DLG-21/PAL:wr 9000 Ser 520 Jul 10 1964

From: Commanding Officer, U.S.S. GRIDLEY (DLG-21)

To: Chief, Bureau of Ships Subj: Urinals; height of

- 1. In a recent exchange of correspondence between Commander, Puget Sound Naval Shipyard and the Chief, Bureau of Ships, the Commander, Puget Sound Naval Shipyard on the basis of complaints by U.S.S. GRIDLEY (DLG-21) and U.S.S. REEVES (DLG-24), recommended that in future construction the urinals be installed at a height of 26 inches above the deck rather than the specified 23 inches. In response to the recommendation, the Chief, Bureau of Ships stated that the evidence cited did not justify a departure from the approved specifications on the height of urinal installation.
- 2. Since the original recommendation was made partly on the basis of complaints by GRIDLEY personnel and since there is an indication that GRIDLEY's complaint was not adequately justified, GRIDLEY has caused a more thorough inquiry into the facts.
- 3. A survey of ship's company has revealed that the tallest man in the crew is 6'6" and the shortest is 5'4". In a dry run, these two men have been posed at the urinals, at their present height of 23", and it has been determined that the tallest man has 15 inches clearance and the shortest 4 inches. Although GRIDLEY completely concurs in the desirability of fully documenting its recommendations it is considered that photographs may be, in this instance, omitted due to the delicacy of the subject. At any rate, it may be seen from the above figures that even the shortest man in the crew would still have one inch clearance if the urinals were mounted 3 inches higher. Let there be no thought that there is anything wrong with GRIDLEY's marksmanship. We can hit them, but it must be realized that the longer the drop in flow, the higher the head and consequently the greater the splash. Splash is the nemesis of sanitation.
- 4. From GRIDLEY's measurements and from information gleaned from the almanac that the average height of the American male is increasing, it is clear to GRIDLEY that the urinals are too low and should be raised. It appears that the fault lies in the change in the type urinal and possibly the change in height of the average man since the specifications were written and that there is no truth to the rumor that the man in BUSHIPS in charge of writing specifications for urinal heights is a midget and short coupled at that.
- 5. A change in specifications for future ships is earnestly recommended.

P.A. LILLY, Jr.

Copy to: PSNS, Brem. Wash. CO, USS REEVES (DLG-24) Ser 423-2346 5 AUG 1964

From: Chief, Bureau of Ships

To: Commanding Officer, USS Gridley (DLG-21)

Subj: Urinals; height of

Ref: (a) USS GRIDLEY ltr Ser 520 dtd 10 July 1964

(b) NAVSHIPYD PUGET SOUND ltr Ser DLG-29/9360 dtd 1 April 1964

- (c) BUSHIPS ltr 523-376 dtd 28 April 1964
- (d) BUSHIPS ltr Ser 632A-377 dtd 2 June 1964
- 1. In response to reference (a), reference (b, (c) and (d) have dealt with the subject at length and should clearly indicate to the Commanding Officer, USS GRIDLEY, that the Chief, Bureau of Ships has by no means taken a hands-off stand in this matter.
- 2. In view of the delicate nature of the situation, considerable time and effort, both in-house and out, was directed at the subject. From this steady stream of information, the current Bureau Specification of 23" has been found to compare favorably with maritime, aviation and other industrial standards. Domestic engineering standards give the installed height of urinal lip as 20" to 21". The Crane Company catalog shows the height as 22". Although a unique relationship developed earlier by USS REEVES (DLG-24) between bowl size and trajectory appears valid, there is no known cure for splash. Habit, experience and care will minimize but not eliminate this problem regardless of a man's height relative to that of the urinal.
- 3. Based on the above, I feel that we are on firm if not dry ground with our current specification. A review of the suitability of the smaller vitreous china urinal will be made prior to next standard plans revision. In the interim, it is suggested that you utilize the technique recommended by the Fire Chief from Wichita Falls -- if you can't stand closer to the fire, reel out more hose.

s/W. A. BROCKETT Copy to: USS REEVES PUGET SOUND NAVSHIPYD