

# Enhanced Low Dose Rate Sensitivity (ELDRS) Laboratory

## Features

- MIL-STD-883G, Test Method 1019.7, Condition D compliant
- 1019-compliant Pb-Al test boxes
- Transformer-Isolated UPS source control
- Remote bias and monitoring capability
- Custom cabling available
- Radiochromic optical waveguide dosimetry, dose range of 1 krad(Si) to 1 Mrad(Si)
- HHEVC dye dosimeters read by dual-wavelength photometry
- Dosimeter lot calibrated to NIST gammacell
- Real time monitoring and beam mapping



## Test Facility

Enhanced Low Dose Rate Sensitivity (ELDRS) Cobalt-60 test facility, compliant with MIL-STD-883G, Test Method 1019.7, Condition D. Available dose rates range from 100 mrad (Si)/s to 0.1 mrad (Si)/s and below. 1019-compliant Pb-Al test boxes available for energy spectrum hardening.

## Source Configuration

J.L. Shepherd & Associates Model 81-20 Co-60 Beam Irradiator configured as a room source of approximately 45 m<sup>2</sup>. Transformer-Isolated Uninterruptible Power Supply (UPS) to source control for continuity of test.

## Instrumentation

Remote bias capability from control room instrument racks with 5 kVA current-monitored UPS backup, distributed to all areas of the vault via overhead cable tray. Typical cable length between instrument rack and unit under test is 20 m. Ample spare chase and cable tray volume are available for custom cabling.

## Dosimetry

Far West Technologies FWT-200S Opti-chromic Reader, using FWT-70-40M radiochromic waveguide dosimeters with dose range sensitivity from 1 krad to 1 Mrad. Calibration is traceable to NIST.

RadCal 2026C Dosimeter with 20X6-0.6 High Dose Rate Ionization Chamber for real time monitoring and beam mapping.

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For more information,  
please contact:

**Russ Graves**

Radiation Effects Group

480-441-7693

Russell.Graves@gd-ais.com