# NAVAL HEALTH RESEARCH CENTER

## *NAVY PHYSICAL READINESS TEST:*

## *EVALUATION OF THE COMMAND SUMMARY REPORT*

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**Navy Physical Readiness Test: Evaluation of the Command Summary Report**

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## Executive Summary


**Problem**

Although all Navy commands are directed by OPNAVINST 6110.1D to submit annually the Physical Readiness Test (PRT) Command Summary Report, compliance is poor; approximately 35-50% of Navy commands fail to submit this form in any given year. Thus, the Bureau of Naval Personnel (PERS-60) is interested in gathering information on how to modify the Command Summary Report to improve compliance, as well as to make it more useful to commanding officers.

**Objective**

The objectives of this study were to gather information regarding: (a) physical readiness testing procedures, (b) remedial programs, (c) command attitudes, (d) data collection/preparation, and (e) recommendations for modifications of physical readiness test data collection/preparation that would make the process more useful at the command level and improve reporting compliance to Bureau of Naval Personnel (BUPERS).

**Approach**

A stratified sampling procedure was used to select 474 commands for inclusion in this study. From these commands, 343 Command Fitness Coordinators (CFCs) responded by completing questionnaires that were divided into five areas of analysis as listed above. Analysis of these data consisted primarily of descriptive statistics and significance testing across types of commands (i.e., ship vs. shore, large vs. small).

**Results**

While the majority of CFCs reported that they conducted the PRT, CFCs at shore commands reported that they conducted the PRT more frequently, while nonshore commands had a greater percentage of command personnel participating in each session. CFCs at small commands reported taking the PRT more frequently and had a greater percentage of command personnel participating in each session than large commands. CFCs at shore commands reported having the greatest percentage of personnel not participating in the PRT due to medical waivers. Nonshore (i.e., surface ship, submarine, and air) CFCs reported having the greatest percentage of personnel not participating in the PRT due to no-shows. Most CFCs reported that their command offered incentives to score an "outstanding" on the PRT. However, only half of the CFCs stated that incentives were offered to demonstrate improvement on the PRT, with small commands offering these incentives more frequently. Most CFCs reported some type of negative consequence for failing the PRT, but no statistical differences were observed for either the size or the type of command.

Nearly all of the CFCs surveyed reported having conducted remedial programs for those personnel who failed some aspect of the PRT. With

respect to running/walking programs, shore commands required more frequent attendance and CFCs rated this program's effectiveness higher than did nonshore CFCs. Similarly, CFCs at shore commands reported that nutrition/diet counseling was offered more frequently than nonshore commands, and CFCs rated this form of remedial training as more effective. Strength/flexibility training was rated by CFCs as more effective at large commands. Additionally, large commands offered aerobic remedial training more often than did small commands, while shore commands offered aerobics less often than nonshore commands.

Command attitudes toward the PRT proved to be a very important factor in the perceived physical readiness of the command. Specifically, after controlling for the size and type of command, regression modeling suggested that the perceived physical fitness of the commanding officer was significantly associated with the CFC's assessment of the physical readiness of the command. Moreover, commands that were rated by their CFCs as having effective remedial training programs, and had a higher percentage of personnel taking the PRT were predictive of a higher CFC rating in physical readiness. Conversely, commands rated higher in physical readiness were less likely to require attendance at nutrition/diet programs.

The computer software that CFCs use to help gather and compute information for the Command Summary Report appears to be helpful. More than 90% of CFCs who reported using the software also stated that they submitted the Command Summary Report. Despite the wide use of the computer software, over one quarter of the CFCs surveyed reported using a combination of software, hand calculations, and other techniques.

**Conclusions**

Modifications to improve reporting the PRT information to PERS-60 could include: (1) allowing CFCs to submit the completed Navy computerized PRT summary in place of the Command Summary Report, (2) modifying the existing computer software, and (3) reducing the number of personnel for which PERS-60 must account by reporting only those individuals who are "out of standards." Methods to help PERS-60 process and summarize the PRT data could include: (1) accepting the Navy PRT software output in place of the Command Summary Report, or (2) converting the existing Command Summary Report to be compatible with optical scanning equipment.

**Navy Physical Readiness Test: Evaluation of the Command Summary Report**

## Introduction

The Chief of Naval Operations established the Health and Physical Readiness Program (HAPR) to actively support more healthful life-styles and assess the operational readiness of the Navy by completing the Physical Readiness Test (PRT)[1]. As stated in OPNAVINST 6110.1D [2], all Navy commands are directed to submit annually the Physical Readiness Test Command Summary Report, which summarizes the results of that command's PRT. The information submitted on this form includes the number of officers and enlisted personnel, number of medical waivers for the PRT, number of individuals completing the PRT, number of over fat and obese individuals, and number of individuals who have failed various components of the PRT. This form provides information the Bureau of Naval Personnel (PERS-60) needs to submit for its required Navy and DoD reports addressing the physical readiness of the naval force.

Although submission of this form is mandated by OPNAVINST 6110.1D [2], compliance is poor. According to PERS-60, approximately 35-50% [3] of Navy commands fail to submit this form in any given year. Information on how to modify the Command Summary Report to make it more useful to commanding officers may help improve reporting compliance. Alternative methods to increase reporting compliance and reliability also need to be explored.

To help assess reasons related to the poor compliance rate in submitting the Command Summary Report, the current study examined two factors involved in conducting and completing various aspects of the PRT. First, this study examined the PRT procedures as conducted in the field (i.e., physical readiness testing procedures, physical readiness remedial programs, and physical readiness data collection/preparation). Second, this study examined relevant issues associated with completing the Command Summary Report (i.e., usefulness to commanding officers, reporting command PRT information to PERS-60, and processing and summarizing the command PRT summary). Other issues were also explored, such as whether actually conducting the PRT interferes with the ability of personnel to complete the Command Summary Report. There may also be problems with the Command Summary Report itself that makes its completion difficult. In addition, it is possible that the particular attitude a command implicitly or explicitly maintains toward the PRT may also affect the rate of compliance.

In summary, the purposes of this study were to assess how to improve compliance in submitting the Command Summary Report to PERS-60, and to

improve the utility of the Command Summary Report to commanding officers. To accomplish these objectives, this report will address: (a) physical readiness testing procedures, (b) remedial programs, (c) command attitudes, (d) data collection/preparation, and (e) CFCs recommendations for modifications of PRT data collection/preparation that would make the process more useful at the command level and improve reporting compliance to BUPERS.

## Methods

### Study Sample

Initially, 474 CFCs were selected from the Navy's 7,666 unit identification codes (UICs) to survey compliance with the HAPR policy and overall satisfaction with the procedure for reporting the PRT results. To select these 474 CFCs, a stratified procedure based on command size was employed. Specifically, there were 4,688 UICs that had less than 25 naval personnel assigned. To prevent oversampling, all UICs with less than 25 naval personnel were excluded from selection. Additionally, there were 2,729 UICs with 25 to 524 naval personnel assigned. To further prevent oversampling of these small UICs, a computer systematically selected every twelfth UIC until 225 were identified. Lastly, there were 249 UICs with 525 or more naval personnel assigned. All of these UICs were selected for inclusion in this study.

A questionnaire was mailed to each of the CFCs at the 474 UICs. Eight weeks after the initial questionnaires were mailed, postcards were sent to remind CFCs to complete the questionnaire. If they had already completed the questionnaire they were thanked for their participation in the study and no further action was required.

Of the original 474 UICs, 13 had been decommissioned, 9 responded too late to be included in the data analysis, 2 reported they did not conduct the PRT because individuals were assigned there for a very limited time, and 11 reported that their PRT was conducted under larger, parent commands. From the remaining 439 UICs, 343 CFCs responded to the questionnaire for a response rate of 78.13%.

### Data Collection and Analysis

The PRT Questionnaire sought anonymous responses which contained 22 questions that were divided into five areas: (a) physical readiness testing procedures, (b) physical readiness remedial programs, (c) general command attitudes, (d) PRT data collection/preparation procedures, and (e) recommendations for modifications of PRT data collection/preparation procedures. The criteria for significance was determined a priori at $p<.05$. Questions that requested CFCs to provide a written response were reviewed and the frequency recorded by the primary investigator and grouped according to their similarity. UICs were stratified into "large" (i.e., greater than 524 personnel) or "small" (no less than 25, but no

more than 524 personnel) commands, and "shore" or "nonshore" (i.e., surface ship, air, and submarine) commands for some analyses.

## Results

### Physical Readiness Testing Procedures

Nearly all (99.7%) of the CFCs reported that their command conducted the PRT. Of those commands conducting the PRT, 0.9% administered the PRT once a year, 95.0% administered the test twice a year, and 3.8% administered it four times a year. As shown in Table 1, t-tests revealed that shore commands conducted the PRT with greater frequency than nonshore commands. Small commands conducted the PRT with greater frequency than large commands. CFCs responded that an average of 86.8% of the personnel at their commands participated in the PRT, with nonshore commands having the largest percentage of personnel taking the PRT when compared to shore commands. Additionally, small commands reported having the largest percentage of personnel taking the PRT when compared to large commands.

The most common reasons given for non-participation in the PRT were: (a) medical waiver (5.1%), (b) no-show (1.2%), (c) temporary additional duty (TAD) during test time (2.1%), and (d) other reasons (1.7%). Shore commands reported a statistically higher number of personnel not taking the PRT due to medical waivers than nonshore commands. Nonshore commands reported a higher number of personnel not taking the PRT due to the participant not showing up than did shore commands. All other statistical comparisons on these data were not significant.

Incentives to pass the PRT at the highest level (Outstanding) were reported by 84.5% of the CFCs. The most frequently reported incentives included recognition in the form of: (1) letters, trophies, plaques, or certificates of achievement (66.4%), (2) special liberty (31.3%), (3) evaluation/fitness report entry (10.5%), and (4) recognition at quarters (5.0%). While only 42.7% of CFCs reported that their commands offered incentives to improve PRT performance to a higher level from one test to the next test, small commands offered these incentives more frequently than large commands. No other statistically significant differences between command size or command type for these data were found.

Negative consequences for failing the PRT were reported by 86.2% of the CFCs. The most frequently reported negative consequences were: (1) participation in Level I remedial conditioning program (as mandated by OPNAVINST 6110.1D [2]) (70.1%), (2) notation of poor performance in evaluation/fitness report (29.5%), and (3) administrative remarks (page 13 entry) (30.1%). No statistically significant differences between command size or command type for these data were found.

CFCs reported an average total work time of 48.6 hours per week. CFCs at nonshore command reported working more total work hours when compared to shore commands. During this work time, CFCs stated they spent an average of 11.3% of their work hours actually conducting the PRT and 20.5% of their time doing the paperwork associated with the PRT. Large commands reported spending a greater percentage of work time than small commands actually conducting the PRT. Large commands also reported a greater percentage of work time than small command completing the paperwork associated with the PRT. This finding is consistent with the expectation that larger commands would need to spend a greater proportion of their time on the PRT due to the greater number of personnel.

Overall, 99.4% of CFCs felt they were familiar with OPNAVINST 6110.1D regarding the status for promotion/advancement and frocking for those personnel who had failed the PRT or had been diagnosed as obese.

**Physical Readiness Remedial Programs**

The remedial programs outlined in the PRT instruction included: (1) running/walking, (2) counseling in nutrition/diet, (3) exercises for strength/flexibility, and/or (4) aerobics. Responses indicated that 97.6% of commands offered a running/walking remedial program. Of these, 96.0% made attendance mandatory for PRT failures and overfat/obese personnel. As shown in Table 2, shore commands required this more often than nonshore commands. Additionally, 97.0% of CFCs reported the running/walking remedial program was open to everyone. CFCs rated the running/walking remedial program as either not effective (4.4%), fairly effective (60.1%), or very effective (35.5%). CFCs at large commands rated the running/walking remedial program as more effective than did CFCs at small commands. CFCs at shore commands rated this program more effective than did CFCs at nonshore commands.

Nutrition/diet counseling was offered as a remedial program at 85.2% of the commands surveyed. Shore commands offered this program more frequently than nonshore commands. For commands offering this form of remedial training, 53.9% of CFCs reported attendance was mandatory. Moreover, 86.5% of CFCs reported that nutrition/diet remedial training was open to everyone.

**Table 1. Physical Readiness Testing Procedures**

| | Shore | | Nonshore | | Large | | Small | |
|---|---|---|---|---|---|---|---|---|
| | **Mean** | **SD** | **Mean** | **SD** | **Mean** | **SD** | **Mean** | **SD** |
| Number of times taking PRT per year | 2.11* | .468 | 2.00 | .217 | 2.02 | .175 | 2.10* | .484 |
| Percentage of personnel taking PRT each cycle | 85.5 | .606 | 88.75* | .514 | 84.5 | .588 | 88.50** | .484 |
| Percentage of reasons for non-participation in PRT: | | | | | | | | |
| a) Medical | 6.11*** | 4.89 | 3.30 | 3.16 | 5.02 | 4.36 | 5.10 | 4.64 |
| b) No-show | .88 | 1.96 | 1.64* | 3.18 | 1.43 | 2.17 | 1.00 | 2.77 |
| c) TAD | 1.87 | 3.20 | 2.57 | 5.26 | 2.21 | 2.60 | 2.11 | 4.89 |
| d) Other | 1.87 | 2.97 | 1.43 | 3.50 | 2.19 | 4.10 | 1.43 | 2.42 |
| Percentage offering incentives to pass PRT to a higher level | 57.5 | .357 | 58.0 | .372 | 74.0 | .502 | 81.5** | .483 |
| Total hours worked per week by CFC's (all duties) | 45.36 | 8.40 | 54.05** | 16.59 | 49.86 | 13.86 | 47.77 | 12.03 |
| Percentage of time conducting PRT | 11.72 | 13.50 | 10.52 | 12.51 | 15.28*** | 14.35 | 8.74 | 11.68 |
| Percentage of time completing PRT paperwork | 22.57 | 26.85 | 17.25 | 22.04 | 32.87*** | 30.02 | 12.77 | 17.80 |

***p < .001
**p < .01
*p < .05

**Table 2. Physical Readiness Remedial Programs**

| | Shore | | Nonshore | | Large | | Small | |
|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| Availability of Run/Walk Program | 1.02 | .138 | 1.03 | .177 | 1.02 | .169 | 1.02 | .125 |
| a) required if failed PRT | 1.02** | .139 | 1.07 | .263 | 1.07 | .243 | 1.03 | .157 |
| b) effectiveness of program | 2.36* | .512 | 2.22 | .601 | 2.39* | .569 | 2.26 | .535 |
| Availability of Nutrition/ diet Program | 1.10*** | .296 | 1.23 | .425 | 1.11 | .312 | 1.67 | .375 |
| a) required if failed PRT | 1.43 | .496 | 1.52 | .502 | 1.47 | .501 | 1.45 | .499 |
| b) effectiveness of program | 2.05** | .542 | 1.88 | .652 | 2.03 | .591 | 1.96 | .583 |
| Availability of Strength/ flexibility | 1.06 | .243 | 1.10 | .297 | 1.04 | .196 | 1.10 | .297 |
| a) required if failed PRT | 1.13 | .337 | 1.20 | .399 | 1.15 | .354 | 1.16 | .368 |
| b) effectiveness of program | 2.27 | .550 | 2.19 | .675 | 2.35** | .606 | 2.17 | .586 |
| Availability of Aerobic Program | 1.18 | .385 | 1.31** | .464 | 1.17* | .373 | 1.27 | .444 |
| a) required if failed PRT | 1.51 | .501 | 1.43 | .497 | 1.43 | .498 | 1.51 | .501 |
| b) effectiveness of program | 2.27 | .550 | 2.16 | .675 | 2.26 | .702 | 2.21 | .660 |

***p < .001
**p < .01
*p < .05

All Programs

Availability
Required
Effective

Values

1=yes 2=no
1=yes 2=no
1=not 2=fairly 3=very

CFCs rated the nutrition/diet remedial program as either not effective (17.7%), fairly effective (65.6%) or very effective (16.7%). CFCs at shore commands rated this form of remedial training as more effective than did the nonshore commands. No statistically significant differences were observed for the size of the commands.

Concerning the availability of remedial strength/flexibility programs, 92.5% of CFCs reported that their commands offered this type of remedial training. Of these commands, 84.6% of CFCs reported attendance was mandatory. Additionally, 95.6% of CFCs reported the strength/flexibility remedial program was open to everyone. CFCs rated the strength/flexibility program as either not effective (8.6%), fairly effective (58.5%), or very effective (32.9%). CFCs at large commands rated this form of remedial training as more effective than did small commands. There was no statistical difference observed between shore and nonshore commands.

Lastly, 77.2% of CFCs reported that their command offered an aerobic remedial training program. CFCs at large commands reported offering aerobic remedial training more often than did small commands. However, shore commands offered aerobic remedial training less often than did the nonshore commands. Of these commands, only 51.7% of CFCs reported attendance was mandatory and 83.8% of CFCs stated this aspect of remedial training was open to everyone. CFCs rated the aerobic program as either not effective (13.9%), fairly effective (49.1%), or very effective (37.0%). No statistical differences with regard to the size or type of command were observed in the effectiveness of this program.

**CFC Perceptions of Physical Readiness and Command Attitudes**

CFCs reported they perceived the attitude of their commanding officer toward the PRT as follows: (1) the PRT is very important, 68.7%, (2) the PRT is important, 20.5%, (3) the PRT is neither important or unimportant (neutral), 5.3%, (4) the PRT is unimportant, 2.0%, and (5) the PRT is very unimportant, 3.5%. An analysis of variance (ANOVA) was performed on these data to assess the possible effects the size or type of command may have upon the perceived importance of the commanding officer's attitude toward the PRT. Specifically, a 2 (large vs. small command) x 2 (shore vs. nonshore command) ANOVA revealed no significant main effects or interaction.

CFCs reported they perceived the physical fitness of their commanding officer as follows: (1) 46.9% reported their commanding officer was in outstanding condition, (2) 24.7% were in excellent condition, (3) 19.5% were in good condition 8.0% were in satisfactory condition, (4) and 0.9% were in unsatisfactory condition. A 2 (large vs. small command) x 2 (shore vs. nonshore command) ANOVA was conducted upon these data. No significant main effects or interaction were observed.

When asked to evaluate the perceived physical readiness of their particular command, only 9.1% of CFCs reported their command as being in outstanding condition. However, 41.5% of CFCs reported their personnel were in excellent condition; 37.1% of personnel were in good condition; 11.7% were in satisfactory condition; and 0.6% were in unsatisfactory condition. A 2 (large vs. small command) x 2 (shore vs. nonshore command) ANOVA failed to demonstrate any significant main effects or interaction.

Finally, 81.7% of CFCs reported that they believed the PRT was administered fairly to all personnel. However, 18.3% believed that some personnel (e.g., senior officers and senior enlisted) were given special treatment in performing/scoring the PRT.

In order to more fully examine the factors associated with the physical readiness of a command, a multiple stepwise regression was performed with physical readiness of the command as the dependent variable (see Table 3). Analysis revealed that the primary factors associated with the physical readiness of a command were: (1) perceived physical fitness of the commanding officer, (2) effectiveness of all remedial training programs (i.e., running/walking, counseling in nutrition/diet, exercises for strength/flexibility, and aerobics), (3) required attendance at a remedial nutrition/diet program, and 4) the percentage of personnel at the command taking the PRT each cycle.

Table 3. Stepwise Multiple Regression - Physical Readiness of Commands

| Variable | B | Multiple R | $R^2$ | F | P |
|---|---|---|---|---|---|
| Physical fitness of CO | .342 | .446 | .199 | 40.45 | .0001 |
| Effectiveness of all remedial programs | .229 | .513 | .263 | 28.87 | .0001 |
| Required attendance at remedial nutrition/diet | -.166 | .542 | .294 | 22.36 | .0001 |
| Percentage personnel taking the PRT | .155 | .563 | .317 | 18.58 | .0001 |

**PRT Data Collection/Preparation**

To help satisfy the requirements stated in OPNAVINST 6110.1D [2], the Navy supplies CFCs with computer software designed to track individual performance and health status. When asked if they were in possession of this software, 92.1% of all CFCs responded in the affirmative; however, slightly fewer (91.3%) of all CFCs responded that they actually use the

software. Of those CFCs who actually use the computer software, 94.3% sent the Command Summary Report to BUPERS. Interestingly, only 2.8% of those CFCs who reported not using the software sent the summary report to BUPERS. There were no statistical differences for either the size or the type of command.

Computer software is not the only method employed for the preparation of PRT data. Specifically, while 70.2% of the CFCs use only the software provided by the Navy, 28.8% reported they use a combination of software and hand calculation techniques, and 0.9% reported using other methods.

Although OPNAVINST 6110.1D [2] requires commands to submit annually the results of the second PRT cycle, there appears to be some variation in the reporting of these data. Only 30.6% of CFCs reported that they submitted the results of the PRT for the second cycle. Alternatively, 18.4% of CFCs reported submitting the results for the first cycle, 42.0% reported they submitted the data for both PRT cycles, and 6.1% stated that they failed to submit any PRT data.

## CFCs' Recommendations for Modification of PRT Data Collection/Preparation

### Usefulness To Commanding Officers

CFCs were asked what changes, if any, they would make concerning the command summary form on which the results of the PRT are reported; 26.2% of CFCs responded. Review of the written responses of the CFCs indicate three primary problems: (1) the summary has certain sections that are very time-consuming to complete, especially for large commands (13.5%), (2) the summary form does not provide commanding officers with information about particular individuals who may be "out of standards" (18.3%), and (3) the summary form does not provide commanding officers with information about individuals who may be chronically failing the PRT (18.3%).

CFCs suggested several changes to facilitate filling out the Command Summary Report. Section 3.C (i.e., "Number of personnel not tested due to: Other") was cited as being too general. "Other" could be divided into several specific sections to account for personnel over the age of 50, no shows, pregnancy, TAD, and new members transferring to the command. This expansion could provide valuable information to the commanding officer by listing more specific reasons why command personnel did not complete the PRT. For example, while personnel not taking the PRT due to their age is not a leadership problem for the commanding officer, personnel failing to participate in the PRT for no apparent reason may be a leadership issue.

Sections 8 through 11 (number of personnel diagnosed obese, number of personnel assigned to a conditioning/rehabilitation program, number of

personnel not recommended for frocking/promotion/advancement, number of personnel not eligible for reenlistment/redesignation due to failing PRT or being overfat/obese) were cited by CFCs as being the most difficult sections to complete because the information was extremely time-consuming to ascertain (e.g., manually sorting through records, consulting with assistants to the CFC program or medical departments, or identifying records as having never been kept) and very often required hand calculations. This problem appeared to be worse for larger commands. One CFC suggested that for commands with more than 300 personnel, the CFC should be a full-time job rather than a collateral duty.

According to responding CFCs, the summary form also does not provide commanding officers with information about particular individuals who may be "out of standards" and require more individual attention. To support this change, Section 6 (i.e., number of persons failing to meet standards) could be expanded. It may be more useful to commanding officers to know specifically who is not within standards rather than receiving only a numerical count. This knowledge could be especially helpful to a commanding officer in directing specific counseling and/or remedial training for command personnel, thus allowing the commanding officer to assume a larger leadership role in support of the PRT program.

Similarly, CFCs indicated Section 6 could be expanded to not only provide information regarding which individuals have failed a specific portion of the PRT, but also to monitor the progress of these individuals. This would allow the commanding officer to know which members of the command have demonstrated a history of being "out of standards" and who need additional assistance.

**Reporting Command PRT Information**

Only 21.9% of CFCs responded to this question. Given the difficulties encountered with the Command Summary Report cited above, the most frequent suggestion (20.2%) made by responding CFCs was to abandon the use of this form and simply submit the computerized report. That is, CFCs would enter all command PRT data via the software provided by the Navy, and mail the computer diskette directly to PERS-60. These data could then be entered into a Navywide database used to assess the physical fitness of all personnel. Several CFCs (4.1%) suggested that in addition to using the Navy software, the PRT data could be sent directly via a computer modem.

While CFCs have cited utilization of the Navy PRT software as a potential method to improve reporting of command PRT information, they also have reported numerous problems associated with the computer software. Resolution of these problems would greatly improve the efficiency and ease with which the PRT data could be reported. Specifically, these problems may be divided in four areas: (1)

difficulty tracking certain individuals (9.6%), (2) difficulty inputting data (13.5%), (3) difficulties calculating PRT data (3.8%), and (4) difficulties printing results of the Command Summary Report (5.8%).

CFCs identified eight specific problems associated with tracking certain individuals: (1) cannot track personnel by rate/rank, (2) cannot separately track Marine and Navy personnel at joint commands, (3) cannot separately track personnel by medical or age waiver, (4) cannot track personnel for multiple PRT results or averaged multiple PRT scores, (5) cannot track personnel who have demonstrated significant improvement in PRT score, (6) cannot separate data to track personnel who failed a section of the PRT or were overweight/obese, (7) cannot track personnel in remedial training programs, and (8) cannot print with multiple options to track personnel.

CFCs identified six specific problems associated with inputting data: (1) software disallows entry for pregnant personnel, (2) software disallows entry for personnel who are TAD at a Navy school, (3) software disallows entry of PRT score for personnel recorded as obese, (4) software requires Windows capabilities, (5) software requires remarks section for more accurate information on waiver status, and (6) software records "unknown" when any data are missing.

CFCs also identified software problems in the calculation of the PRT data which appear to involve four areas. First, the software package does not allow CFCs to change the overfat/obese calculation. A member of the command must first have measurements taken by the CFC to compute body fat. Physicians evaluate some individuals as being within the Navy's body fat standards even though the computer program has calculated that person's body fat to be "out of standards." The problem then arises that personnel are often counted twice in the final command PRT. Even if this error is noted, it then becomes a time-consuming exercise to find out which individual(s) was counted twice, and then manually readjust the final command results. Thus, CFCs recommend that the program incorporate editing functions. Second, CFCs have reported that for personnel who receive a medical waiver for only a single segment of the PRT, the software does not accommodate the remaining data. Third, some CFCs had difficulty entering medical waivers. Finally, two CFCs reported that their software occasionally miscalculates PRT point totals.

Problems in printing the results needed to complete the Command Summary Report were also noted. Some command CFCs reported their printer was incompatible with the Navy software. That is, commands were given printers that were either too old or too new to be compatible with the current software. As a result, they were forced to calculate the data by hand. Additionally, some CFCs reported they were unable to print individual results because the print requests are held in a buffer zone

until a full page of text has accumulated.

A common suggestion made by CFCs to help improve the reporting of PRT data was that only sections 1 through 8 of the Command Summary Report be completed. This information could then be sent to the commanding officer to be reviewed. PERS-60 would only receive information on those personnel who did not pass the PRT, did not participate in the PRT, or were chronically "out of standards."

**Processing and Summarizing the Command PRT Summary**

Given CFCs' assessment of how the Command Summary Report might be modified and the evaluation of ways to improve reporting of command PRT information, several options are apparent. Primarily, PERS-60 should consider discontinuing the use of the Command Summary Report. In its place, commands should be allowed to submit directly to the commanding officer and PERS-60 a completed copy of the Navy's PRT computer software output. These data could then be entered into a Navywide database on the physical readiness of all Navy personnel. Additionally, PERS-60 might also consider allowing CFCs to send the PRT data directly to this database via modems. Before this approach to preparing and sending the PRT data could be implemented, revisions of the current Navy PRT software would be required.

Another method to facilitate PERS-60's ability to process and summarize PRT information is to modify the existing Command Summary Report. The current form could be converted to one form that is compatible with optical scanning equipment. As a result, individual CFCs could simply enter the relevant PRT data onto the new form and mail it to PERS-60. In turn, a simple software package could be written to process the PRT data. The data could then be optically read, entered into a Navywide database, and computer-analyzed. Moreover, various commands may already have access to such optical scanning equipment. It could be possible for those commands to process the PRT data as described above and send the results directly via a modem. However, this method would not avoid the current problems associated with the Command Summary Report. These problems should be addressed, as outlined above, prior to converting the summary to an optical scanning format.

## Summary

The analysis contained in this report of the PRT program, as it is conducted in the field, was designed to examine: (a) physical readiness testing procedures, (b) remedial programs, (c) command attitudes, (d) data collection/preparation, and (e) recommendations for modifications of PRT data collection/preparation that would make the process more useful at the command level and improve reporting compliance to BUPERS.

The data from the Physical Readiness Testing Procedures and Physical Readiness Remedial Programs need to be interpreted in a conservative fashion. While many of the comparisons between the size and type of command were statistically significant, it should be noted that the actual differences between the means were small. In light of this observation, one must carefully evaluate if these statistical differences merit operational changes in the fleet.

While the majority of CFCs reported that they conducted the PRT, shore commands conducted the PRT more frequently while nonshore commands had a greater percentage of command personnel participating in each session. CFCs at small commands reported conducting the PRT more frequently and had a greater percentage of personnel participating in each session than large commands. However, when compared to nonshore commands, shore commands reported having the greatest percentage of personnel not participating in the PRT due to medical waivers. Nonshore commands reported having the greatest percentage of personnel not participating in the PRT due to no-shows. Most CFCs reported that their command offered incentives to score an "Outstanding" on the PRT, yet only half offered incentives to improve PRT scores to a higher level, with small commands offering these incentives more frequently than large commands. Most CFCs report some type of negative consequence for failing the PRT, but no statistical differences were observed for either the size or the type of command. The CFCs at shore commands reported working fewer hours than other types of commands, and large commands spent a greater percentage of total work hours actually conducting and completing the paperwork associated with the PRT.

Nearly all of the CFCs surveyed reported having remedial programs for those personnel who failed some aspect of the PRT. With respect to running/walking programs, shore commands required attendance at this form of remedial training more often and rated this program as being more effective when compared to nonshore commands. Similarly, shore commands offered nutrition/diet counseling more frequently than nonshore commands, and CFCs rated this form of remedial training as more effective. The only difference noted for commands offering strength/flexibility training was that this program was rated by CFCs as more effective by large commands. Additionally, large commands offered aerobic remedial training

more often than small commands, while shore commands offered aerobics less often than nonshore commands. The regression model used in this study suggested the importance of the role that remedial programs play in the overall physical readiness of commands. Effective remedial programs would certainly improve the operational readiness of the Navy and reduce the number of hours CFCs must spend tracking these personnel. Since CFCs at shore commands consistently rated their remedial programs as more effective than did nonshore commands, other types of commands may need to more closely examine the effectiveness of their remedial programs.

Command attitudes toward the PRT proved to be a very important factor in the perceived physical readiness of the command. Specifically, after controlling for the size and type of command, regression modeling suggested that the perceived physical fitness of the commanding officer accounted for the largest share of variance associated with the physical readiness of the command. Therefore, Navy officers should continue to assume a greater leadership role in addressing the importance of the PRT. This regression model also suggested that effective remedial programs, and a high percentage of personnel taking the PRT were predictive of a higher rating in physical readiness. Conversely, commands rated higher in physical readiness were less likely to require attendance at nutrition/diet programs. A possible explanation for this is that required attendance at nutrition/diet remedial programs do not significantly contribute to the overall physical readiness of a command if it is already rated high in physical readiness.

The computer software that CFCs use to gather and compute information for the Command Summary Report appears to be helpful. More than 90% of CFCs who reported using the software also stated that they submitted the Command Summary Report. Despite the wide use of the computer software, more than one quarter of the CFCs surveyed reported using other techniques alone or in conjunction with the software to gather and compute the necessary data.

Although submission of the Command Summary Report is mandated by OPNAVINST 6110.1D [2], PERS-60 estimates that 35-50% [3] of commands fail to submit this form. Conversely, only 6.1% of CFCs reported that they did not submit any PRT data, and an additional 2.9% of CFCs failed to respond to this particular question. Hence, the maximum possible failure rate to comply with OPNAVINST 6110.1D [2] is only 9.0%. It is currently unclear how to resolve the discrepancy between this reported rate and the estimate made by PERS-60.

## Recommendations

PERS-60 is interested in identifying ways to modify the Command PRT Summary so it will be more useful to commanding officers as well as increase the likelihood the form will be completed and forwarded. Thus, this survey focused upon factors related to the PRT that might affect the ability of commands to comply with OPNAVINST 6110.1D, and various methods that could be employed to increase the informational value and compliance associated with submitting the Command Summary Report.

Recommendations for the modification of PRT data collection and preparation are: (1) streamline the time-consuming sections of the Command Summary Report, and (2) provide more detailed information on the Command Summary Report for those individuals who may be "out of standards" or chronically failing the PRT. Modifications to improve reporting the PRT to PERS-60 include: (1) allowing CFCs to submit the completed Navy computerized PRT summary in place of the Command Summary Report, (2) modifying the existing computer software to be more flexible, and (3) reporting only those individuals who are "out of standards" to PERS-60. Lastly, methods to help PERS-60 process and summarize the PRT data could include: (1) accepting the Navy PRT software output in place of the Command Summary Report, or (2) converting the existing Command Summary Report to be compatible with optical scanning equipment.

## References

1. Chief of Naval Operations: OPNAVINST 6110.1B. Health and Physical Readiness Program, Washington, DC, Department of the Navy, 19 October 1982.

2. Chief of Naval Operations: OPNAVINST 6110.1D. Health and Physical Readiness Program, Washington, DC, Department of the Navy, 18 January 1990.

3. LCDR Anjeski (personal communication, 27 AUG 93). Bureau of Naval Personnel (PERS-60).

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Based on issues raised by the Bureau of Personnel and input from Command Fitness Coordinators (CFCs), the Naval Health Research Center developed a 22-item survey to evaluate: (a) physical readiness testing procedures, (b) remedial conditioning programs, and (c) command attitudes toward the Navy Physical Readiness Test (PRT). In total, 343 CFCs returned anonymous surveys for analysis. Responses were divided into either "large" (i.e., greater than 524 personnel) or "small" (no less than 25 but no more than 524 personnel) and "shore" vs "nonshore" (i.e., surface ship, air, submarine) commands. The results of this initial study suggested that the majority of commands (86.8%) are conducting the PRT, and remedial help is widely available. Command attitude toward the PRT proved to be a very important factor in the perceived physical fitness of the command. Regression modeling predicted that the major factors associated with the physical readiness of the command were: (1) perceived physical fitness of the commanding officer, (2) effective remedial conditioning programs, (3) attendance at nutrition/diet programs, and (4) a high percentage of personnel actually taking the PRT.

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