties, aircraft mission capable rates, and critical personnel availability versus allowance. These categories of indicators generated approximately 1,050 discrete daily data elements that were manipulated by the software program to generate the quantitative score in each subtask for rollup to the critical task level.

Figure 3 on the following page depicts the data collection process utilized in this pilot. The software system provided a time stamped audit of daily GEORGE WASHINGTON Battle Group (GWBG on Figure 3) performance in each critical task throughout the deployment. Raw input data, computed data, and subjectively overridden or annotated data were each separately archived in the software program.

Battle Group performance data was transmitted daily to CINCLANTFLT N8 through established satellite connectivity paths. Daily phone communication was maintained with the Battle Group staff project coordinator to ensure any software

deficiencies were rapidly corrected. Daily monitoring of the data collection effort by the N8 staff ensured the quality of the data was consistent throughout the deployment.

DATA COLLECTION PROCESS

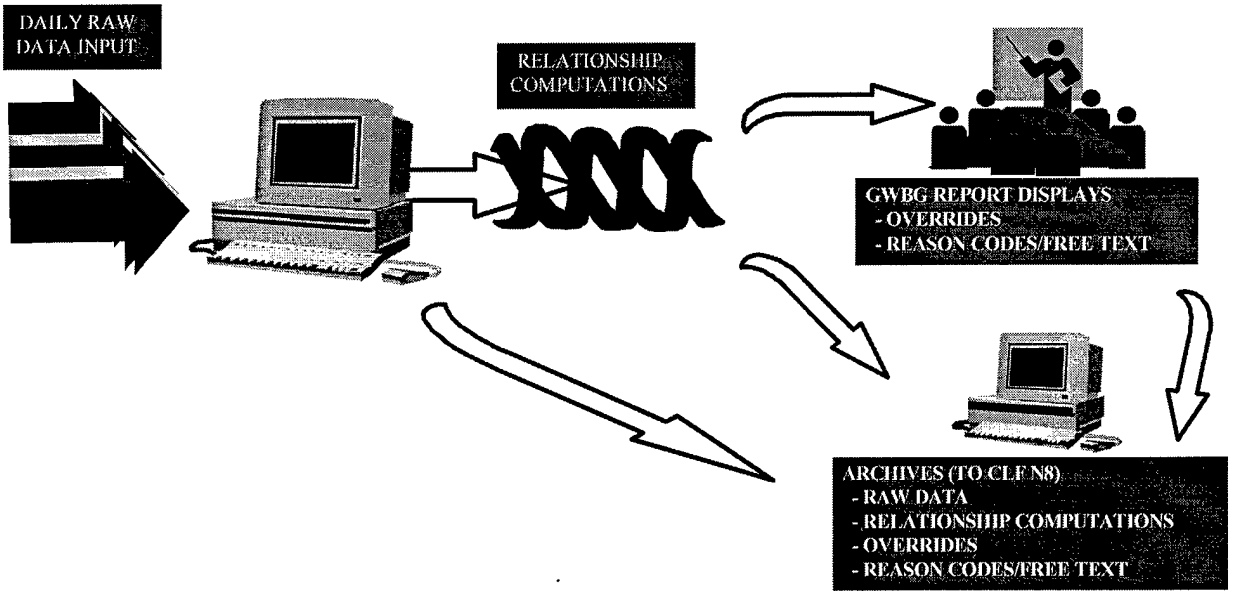


FIGURE 3

VI. Results

Figure 4 indicates that the stated performance goals of B-2 overall and B-2 in each of the seven critical tasks for the duration of the deployment were met or exceeded. Appendix B provides detailed information on the qualitative and quantitative definitions of the B-rating architecture.

PERFORMANCE GOALS & RESULTS

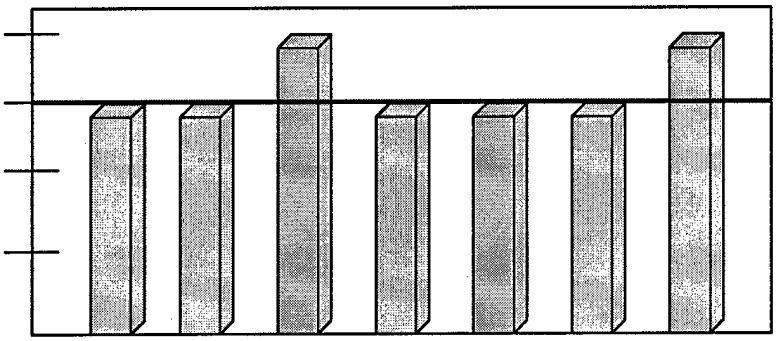


FIGURE 4

Given the dynamic nature of day to day Battle Group operations, periodic performance deviations below the B-2 level were experienced during the deployment. Deviations from the desired norm are not uncommon and are often beyond the Battle Group Commander's control, e.g., weather problems, Rules of Engagement changes, equipment casualties, etc.. Deviations from desired performance levels are closely monitored on a daily/hourly basis by the Commander and his staff for earliest correction. No significant performance degradations over a sustained period were encountered by the GEORGE WASHINGTON Battle Group that necessitate an explanation for "non-achievement" of stated goals. No "Command Overrides" of data computation results were exercised by the Battle Group Commander during the deployment.

It is necessary to reemphasize that this pilot project was our initial attempt to quantify a Battle Group's performance on a scale of this magnitude, i.e., number and breadth of performance indicators. Prior year quantitative data of similar

scope and quality was not available for a comparative assessment of the performance of the GEORGE WASHINGTON Battle Group with previous Battle Groups on similar deployments. Data collection during past Battle Group deployments has typically been limited to a small set of indicators focused heavily on airwing operations.

Appendix C contains sample displays provided by the Battle Group Reporting System. Included as examples are the executive level display of the seven critical tasks; a sample pull down display of the three Air Superiority Subtasks; Subtask B (Establish and Enforce No-Fly Zones) performance indicators & quantitative results; a sample trend display for Subtask B; an extract of the data archive file for Subtask B indicators; and Reason Code and Command Override input displays.

VII. Conclusions and Recommendations

The following conclusions and recommendations reflect the collective experiences and lessons learned by both the CINCLANTFLT N8 and GEORGE WASHINGTON Battle Group staffs over the duration of this pilot project.

a. Before committing any resources to an endeavor of this type and magnitude, the organization's leadership must make the commitment to add wisdom from the top to ensure the resultant process only collects/measures that which truly matters to the organization's mission.

b. Insufficient time and resources were available to fully prepare for a prototype effort of this magnitude. The development of performance indicators and metric standards requires dedicated senior management & SME involvement and resources. This pilot required two unprogrammed, full time exempt (FTE) staff ceiling points at CINCLANTFLT in addition to two dedicated contract support personnel. Development of a data collection vehicle tailored to the organization can be a major resource driver. Implementation of GPRA "out of hide" may well add to staff workload and operating costs and thus increase the risk of non-attainment of its intended goals.

- Recommend for future pilot programs that a minimum of a full year of preparation time be allocated to ensure resources will be available and inplace. Ceiling points and funding should be provided by the sponsoring federal agency.

c. Training in the philosophy and mechanics of developing a performance plan should have been provided to participating activities.

- Recommend that the Office of Personnel Management's GPRA training syllabus be provided to the government activity embarking on performance plan development.

d. Data collection must not be an end unto itself. Attempts to "measure the universe" must be scrupulously avoided. The manager should be provided with only that data that truly matters to the organization's mission. For combatant forces, the data collection effort must provide a value added dimension to the daily assessment process and not interfere with the Warrior's reason for being.

e. Undue complexity should be avoided in developing a model for management decision purposes. The KISS (Keep It Simple, Stupid) principle should guide the working group's efforts. Weighting of performance indicators must be thoughtfully considered to avoid biasing the model.

- Recommend avoiding adding complexity to performance model development until natural weighting relationships are observed as performance data accumulates.

f. The cultural change necessary for the organization to willingly embrace the concept of quantitative performance assessment can be achieved if the process is judiciously implemented. Conversely, if a quantitative assessment system is allowed to become a "report card" on manager/activity performance, then the benefits of GPRA will not be realized.

g. Performance of a combatant force can be quantitatively assessed. Due to the unique dynamics and variables facing the combatant commander, measuring a combatant organization requires more latitude in implementation than required in measuring a more static organization operating under standard business processes.

For this pilot, CINCLANTFLT developed the concept of "projected output capability" as a proxy for the "outcome measures" required by GPRA. This was necessary since performance measurement under the concept of "outcome measures" would have necessitated actual combat operations.

VIII. Summary

The GEORGE WASHINGTON Battle Group pilot was successful in providing the Battle Group Commander with a prototype quantitative performance assessment system that reasonably measured and aggregated selective Battle Group capabilities at a level more appropriate to the Flag level decision maker than the status quo, subjective assessment process. Based on the success of this pilot project, CINCLANTFLT is refining and institutionalizing the process in all its Carrier Battle Groups and Amphibious Ready Groups.

From the Fleet Commander in Chief perspective, the lessons learned from this pilot are providing our staff not only with practical experience in performance measurement but with a knowledge dividend on how we need to proceed in reinventing our cost accounting practices to forge the necessary linkage between performance and resources.

APPENDIX A

BOUNDARIES TO PILOT PLAN SCOPE

Due to the limited time and resources available to meet GPRA performance plan submission requirements, project boundaries were artificially set to control the scope of the pilot effort while still meeting the fundamental objectives of the GPRA performance plan pilot program. Boundaries to scope included the following:

a. Of the 13 critical tasks defined in governing CNO Instruction 3501.316 for a Carrier Battle Group, CINCLANTFLT chose to measure those seven that were considered most relevant to the specific capabilities and configuration of the GEORGE WASHINGTON Battle Group and most reflective of day to day operational requirements. The seven designated critical tasks included: **Air Superiority, Maritime Superiority, Power Projection, Command & Control, Surveillance & Intelligence, Sustainment, and Peacetime Presence.**

b. No new data collection requirements to support the GPRA pilot were levied on the Battle Group staff given the magnitude of competing operational requirements related to training workup and deployment.

c. The planned start time for the performance plan was set for September 1996 to conform with the FY 96 GPRA pilot window and the start of Intermediate Phase training for the GEORGE WASHINGTON Battle Group. Given the time needed for performance plan development, formulation and approval of a supporting indicators & metrics package, and creation of a data collection software program, the formal collection period commenced on departure for deployment in January 1996. Collection of valid performance data was limited to approximately six months.

d. Unit level manpower, personnel, and training (MPT) indicators were not heavily factored into the performance plan. Unit level training and Certification principally occur in the Basic Phase of the Navy's Inter-Deployment Training Cycle (Basic, Intermediate, and Advanced Phases of training). For the purposes of this pilot, the general assumption was that individual units (i.e., a ship, submarine, aircraft squadron) were adequately manned, trained and certified in unit level training requirements in order to enter

Intermediate Phase training as part of the Battle Group. Unit level MPT mission area ratings from the SORTS system were however selectively incorporated into the performance indicator data base as quantifiable inputs.

e. Cost data gathering and correlation to performance were not attempted in this pilot effort. Our effort focused on developing and operationally testing a prototype, quantitative performance assessment system designed to measure aggregate level, Battle Group mission capabilities. Future CINCLANTFLT initiatives will address the correlation of performance data to resources based on the experience gained in this pilot.

APPENDIX B

Battle Group Reporting System

The performance indicators chosen to measure aggregate level Battle Group capability in the seven selected mission critical tasks were the subject of benchmarking by the Fleet Working Group. To "measure" graduated levels of performance, a rating scale architecture was developed that intentionally mirrored that of SORTS, the JCS unit level reporting system. This path was primarily selected for two reasons - First, the prototype Battle Group level system was thought to have a greater chance of acceptance by the deploying Battle Group staff if conceptually in line with a "corporate culture" attuned to SORTS; and second, a general architectural alignment with SORTS would support potential incorporation of selected SORTS unit level readiness data, i.e., mission area M-ratings and equipment/system degradation C-ratings.

A Battle Group "B"-rating architecture was constructed with the following qualitative definitions:

B1 - Fully capable of doing an entire task or subtask

B2 - Minor degradation to overall capability

B3 - Major degradation to part of a capability or multiple minor degradations

B4 - Marginal capability to do an entire task or subtask

B5 - Unable to do a task or subtask

Through the SME working group process, each selected indicator was benchmarked to expected, quantifiable levels of performance for each B-rating level. Established standards of performance or policy for a given "task" or function where available were incorporated and interpolated breakpoints for each B-rating performance level developed. If a standard was not available, historical data was researched or subject matter expertise applied to develop the standard and its graduated performance breakpoints.

A uniform B-rating "range of computed values" scale was then constructed to quantitatively define the above narrative B-ratings as follows:

B1 - 00.0 - 1.00

B2 - 1.01 - 2.00

B3 - 2.01 - 3.00

B4 - 3.01 - 4.00

B5 - 4.01 - 5.00

Through daily data input and program computation, performance indicator results were calculated as "**Today**" values as shown on the sample task/subtask displays in Appendix C. As quantitative data for each indicator accumulated during deployment, a performance "**Average**" was calculated and displayed as the historical average to allow comparative assessment to "Today's" performance.

To qualify a performance degradation and archive it for data audit and retrieval purposes, a "Reason Code" structure with a free text feature was developed for use by the Battle Group staff. This "Archive By Degradation Cause" capability provided the Commander with a running audit of performance deficiencies for the deployment.

Recognizing that performance indicators are in fact only "indicators", a subjective "Command Override" capability was also built into the program to allow the Commander to "qualify the data" with his expert judgment if so desired. Program software routines allowed incorporation of this feature without disturbing the purity of the raw or calculated data in question.

Sample displays of both the "Reason Code" and "Command Override" features are included in Appendix C.

APPENDIX C

SAMPLE PROGRAM DISPLAYS

This appendix provides a series of sample "outcome" performance and management displays provided by the Battle Group Reporting System to the Battle Group Commander. The initial sequence of figures demonstrates the multi-level aspect of the reporting system as it cascades from the critical task level to subtask, specific performance indicators, and individual data cell levels. Also included are sample management displays for performance trend analysis, deficiency "Reason Code" annotation and archiving, and "Command Override" deficiency qualification.

Figure C-1 is the Executive Level summary display of the seven selected critical tasks. From left to right, it illustrates a color coded indicator of the current B-rating score (B-1 = green/green, B-2 green/yellow, B-3 yellow/yellow, B-4 yellow/red, & B-5 red/red); the seven critical tasks; the current B-rating "score" (e.g., B-2); the "Today" roll up averaged, numerical score from the supporting subtask level; and the historical "Average" score. A "dot" appearing with a current B-rating "score" (e.g., Maritime Superiority B-2) indicates a serious B-5 degradation at a lower subtask level. A pull down arrow at right (not shown) allows access to subtask and supporting performance indicator level displays which utilize the same structure.

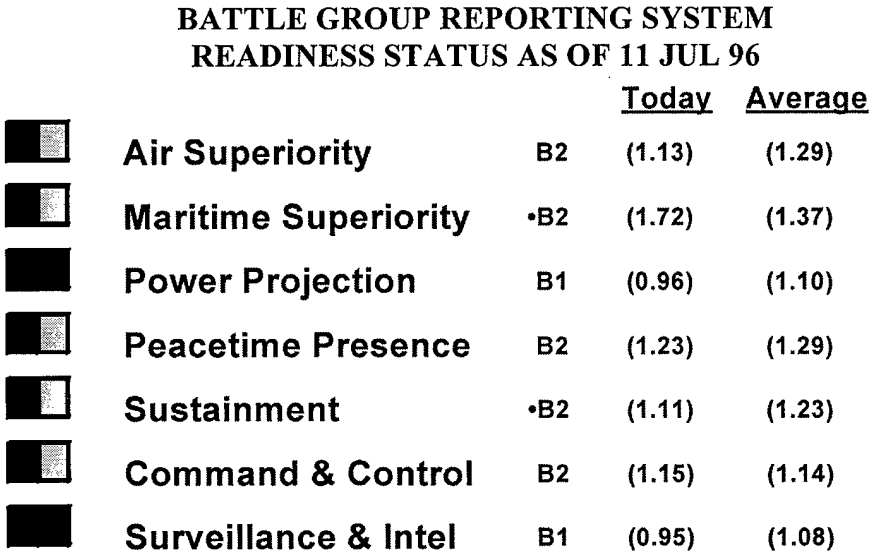


FIGURE C-1

Figure C-2 is the pull down display for the Air Superiority Critical Task. It shows the three supporting subtasks with the numerical score for "Today" and the historical "Average" score to date.

AIR SUPERIORITY
Seize and Maintain Control of Designated Airspace

			11 Jul 96 Today	Average
A	Detect, Monitor & Intercept Air Contacts	B2	(1.33)	(1.35)
B	Establish & Enforce No-Fly Zones	B1	(0.78)	(1.04)
C	Detect/Defeat Coord Multi-Axis ASM Attack	B2	(1.29)	(1.49)

FIGURE C-2

Figure C-3 provides the pull down display of performance indicators supporting Air Superiority Subtask B - Establish & Enforce No Fly Zones. This subtask uses the averaged score from Subtask A (Detect, monitor, & maintain readiness to intercept aerial contacts) plus indicators for critical equipment/systems availability reported as "percent available" and converted by the program to a B-rating score.

AIR SUPERIORITY - Subtask B
Establish and Enforce No-Fly Zones

				11 Jul 96 Today	Average
	Detect, Monitor, & Intercept Aerial Contacts Rating	B2	(1.33)	1.33	1.35
	Buddy Store MC Rate	B1	(0.00)	100.00%	96.75%
	Surf-Air System CASREPs	B1	(1.00)	0.00%	8.15%
	Surf-Air Ordnance Inventory	B2	(1.47)	90.32%	90.33%
	Air-Air Ordnance Inventory	B1	(0.09)	99.53%	99.80%

FIGURE C-3

Figure C-4 illustrates an extract of the data cell archive file for selected Subtask B indicators. Raw data is entered daily by designated staff members and archived into the data base for averaging and comparative analysis purposes.

ARCHIVE FILE EXTRACT

Line	Item	Unit	Mean	Start	1/27/96	1/28/96	1/29/96	1/30/96
187	Aircrew Assigned - (Tot Off & Enl)	VFA 136	16.00		16	16	16	16
187	Aircrew Assigned - (Tot Off & Enl)	VA 34	33.00		33	33	33	33
187	Aircrew Assigned - (Tot Off & Enl)	VAQ 140	26.00		26	26	26	26
187	Aircrew Assigned - (Tot Off & Enl)	VQ 6-2	15.00		15	15	15	15
187	Aircrew Assigned - (Tot Off & Enl)	HS 5	48.00		48	48	48	48
187	Aircrew Assigned - (Tot Off & Enl)	VRC 40-2	12.00		12	12	12	12
187.1	Aircrew Not Avail for Msn - (Tot Off & Enl)	VAW 121	2.00		2	2	2	2
187.1	Aircrew Not Avail for Msn - (Tot Off & Enl)	VS 31	3.80		4	4	4	4
187.1	Aircrew Not Avail for Msn - (Tot Off & Enl)	VF 143	0.00		0	0	0	0
187.1	Aircrew Not Avail for Msn - (Tot Off & Enl)	VFA 131	0.00		0	0	0	0
187.1	Aircrew Not Avail for Msn - (Tot Off & Enl)	VFA 136	0.00		0	0	0	0
187.1	Aircrew Not Avail for Msn - (Tot Off & Enl)	VA 34	1.00		1	1	1	1
187.1	Aircrew Not Avail for Msn - (Tot Off & Enl)	VAQ 140	0.00		0	0	0	0
187.1	Aircrew Not Avail for Msn - (Tot Off & Enl)	VQ 6-2	0.80		0	0	0	2
187.1	Aircrew Not Avail for Msn - (Tot Off & Enl)	HS 5	2.20		2	2	2	2
187.1	Aircrew Not Avail for Msn - (Tot Off & Enl)	VRC 40-2	0.00		0	0	0	0
135	# of Buddy Stores MC	GW	18.00		18	18	18	18
135.1	# of Buddy Stores Assigned	GW	18.00		18	18	18	18

FIGURE C-4

Figure C-5 provides a sample of the trending display capability of the Battle Group Reporting System for Subtask B. The vertical axis displays the score range with the blue line showing the average score for the indicator over time as displayed on the horizontal axis.

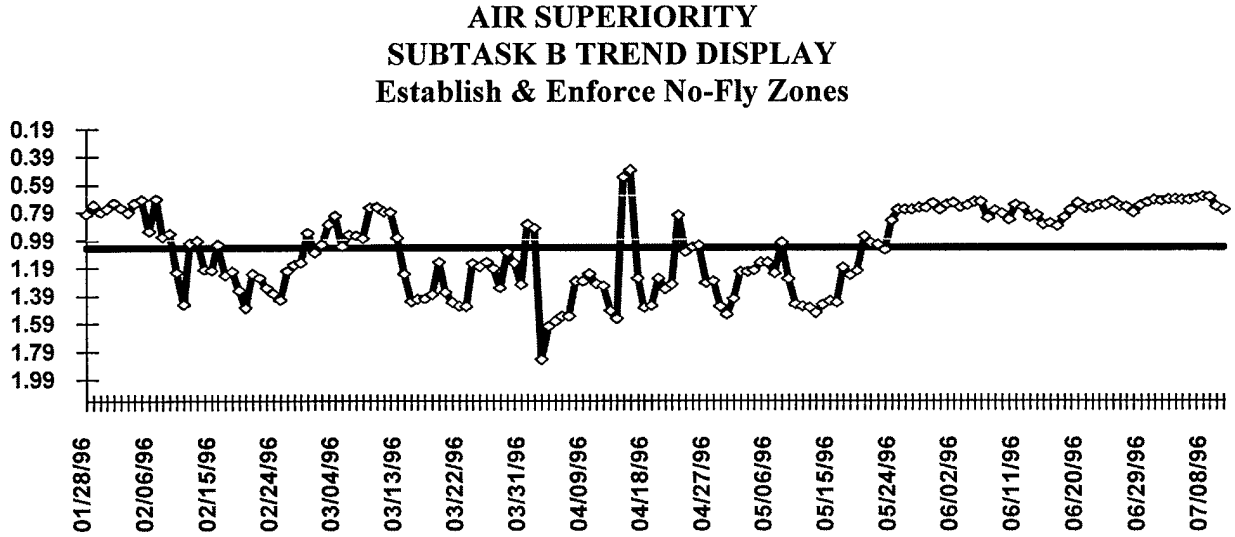


FIGURE C-5

Figure C-6 is the "Reason Code" display used by the staff action officers to document performance deficiencies. Six reason code "bins" are provided to categorize degradations by type cause. A free text capability allows the action officer to explain the degradation, operational impact, and expected time of correction.

REASON CODE

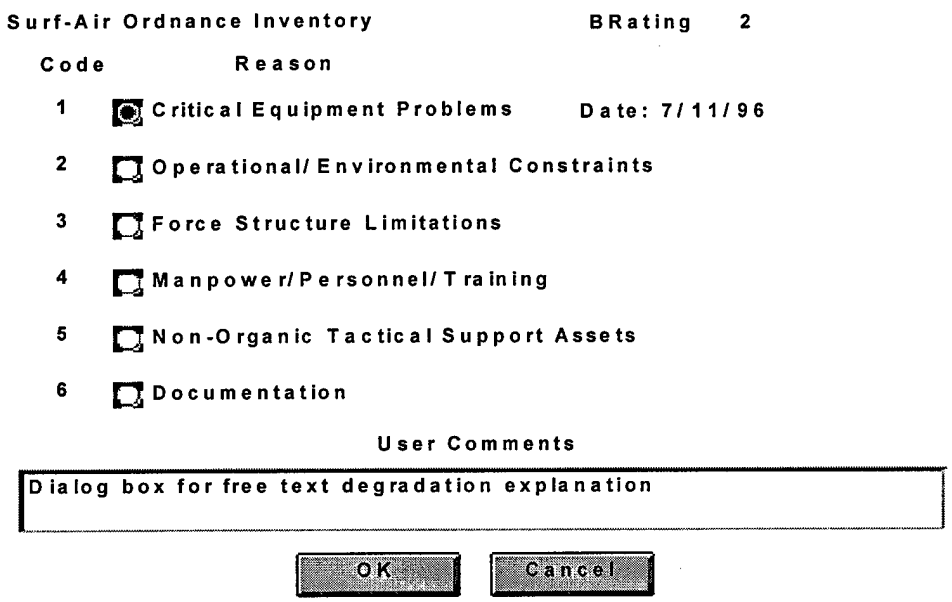


FIGURE C-6

Figure C-7 is the final display and is designed to allow the Battle Group Commander or his principal warfare commanders to "override" the current numerical score for an indicator based on expert judgment. Exercising this option changes the B-rating color code display but does not change the computed score for the indicator. A "flag" is provided on the display to indicate the override function has been exercised.

COMMANDER'S OVERRIDE

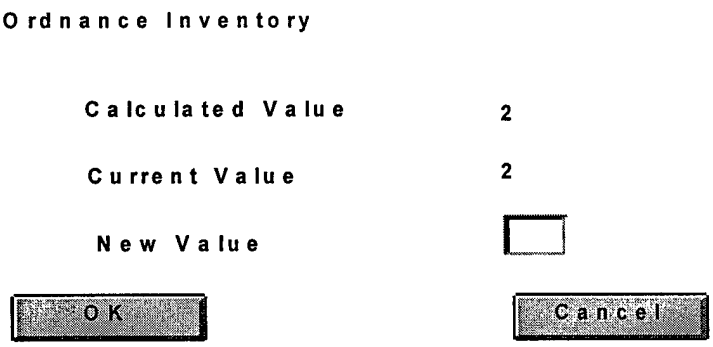


FIGURE C-7