AN/UDR-13
Military Pocket Radiac

This small and lightweight Military Pocket Radiac is designed for reliability and performance.

PERSONNEL DOSE MANAGEMENT

Utilising the included Infra-Red RS-232 port and the units significant storage capability, the AN/UNDR-13 can greatly assist in the efficient dose management of personnel in a field organisation. The serial numbers of the users may be stored in the unit, and their total accumulated daily or weekly dose can be "read" by a computer. With minimal operator attendance, the information can be assigned to the users Radiation Dose file. Various safeguards against accidental erasing of accumulated dose or miss-setting of alarm levels can be installed.

FOR TROOPS

The Pocket Radiac is suitable for both Tactical and non-Tactical radiation protection use. This simple to operate, small, rugged, and lightweight equipment combines unequalled performance and reliability.

Features such as wide dynamic ranges for dose and dose rate, pre-settable alarms and the unique ability to measure not only Residual but also Prompt radiation, make this instrument clearly the instrument of choice for the foot soldier.

FOR VEHICLES/HELICOPTERS

Equally compatible with operation and use in all military vehicles and helicopters. Capable of operating on vehicular or aircraft power, the Pocket Radiac easily fits into the tightly crammed interiors of aircraft and fighting vehicles.

Detection probes may be mounted outside the vehicle or helicopter and can operate in conjunction with the detector of the internally located AN/UDR-13 to provide complete radiation assessments.

FEATURES

- Gamma and Neutron dose measurement
- Simple to operate
- Small, light and rugged
- Not affected by EMP
- Low life cycle costs
- Pre-settable audio and visual alarms
- PC communication

DISPLAY

- Auto ranging LCD that can be read at 3 ft, back-lit for night use, updated every two seconds
- Data downloadable via optical (IR) communications port
- Provides data in units of cGy and cGy/hr

RELIABILITY & MAINTAINABILITY

- Mean time between failure (MTBF) is greater than 2000 hr
- Mean time to repair (MTTR) 15 mins

POWER

- Four AAA 1.5V batteries
- Min. battery life of 150 hr during continuous monitoring, and 1500 hr during inactive (sleep) mode
- Low battery LCD indication with 5 hr of battery life remaining, a "Go / No Go" feature provides battery status

ALARMS

- Selectable Visual and Audible indicators for day or night use
- Alarm levels are settable over entire dynamic range

SPECIFICATION

Residual gamma radiation	0.001 to 999 cGy/hr (dose rate) and 0.001 cGy to 999 cGy (total dose), neutron or gamma dose from initial radiation 1 to 999 cGy
Pre-settable dose & dose rate alarms	Audible and visual
Setup time	Less than one minute for all checks and alarms
Accuracy	±15%
Enhanced battery life	Sleep mode provides 1500 hr battery life
Circuit protection	Nuclear and EMP hardened
EMI compatibility	Will not be effected, or ause other equipment to be effected by its use
Operable and readable	By persons wearing Arctic and MOPP protective clothing
Weight	9.5 oz (270 g)
Volume	10.5 in^3 (172 cc)
Dimensions	100 x 66 x 28 mm (3.875 x 2.50 x 1.25 in)

DETECTORS

Pin Diode (neutrons) PMOS-FET (prompt gammas) and GM detector (residual gammas)

Reads in tissue	Dose centigray (cGy) Other readout units available on request (Rads or Sieverts)
Gamma dose rate	Independent to 10^8 cGy/s
Neutron dose rate	Independent to 10^{18} neutrons/cm^2/s
Gamma energy dependence	±20% 80 keV to 3 MeV
Neutron energy	Thermal to 14 MeV neutrons
Total (cumulative) dose read out	Will not be erased when read, re-settable to zero as desired
Dose rate	Minimum detectable level 0.001 cGy/hr
Response time	Within 10% of final reading in four seconds, returns to background within four seconds

southern scientific

Scientific House, The Henfield Business Park,
Shoreham Road, Henfield, West Sussex, BN5 9SL
Tel: +44 (0)1273 497600
Email: info@southernscientific.co.uk