RADIATION SCANNER FOR CARGO CONTAINERS & TRUCKS

Model ~ RAD-20, -21 CANSCAN

FEATURES:

- NON-INVASIVE - EXTERNAL SCAN GIVES DETAILED INTERNAL INFORMATION
- DETECTS - ALL RADIOACTIVE MATERIALS, SOURCES & CONTAMINATION
- MORE SENSITIVE and BETTER RESOLUTION THAN BIGGEST VEHICLE MONITORS
- CREATES MAP OF INTERIOR
- PIN-POINTS LOCATION OF RADIOACTIVE CONTRABAND
- ISOTOPE IDENTIFICATION OF 'HOT' SOURCES
- REQUIRES ACCESS TO TOP OR ACCESS TO ONE SIDE OF CONTAINER (**RAD-20 CANSCAN**
- DETECTOR IS IN A TUNNEL (**RAD-21 CANSCAN**
- **IP54**

TUNNEL MOUNTED
RAD-21 CANSCAN

CRANE MOUNTED
RAD-20 CANSCAN

COMPLETE SYSTEM: **Does Not Interfere With Vital Loading and Unloading of Cargo.**

PROBLEM:

Large numbers of loaded shipping containers pass through & are stored at seaports around the world. We need to know which containers, if any, carry Radioactive Materials. Entering & doing a manual search of large numbers of containers is not feasible for many reasons.

SOLUTION:

The **RAD-20, 21 CANSCAN** give highly detailed, FAST RESPONSE, interior information from an external scan. The **RAD-20 CANSCAN** only requires access to the top or one side of each container, allowing scanning of stacked containers.

DESCRIPTION:

The **RAD-20 CANSCAN** has three main elements:

1. An 8ft H x 40 ft L mobile scanning detector
2. Computer analysis console
3. Mobile crane for detector placement.

Alternatively the detector assembly is easy to mount on existing port vehicles, such as a forklift, crane, etc.

RAD-21 CANSCAN has a fourth element which is a neutron generator and requires a license to own and operate..

(2) METHODS OF USE:

The **RAD-20 CANSCAN** is brought to the container.

The **RAD-21 CANSCAN** has the detector in a 'tunnel' and the container is brought to the detector.

TA CBRN Real - Time Air & Water Specialists

TA **TECHNICAL ASSOCIATES** Divisions of US NUCLEAR CORP
OVERHOFF TECHNOLOGY
7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)
tagold@nwc.net WWW.TECH-ASSOCIATES.COM

RADIATION SCANNER FOR CARGO CONTAINERS & TRUCKS

Model ~ RAD-20, -21 CANSCAN

SPECIFICATIONS:

Sensitive Length: 8 ft Linear Detector

Overall Dimensions: **RAD-20 CANSCAN:** 8 ft H x 2 ft W x 40 ft L OR 8 ft H x 2 ft W x 20 ft L

RAD-21 CANSCAN: 20 ft H x 16 ft W x908 ft L (Standard)

Detectors:

RAD TYPE	SCINTILLATORS	RAD-20 CANSCAN	RAD-21 CANSCAN
Gamma:	(30) ea 3" dia x 1" NaI(Tl) Scintillator	YES	YES
Neutron:	(1) ea. 7" Neutron Scintillator	N/A	YES
Neutron Generator:	N/A	N/A	YES

SPECIFICATIONS continued:

Neutron Generator: In the **RAD-21 CANSCAN** a Neutron Generator gives enhanced sensitivity to fissile materials.

Shielding: Shielding & Collimation is provided, but may be deleted for a special light-weight version: **RAD-20LW**.

Electronics: Each detector has pre-amp and HV.

Isotope Identification: A Multi-Channel Analyzer applies Background Subtraction and uses a Sophisticated algorithms to compare the output from the highest counting detector to the extensive pre-loaded Spectrum Library to achieve accurate Isotope Identification.

Location Mapping: The computer uses the detector data to overlay a virtual 30 x 150 grid onto the shipping container, with grid lines spaced every three inches

The visual display shows where the radiation emitting sources are located on this grid.

Data Storage: All data is archived to the Hard Drive and automatically backed-up to CD.

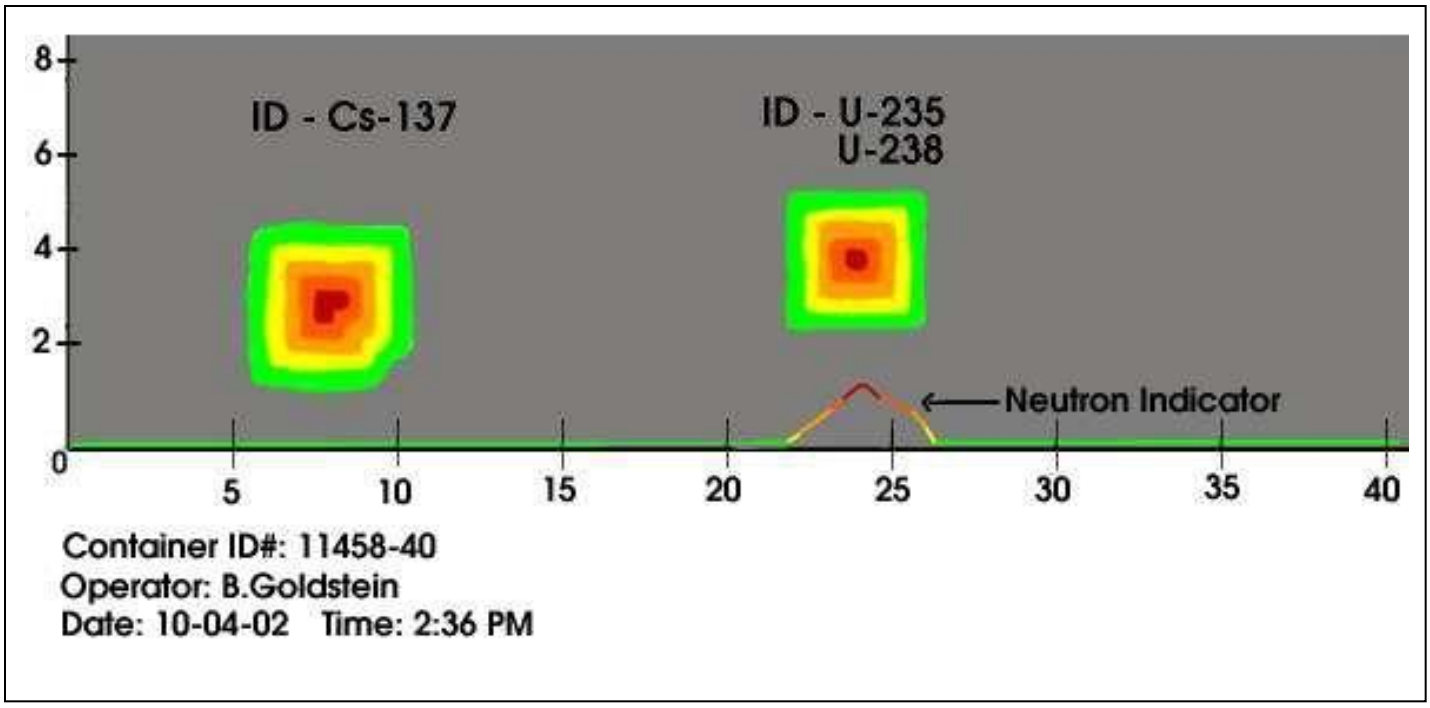
TECHNICAL ASSOCIATES Divisions of US NUCLEAR CORP
OVERHOFF TECHNOLOGY
7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)
tagold@nwc.net WWW.TECH-ASSOCIATES.COM

RADIATION SCANNER FOR CARGO CONTAINERS & TRUCKS

Model ~ RAD-20, -21 CANSCAN

Image of Container Interior

Created By RAD-CANSCAN



RAD-20, 21 CANSCAN

30 x 150 Grid Showing 2 Hot Spots & identifying the isotopes in this shipping container.

CBRN Real - Time Air & Water Specialists

TECHNICAL ASSOCIATES Divisions of US Nuclear Corp

OVERHOFF TECHNOLOGY

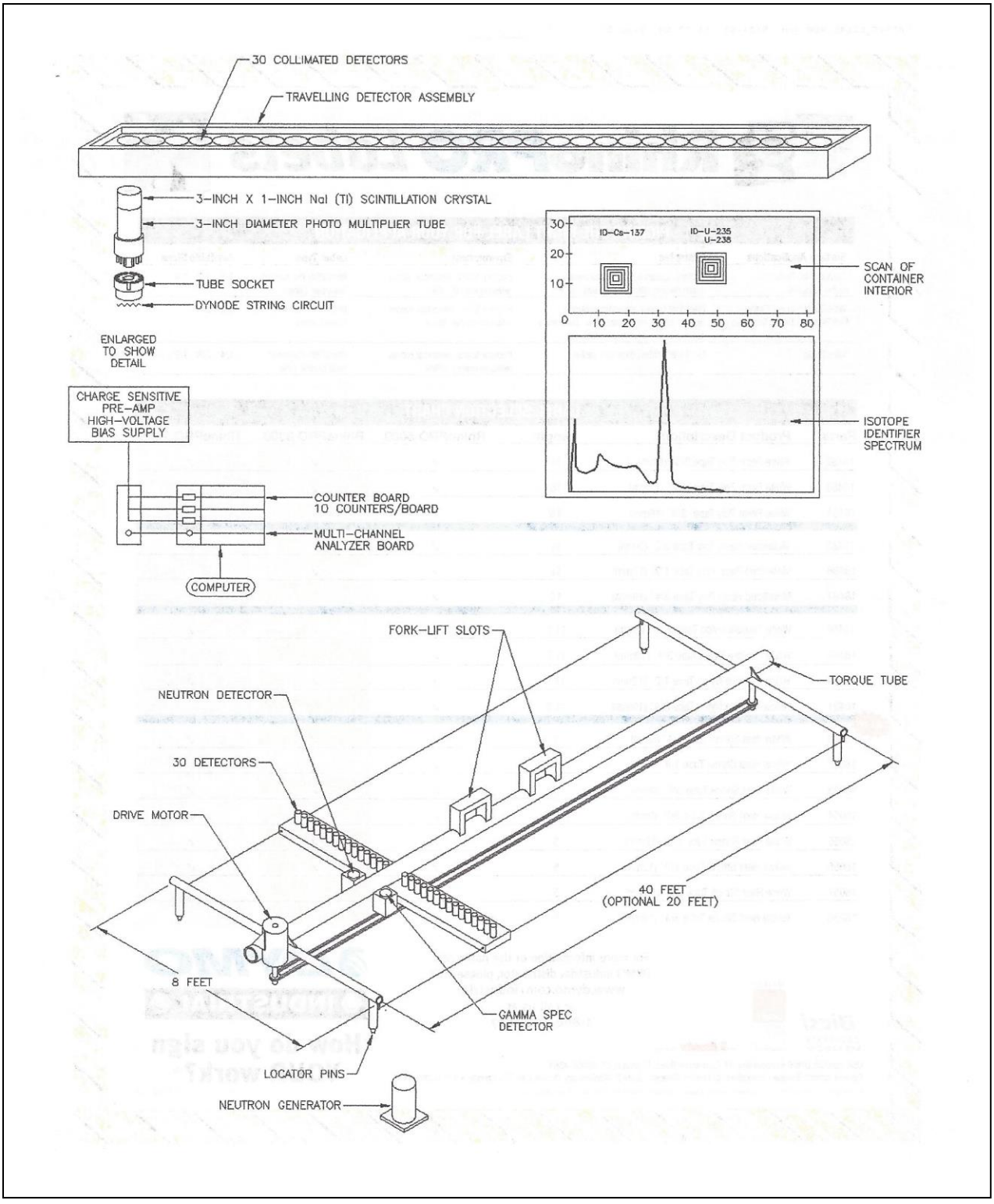
7051 Eton Ave., Canoga Park, CA 91303

818-883-7043 (Phone) 818-883-6103 (Fax)

tagold@nwc.net WWW.TECH-ASSOCIATES.COM

RADIATION SCANNER FOR CARGO CONTAINERS & TRUCKS

Model ~ RAD-20, -21 CANSCAN



TECHNICAL ASSOCIATES Divisions of US NUCLEAR CORP

OVERHOFF TECHNOLOGY

7051 Eton Ave., Canoga Park, CA 91303

818-883-7043 (Phone) 818-883-6103 (Fax)

tagold@nwc.net WWW.TECH-ASSOCIATES.COM

RADIATION SCANNER FOR CARGO CONTAINERS & TRUCKS

Model ~ RAD-20, -21 CANSCAN

The Quantum Family of Software

Technical Associates has been a manufacture of accurate, easy to use Radiation Detection Devices Since 1946.

TA provides a complete Gamma spectroscopy systems including analytical software.

The Quantum Software packages have been designed to allow the spectroscopist to decide how an analysis is performed. Power & flexibility are the watchwords for these packages presenting the latest in the fields of pulse-height analysis and Gamma spectroscopy.

QuantumMCA provides support for a broad range of hardware with tools for qualitative analysis.

QuantumGold adds full function quantitative analysis for nuclear spectroscopy to the features of Quantum MCA.

QuantumGeD includes both qualitative and full quantitative analysis features for germanium detectors only (i.e., no NaI(Tl) detectors and no QCC mode).

QuantumGe is the same, but without de-convolution analysis.

QuantumNaID has both qualitative and quantitative analysis for NaI detectors only.

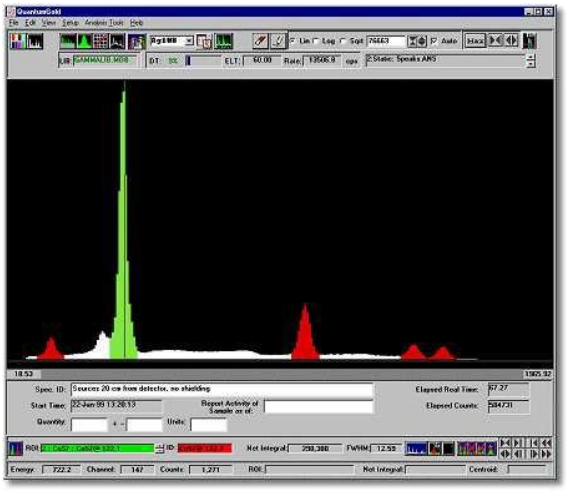
QuantumNaI does not include de-convolution analysis.

QuantumMCA is the basic MCA analytical package & is supplied with all TA multichannel analyzer instruments that require computer control.

For sodium iodide-based Gamma spectroscopy, TA offers the patented **Quadratic Compression Conversion (QCC)** (patent no. 5,608,222). It is implemented in the MCA2100R and MCA2100 Gamma spectrometers. This signal processing technique gives spectra with consistent peak resolution throughout the entire range of detection. This makes spectrum analysis fast and easy.

The following are just a few of the features:

- Spectrum memory control for controlling the display of up to 8 spectra. Tool Setup for entering analysis parameters.
- Device configuration for establishing device communication. Setting and identifying ROIs.
- Analysis tools. Nuclide libraries. Quantitative analysis. QScript tool for automation. Analysis methods.
- Resolution and efficiency calibration. Quadratic Compression Conversion.



TECHNICAL ASSOCIATES Divisions of US NUCLEAR CORP
OVERHOFF TECHNOLOGY
7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)
tagold@nwc.net WWW.TECH-ASSOCIATES.COM

CBRN Real - Time Air & Water Specialists