

**MIRION**  
Connect **21**  
Annual Users' Conference





# AccuRad PRD

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# Agenda

- About the AccuRad PRD
- Voice of the customer
- What's New? Newer? Newest?

# About the AccuRad PRD

What, when, and how.

# About...

- Designed by and for emergency responders.
- Discreet, durable, easy to use.
- Benefit of use for applications in:
  - Nuclear Power Plants
  - DOE sites
  - Universities
  - Industrial facilities
  - Hospitals



# About... (cont.)

## *Benefits of use (cont.)*

- Users include:
  - HP/ RP / Rad-Con personnel in NPP, DOE Site, DoD., Shipyards, State Labs, State Pens, Waste processors, Remediation sites...
  - State Inspectors and EMA personnel
  - Lab Personnel
  - Radiation Safety Officers
  - Emergency Room Staff
  - Navy and Army EOD personnel

# Voice of the Customer

The power is in the collaboration

Why so serious?

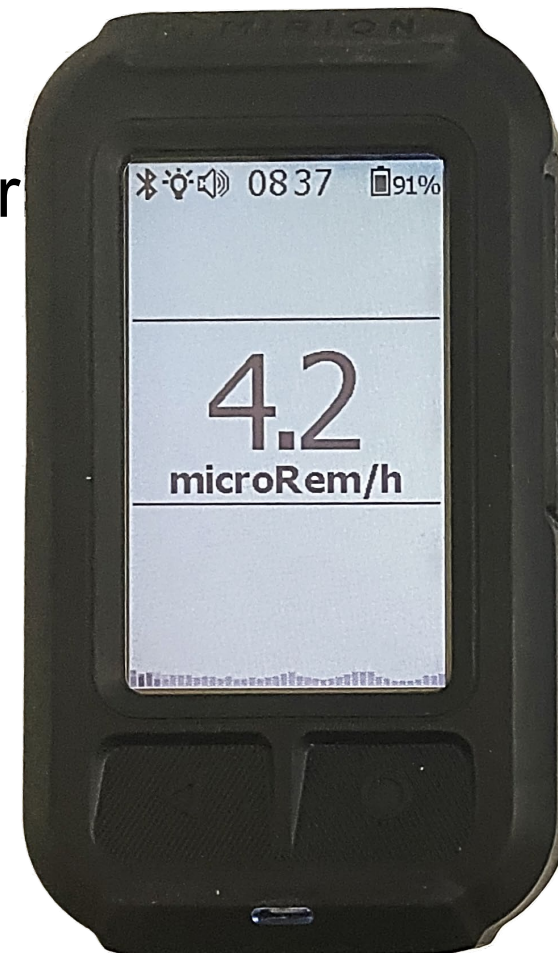
it's only radiation...



# Voice of the Customer

- **Mirion**: What is currently available to you?
- **Mirion**: What do you need?
- **Mirion** provides props and asks: “Show-and-tell us what you need”

- **Mirion**: Why does this form-factor work?



- **Mirion**: What do you think?

- **Voice**:



- **Voice**: something like...



- **Voice**:



- **Voice**: it's compact, big display, big buttons, unbreakable clip, lightweight, easy to use.

- **Voice**: “You listened!” (Validation)



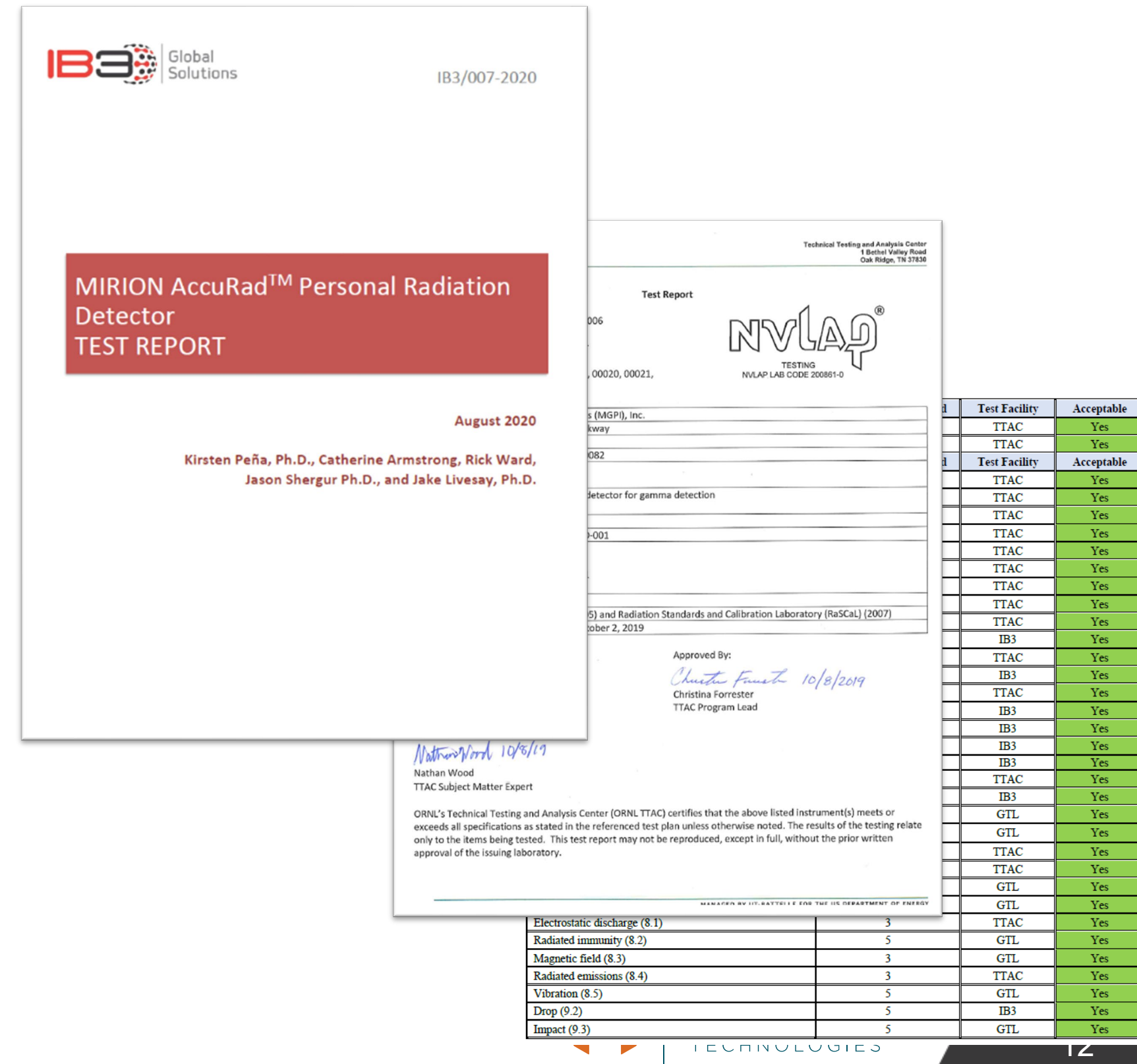
# What's New?

Keeping it fresh

# What's New?

# AccuRad Testing & Certification

- **ANSI N42.32-2016 (PRD) 3<sup>rd</sup> party reports**  
*Includes ANSI N42.20 (EPD) dose rate response*
- **IEC62401:2017**
- **Additional AccuRad Requirements**  
*IP67, dose rate accuracy +/-20%...*



# What's New?

## AccuRad Testing & Certification: Formal Tests



- Rail track simulates source of interest passing or passed by
- In accordance with the 2016 version
- Includes a “phantom” – devices on both sides

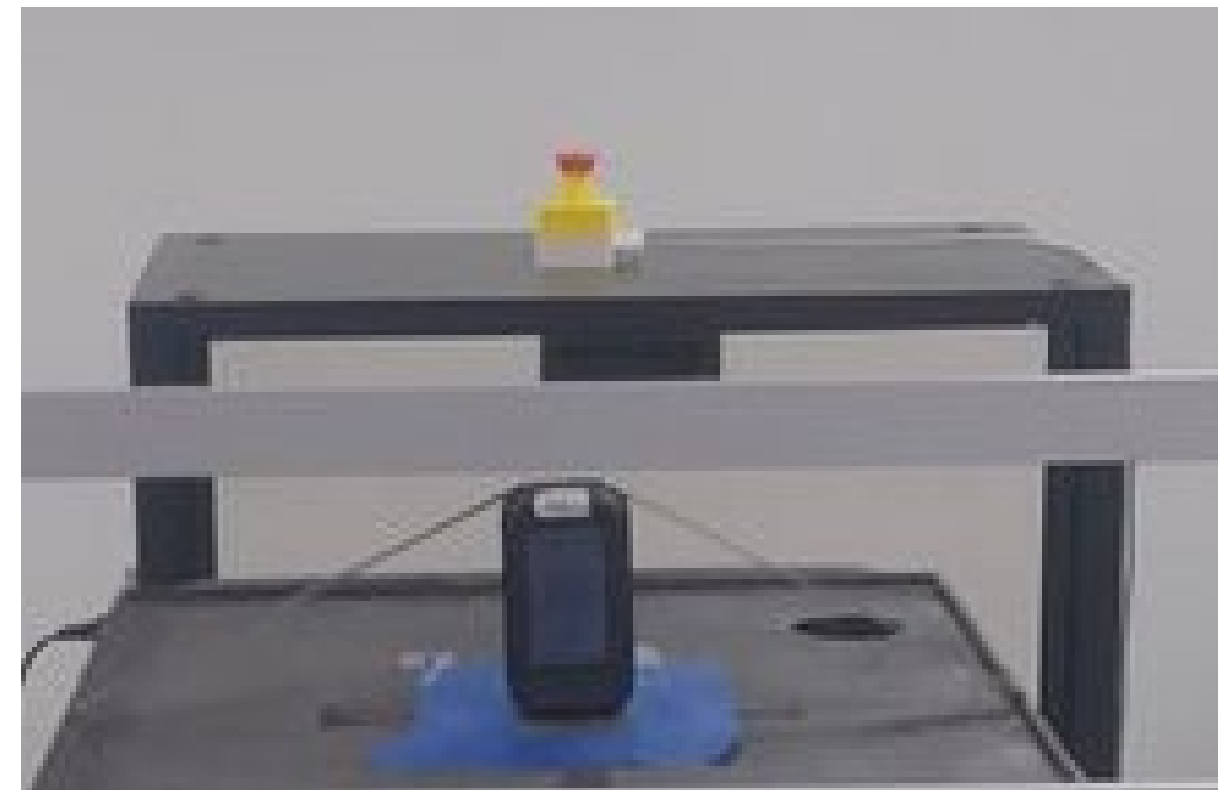


- Environmental chamber to simulate temperature and humidity extremes
- Device performance for detection as well as display performance in extreme conditions
- Included both dynamic changing conditions and static full range operation

# What's New?

## AccuRad Testing & Certification: Formal Tests (cont.)

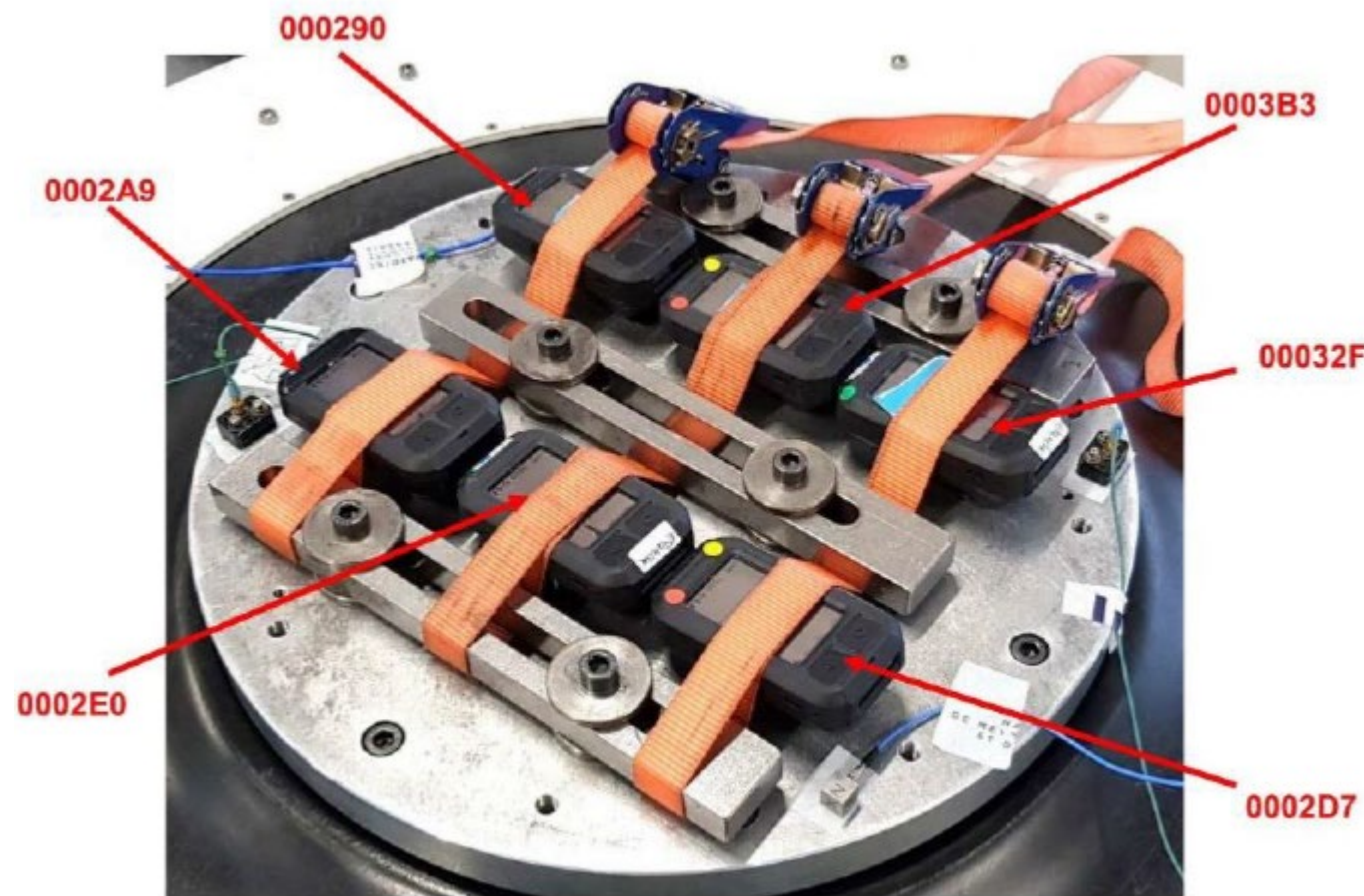
- Radiated immunity (50V/m) from outside transmitters
- Tested to ensure does not cause any interference
- Survives electrostatic discharge at 6000V contact and 8000V in-air discharge
- Magnetic field 100A/m (1.3 gauss) at 50Hz and 60Hz
- Ensures performance near extreme levels of power transmission lines



# What's New?

## AccuRad Testing & Certification: Formal Tests (cont.)

- Formal version of our “cat drop test” – vibration testing
- Simulates body motions in all likely conditions
- Also includes impacts typical of jumping/landing while still affixed to a wearer
- Dust/dirt ingress testing while still operating
- Also tested for washdown, spray, showers
- Includes underwater testing at a depth of 1 meter for 30 minutes without intrusion



# What's New?

## Dark Mode Display

- Reverse contrast display option
- Helps minimize effects of glare
- Accessible from Settings Menu



# What's New ? (cont.)

## Accessories

Ram Mount



USB-C Cable



Earpiece  
USB-C



Storage Case  
1 & 25 AccuRad's



# What's Newer?

## Source Check Fixture

- For **bump test/response** check and **accuracy** test verification
- Assures correct detector-to-source geometry.
- Supports low cost of ownership
- Example Response Check Log:

Display values in microrem			Tolerance +/-15%	Within Tolerance?	
DATE	EXPECTED	MEASURED	ACCURACY	YES	NO
3/11/2021	25	26	4%	✓	
4/12/2021	25	25	0%	✓	
5/10/2021	25	24	-4%	✓	
6/10/2021	25	23	-8%	✓	
7/10/2021	25	26	4%	✓	
8/12/2021	25	26	4%	✓	
9/9/2021	25	25	0%	✓	
10/8/2021	25	27	8%	✓	



# What's Newer (cont.)

## D&I Response Kit

- SpirACE G/N
- AccuRad PRD (6)
- Rugged Case
- Customized configurations



# What's Newer (cont.)

## X-SITE Live Hazardous Monitor

- Dräger X-AM 8000 Gas Vapor
- AccuRad PRD
- Lifeline Smart Gateway with FirstNet
- Deployable, real-time gas (C) and radiation (RN) detection for remote situational awareness anywhere in the world

Collaboration with: **Dräger**



# What's Newest?

## The AccuRad **SIM**



# What's Newest (cont.)?

## The AccuRad **SIM**

### Demonstration

# Open Forum



# Thank you!