

TB 11-5800-212-24

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN
**PROCEDURE FOR DETERMINING SERVICEABILITY
OF NIGHT VISION SIGHT
INDIVIDUAL SERVED WEAPON AN/PVS-2 AND
AN/PVS-2A; NIGHT VISION SIGHT, CREW SERVED
WEAPONS AN/TVS-2, AN/TVS-2A
AND AN/TVS-2B; NIGHT VISION SIGHTS,
MINIATURIZED AN/PVS-3 AND AN/PVS-3A;
and NIGHT VISION SIGHT, TRIPOD
MOUNTED AN/TVS-4 AND AN/TVS-4A**

Headquarters, Department of the Army, Washington, D.C.
20 August 1973

| | Paragraph |
|---|-----------|
| Purpose..... | 1 |
| Scope..... | 2 |
| Reporting of technical bulletin improvements..... | 3 |
| Equipment required..... | 4 |
| Test range..... | 5 |
| Preliminary procedures..... | 6 |
| Procedure..... | 7 |

1. Purpose. This technical bulletin provides check procedures for Organizational, Direct Support and General Support maintenance personnel to determine the serviceability of night vision sights.

2. Scope. These procedures are applicable to the night vision sights in storage or in use listed in Table 1. Night vision sights in storage complete with shipping case and accessories are identified by the Federal Stock Number (FSN) listing on Table 1 Column 2. Night vision sights in use without the

shipping container are identified by the FSN listing on Table 1 Column 3.

3. Reporting of Technical Bulletin Improvements. The reporting of errors, omissions, and recommendations for improving this bulletin by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to Commander, USAECOM, ATTN: AMSEL-MA-SNV, Fort Monmouth, NJ 07703.

Table 1. Night Vision Sight Federal Stock Numbers

| Night Vision Sight | FSN With Shipping Case and Accessories | FSN Without Shipping Case and Accessories | Applicable Technical Manual |
|--------------------|--|---|-----------------------------|
| AN/PVS-1 | 5855-087-2942 | 5855-688-9954 | TM 11-1090-268-13 |
| AN/PVS-2 | 5855-087-2947 | 5855-832-9223 | TM 11-5855-203-13 |
| AN/PVS-2A | 5855-179-3708 | 5855-179-3709 | TM 11-5855-203-13 |
| AN/PVS-3 | 5855-832-9341 | 5855-167-7697 | TM 11-5855-209-10 |
| AN/PVS-3A | 5855-156-4992 | 5855-156-4993 | TM 11-5855-209-10 |
| AN/TVS-2 | 5855-087-3144 | 5855-937-1662 | TM 11-5855-202-13 |
| AN/TVS-2A | 5855-791-3358 | 5855-791-1653 | TM 11-5855-202-13 |
| AN/TVS-2B | 5855-484-8638 | 5855-409-0915 | TM 11-5855-202-13 |
| AN/TVS-4 | 5855-906-0994 | 5855-053-3142 | TM 11-5850-228-13 |
| AN/TVS-4A | 5855-760-3870 | 5855-053-3142 | TM 11-5850-228-13 |

4. Equipment Required. *a. Table.* A work bench or table to hold the night vision sights to be checked.
b. Batteries. One battery for each night vision

sight to be checked.

c. Test Target. Construct a cardboard test target. See Figure 1 for details and dimensions.

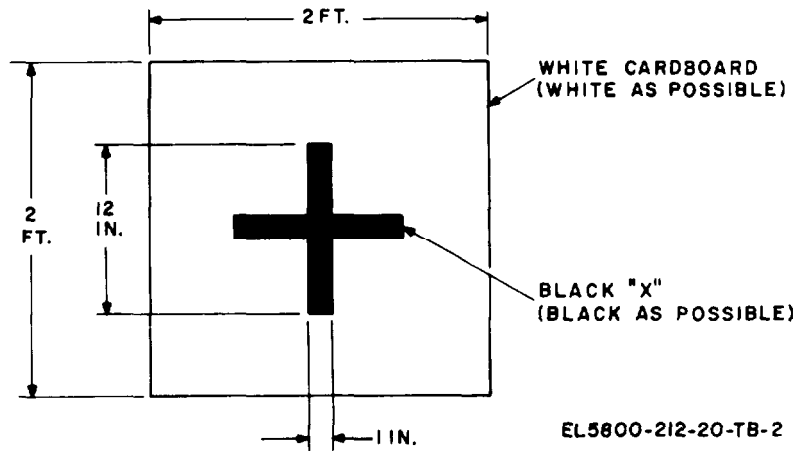


Figure 1. Test Target.

5. Test Range *a. Location* Select an open area as far away from artificial lighting (streetlights, floodlights, building lights, etc.) as possible. The test is to be performed at night using natural light (starlight or moonlight) only.

b. Dimensions. Refer to Figure 2. The test target may be nailed to a tree, post, or other support to provide a height above ground of approximately four feet.

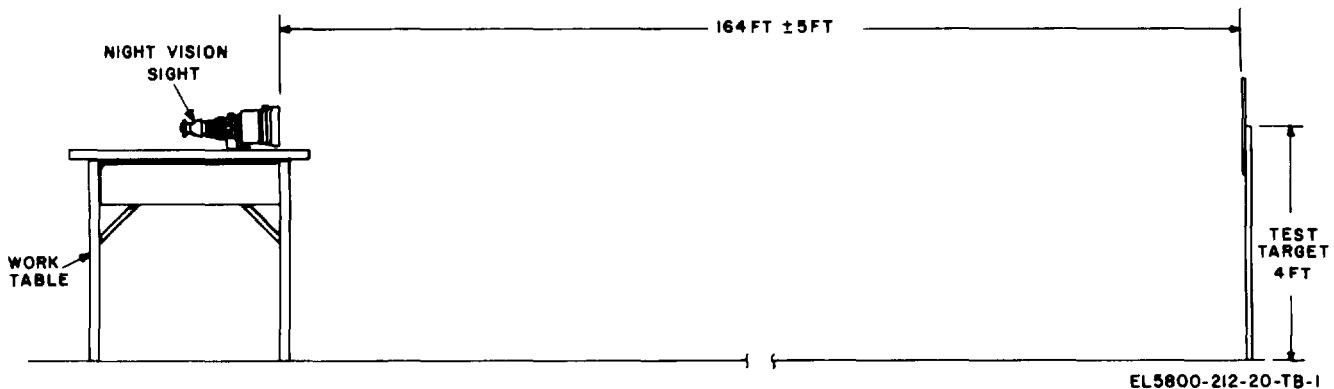


Figure 2. Test Range.

6. Preliminary Procedure. Before taking the night vision sights to the test range perform the Operators Daily Maintenance Checks and Services for each sight. Refer to the applicable technical manual (Table 1).

7. Procedure. Refer to applicable technical manual for battery installation, location of controls, and operation *a. Battery installation and warm up.*

(1) Check that all sight power switches are in the off position.

(2) Install battery and set power switch to the on position. Remove lens cap.

(3) Place sights on the table, objective lens facing down, and allow a 15 minute warm-up time.

b. Operational test.

(1) Select a night vision sight and point down

range toward the test target.

NOTE

All night vision sights except the AN/TVS-4 should be stabilized by resting or bracing on the work table. Use the small tripod provided with the AN/TVS-4.

(2) Adjust the eyepiece diopter ring for best reticle focus.

(3) Adjust the objective focus for best test target image.

(4) The night vision sight is operating ac-

ceptably if the test target image is clear enough to be recognized as a cross. If the cross cannot be made clear enough by repeated attempts at re-focusing the sight or if the image is too dim, flickering, flashing, varying in intensity or out of focus at all settings, corrective maintenance is required.

c. Infinity Test.

(1) Point the sight toward the sky and locate a group of stars. The stars will appear as circles with a hole in the middle.

(2) Adjust the objective lens focus until the stars become sharp pinpoints of light. If this cannot be achieved, corrective maintenance is required.

By Order of the Secretary of the Army:

CREIGHTON W. ABRAMS
General, United States Army
Chief of Staff

Official:

VERNE L. BOWERS
Major General, United States Army
The Adjutant General

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Active Army:

- | | | |
|--------------------|------------------------------|--------------------------|
| USASA (2) | USASESS (5) | TOAD (14) |
| CNGB (1) | USAADS (2) | USA Dep (2) |
| ACSC-E (2) | USAFAS (2) | Sig Sec USA Dep (5) |
| Dir of Trans (1) | USAARMS (2) | Sig Dep (5) |
| COE (1) | USAIS (2) | Sig FLDMS (3) |
| TSG (1) | USAES (2) | USA ERDAA (1) |
| USAARENBD (1) | USAINTS (3) | USA ERDAW (1) |
| USABM (10) | WRAMC (1) | MAAG (1) |
| AMC (1) | USACDCEC (10) | USARMIS (1) |
| CONARC (5) | ATS (1) | Units org under fol TOE: |
| ARADCOM (2) | DIV (2) | (2 cys each unit) |
| ARADCOM Rgn (2) | Regt (2) | 11-35 |
| OS Maj Comd (4) | Bde (2) | 11-36 |
| LOGCOMDS (3) | Bn (2) | 11-37 |
| MICOM (2) | Instl (2) except | 11-38 |
| TECOM (2) | Fort Gordon (10) | 11-39 |
| USAIB (2) | Fort Hauchuca (10) | 11-95 |
| USAIC (5) | Fort Carson (10) | 11-117 |
| USA STRATCOM (4) | Ft Richardson (ECOM Ofc) (2) | 11-158 |
| MDW (1) | WSMR (1) | 11-215 |
| Armies (2) | Army Dep (2) except | 11-216 |
| 7th & 8th USA (10) | LBAD (14) | 11-500(AA-AC) |
| Corps (2) | SAAD (30) | 29-134 |
| HISA (ECOM) (21) | LEAD (7) | 29-136 |
| Svc Colleges (1) | ATAD (10) | |

NG: Units-Same as active Army except allowance is one (1) copy each unit

USAR: None

For explanation of abbreviations used, see AR 310-50.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS



THEN...JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL.

SOMETHING WRONG WITH PUBLICATION

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER

PUBLICATION DATE

PUBLICATION TITLE

BE EXACT PIN-POINT WHERE IT IS

PAGE NO.

PARA-GRAPH

FIGURE NO.

TABLE NO.

IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.

TEAR ALONG PERFORATED LINE

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER

SIGN HERE

THE METRIC SYSTEM AND EQUIVALENTS

WEIGHT MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
 1 Kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
 1 Kilogram = 1000 Grams = 2.2 lb.
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches
 1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet
 1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
 1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

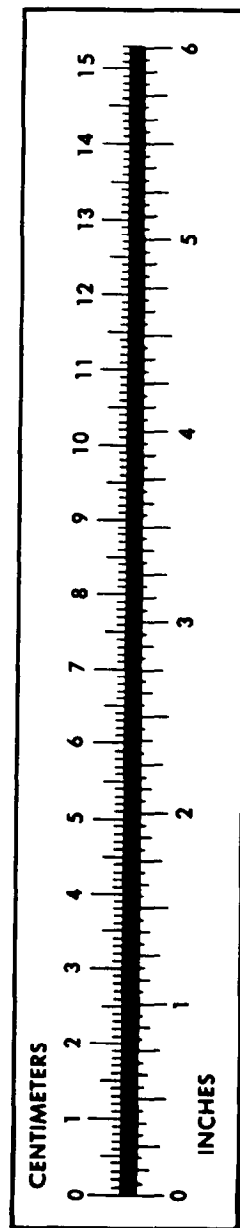
TEMPERATURE

$5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$
 212° Fahrenheit is equivalent to 100° Celsius
 90° Fahrenheit is equivalent to 32.2° Celsius
 32° Fahrenheit is equivalent to 0° Celsius
 $9/5^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

APPROXIMATE CONVERSION FACTORS

| TO CHANGE | TO | MULTIPLY BY |
|------------------------|----------------------|-------------|
| Inches | Centimeters | 2.540 |
| Feet | Meters | 0.305 |
| Yards | Meters | 0.914 |
| Miles | Kilometers | 1.609 |
| Square Inches | Square Centimeters | 6.451 |
| Square Feet | Square Meters | 0.093 |
| Square Yards | Square Meters | 0.836 |
| Square Miles | Square Kilometers | 2.590 |
| Acres | Square Hectometers | 0.405 |
| Cubic Feet | Cubic Meters | 0.028 |
| Cubic Yards | Cubic Meters | 0.765 |
| Fluid Ounces | Milliliters | 29.573 |
| its | Liters | 0.473 |
| arts | Liters | 0.946 |
| allons | Liters | 3.785 |
| Ounces | Grams | 28.349 |
| Pounds | Kilograms | 0.454 |
| Short Tons | Metric Tons | 0.907 |
| Pound-Feet | Newton-Meters | 1.356 |
| Pounds per Square Inch | Kilopascals | 6.895 |
| Miles per Gallon | Kilometers per Liter | 0.425 |
| Miles per Hour | Kilometers per Hour | 1.609 |

| TO CHANGE | TO | MULTIPLY BY |
|--------------------|------------------------|-------------|
| Centimeters | Inches | 0.394 |
| Meters | Feet | 3.280 |
| Meters | Yards | 1.094 |
| Kilometers | Miles | 0.621 |
| Square Centimeters | Square Inches | 0.155 |
| Square Meters | Square Feet | 10.764 |
| Square Meters | Square Yards | 1.196 |
| Square Kilometers | Square Miles | 0.386 |
| Square Hectometers | Acres | 2.471 |
| Cubic Meters | Cubic Feet | 35.315 |
| Cubic Meters | Cubic Yards | 1.308 |
| Milliliters | Fluid Ounces | 0.034 |
| Liters | Pints | 2.113 |
| Liters | Quarts | 1.057 |
| ers | Gallons | 0.264 |
| ms | Ounces | 0.035 |
| ograms | Pounds | 2.205 |
| Metric Tons | Short Tons | 1.102 |
| Newton-Meters | Pounds-Feet | 0.738 |
| Kilopascals | Pounds per Square Inch | 0.145 |
| ometers per Liter | Miles per Gallon | 2.354 |
| ometers per Hour | Miles per Hour | 0.621 |



PIN: 014258-000