

AIR FORENSICS

AERIAL RADIATION & CHEMICAL DETECTION SYSTEM

DroneSENSOR™ Series

Model ~ DroneRAD-ST™ (Search Tool or Mapping) - Gamma

Model ~ DroneRAD-PT™ (Air Monitor & Plume Detector):
Particulate – Alpha, Beta, Gamma & Airborne Chemicals

DroneSENSOR™ THE ULTIMATE TOOL FOR FIRST RESPONDERS©



ADVANCED DRONE QUADCOPTER FLIGHT PLATFORM

SITUATION:

Cameras & thermal sensors are popular applications for UAV technology.

Data collection by UAVs is a great advance.

NOW take personnel out of harm's way in radiation & Chemical detection.

DroneRAD™

DroneRAD™ System

Includes:

Advanced Flight Platform
QUADCOPTER

Controllers

DroneRAD™ Detector System

Hard Shell Case for DroneRAD™ System

Optional: Training



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP

OTCQB - UCLE

AERIAL RADIATION & CHEMICAL DETECTION SYSTEM

FEATURES

DroneRAD™ Detector System

EASY INSTALLATION

DroneRAD-ST™ & DroneRAD-P™

- CONTINUOUS CHECK MONITORING
- RUGGED, SPLASH PROOF
- WIDE RANGE COVERED
- GPS
- BATTERY OPERATED
- ONBOARD DATA STORAGE SERIAL PORT
- ENGINEERING UNITS USER SPECIFIED
- UNIQUE DATA COLLECTION SOFTWARE INCLUDED

- ELECTRONICS BASE STATION:
LAPTOP

DroneRAD-E™

- RS-232 PORT / **OPTIONAL**: USB PORT
- WIRELESS IN FLIGHT INTERFACE
- **OPTIONAL**: ALARM
- **OPTIONAL**: ENHANCED GPS
- **DETECTOR**: IP64
- **ELECTRONICS**: IP 63

DroneRAD-ST™

- GAMMA DETECTION
- SENSITIVE: 0.05 µR/HR to 2,000 R/hr
- **OPTIONAL**: ISOTOPE IDENTIFICATION MCA
- **OPTIONAL**: NEUTRON DETECTION
- **OPTIONAL**: 2"x 1" LaBr PROBE
- **OPTIONAL**: GAMMA TELESCOPE/COLLIMATOR FOR PRECISELY LOCATING A SOURCE

DroneRAD-P™

- ALPHA, BETA, GAMMA, C-14 DETECTION
- SENSITIVITY – 1×10^{-10} TO 1×10^{-5} µCi/cc (OR Ci/m³) - DEPENDS ON COUNT TIMES
- BUILT-IN MINI AIR PUMP 3 LPM
- BUILT-IN FLOW METER
- QUICK CHANGE FILTER
- MULTIPLE SPECIALIZED FILTER MEDIA ACCEPTABLE
- SNIFFER HOSE 3 FEET or USER SPECIFIED
- USB or **OPTIONAL** ETHERNET INTERFACE
- RECORDS CHANGES IN AIRBORNE CONCENTRATION BY LOCATION
- **OPTIONAL**: ALPHA SPECTRUM DETECTOR
- **OPTIONAL** AUTOMATIC ADJUSTMENT OF ALPHA SPECTRUM BASED ON ELEVATION
- **OPTIONAL** RADIATION PLUME MAPPING DATA SOFTWARE FOR POST-FLIGHT EVALUATION



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP

OTCQB - UCLE

AERIAL RADIATION & CHEMICAL DETECTION SYSTEM

FEATURES

DroneRAD™ Detector System

DESCRIPTION:

DroneRAD-ST™:

- Measures Gamma & X-Ray radiation & **OPTIONAL** Neutron levels.
- **OPTIONAL** downward looking Gamma & Fast Neutron spotters are available for building and facility air surveillance.
- **OPTIONAL:** Isotope identification.

DroneRAD-P™:

- Measures radiation levels of Alpha, Beta, Gamma for airborne gases and particulates.

SELECT THE DroneRAD PACKAGE

EASILY MOUNT THE DroneRAD DETECTOR System.

APPLICATION:

DroneRAD-ST

- Ground-based Gamma source detection
- Cosmic ray and solar wind measurements

DroneRAD-P

- Airborne radioactive plume mapping (Alpha, Beta, Gamma)

DATA:

DroneRAD-ST

- Gamma Spectra, from NaI or LaBr detector.
- OPTIONAL MCA**

DroneRAD-P

- Alpha, Beta Gamma Particulate plume concentration

DroneRAD-ST & DroneRAD-P

- Dose Rate
- Data points & time are logged with GPS coordinates.
- Data storage of both Spectra & Dose Rate ~

DroneRAD-ST

- Particulate Levels. ~ **DroneRAD-P**

DroneRAD-P

Air Pump, Filter Holder & Detector



DroneRAD-ST & DroneRAD-P DETECTOR FLIGHT PACKAGE



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP

OTCQB - UCLE

AERIAL RADIATION & CHEMICAL DETECTION SYSTEM

FEATURES

DroneRAD™ Detector System

DESCRIPTION:

DroneRAD-ST™

- Quantify Isotopes
- **OPTIONAL:** Identify Isotopes MCA
- GPS & Optional Mapping Software Provides Site Identification

DroneRAD-P™

- Measures levels of airborne gases & Particulates: Alpha, Beta, Gamma, C-14
- Plume mapping with unique software

ON BOARD – DroneRAD-ST™
DETECTOR: 2" x 2" NaI(Tl) Gamma Scintillator
OPTIONAL: 2"x 1" LaBr PROBE
Electronics:
Pre Amp
High Voltage
OPTIONAL: 1000+ Channel MCA
Microprocessor
Transmitter
Battery Pack
Camera
GPS

ON BOARD – DroneRAD-P™
DETECTOR: 1" diameter Thin Window GM
Electronics:
Pre Amp
High Voltage
Counter
Air Pump – 3 lpm
Flow Meter
Transmitter
Particulate Filter
Flow Meter
Battery Pack
Camera
GPS



**TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of US NUCLEAR CORP
OTCQB - UCLE

AERIAL RADIATION & CHEMICAL DETECTION SYSTEM

SENSOR INFORMATION

DroneRAD™ Detector System

SENSORS TYPES:

GM, NaI, LaBr, Chemical & Biological Sampling

DroneRAD-P: Simultaneous measurement of plume for Alpha & Beta Particulates, and aerosols

Filter Media: Paper, Charcoal

Data Units: Bq/m³ or µCi/liter (User selectable at time of purchase.)

Tagged with GPS, and flight path

DroneRAD-ST & ST-ID: Gamma sources

Data Units: cps, or mSv/h, (User selectable at time of purchase.)

Tagged with GPS, and flight path

Modes of Operation:

1) **PLUME SNIFFER – DRONERAD-P:** Fly the UAV through a plume; dual mode real-time data download and visual display of accumulated radioactive material on a filter (paper for particulates; charcoal for Iodine); **return to base** for further 'before/after' data analysis of filter paper.

2) **SEARCH TOOL – DRONERAD-ST:** Fly and transmit in real-time counts-per-second (cps) or mSv/h data up to 5 datapoints per second.

Viewing and plotting the data in real time during the flight with color coding or perform data download after flight on an aerial map using a color-coded limit scale via software.

3) **SEARCH TOOL – DRONERAD-ST-ID:** When the ST-ID detector is in use transmit and display an MCA spectrum in real time. With a very hot source isotope identification is possible.

4) **Waypoint Data Taking:** Data can be transmitted in real time during flight or stored on the drone (56 waypoints) for download after flight.

Data is databased by site, region, type of radiation measured, and survey index. Graphing and trending can be done on the data.

5) **Chemical Sensor Data:** Fly UAV with up to 5 sensors (designated from a list of over 20 chemical options at time of purchase) per flight.

Data is transmitted and plotted in real-time during flight and stored in files that can be replotted or imported into other software.

DroneRad Software Telemetry Radios: 433MHz or 915 MHz;stated maximum range of 1 mile with a clear line of sight. Results may vary due to environment, terrain and buildings.



**TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

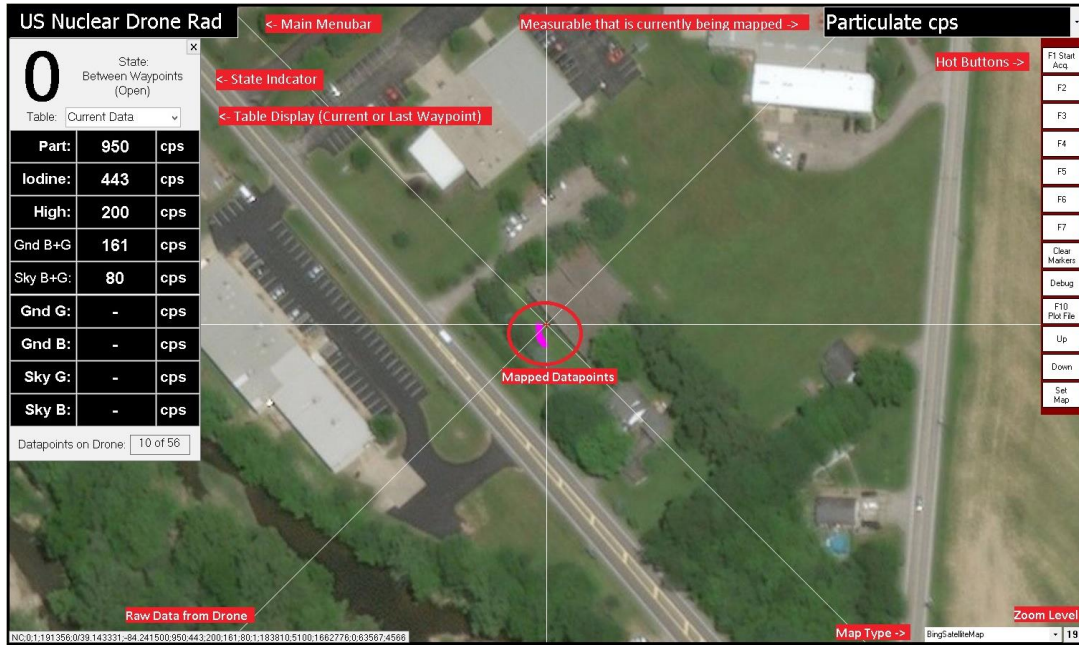
WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP

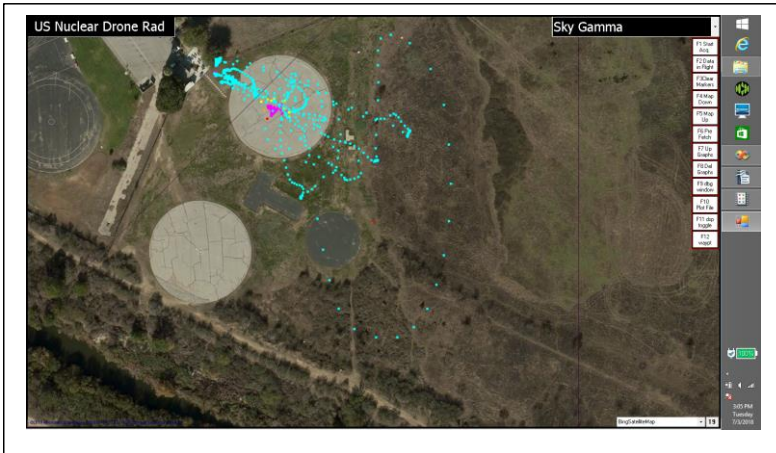
OTCQB - UCLE

AERIAL RADIATION & CHEMICAL DETECTION SYSTEM SENSOR INFORMATION DroneRAD™ Detector System

SCREEN SHOT SAMPLES OF SOFTWARE DATA



View of Software's Main Screen. The software is controlled using the 'hot buttons' on the right.



Sensors transmit in real-time counts-per-second (cps) or mSv/h data up to 5 datapoints per second. Viewing and plotting the data in real time during the flight with color coding or perform a data download after flight on an aerial map using a color-coded limit scale via software.



**TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP
OTCQB - UCLE

AERIAL RADIATION & CHEMICAL DETECTION SYSTEM SENSOR INFORMATION DroneRAD™ Detector System

The Software Allows Repeated Measurements and Databasing.



Figure 1 - By Region



Figure 2 - Trending

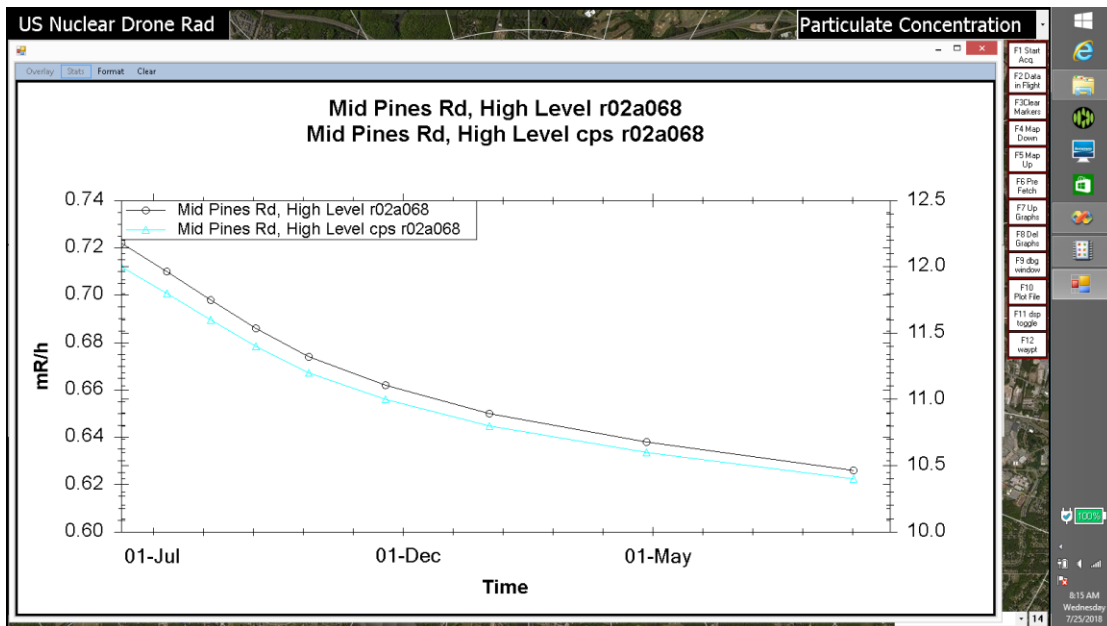


Figure 3 - Graph

The software accommodates *repeated measurements* and *databasing* within sub-regions that the user can define (Figure 1) which allows trending (Figure 2) and graphing (Figure 3) of the history of the data.

All data is indexed by region, sub-region, survey number, and quantity measured. The data is also store in files that can be imported into other software.



**TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP

OTCQB - UCLE

AERIAL RADIATION & CHEMICAL DETECTION SYSTEM

FEATURES

DroneRAD™ Detector System

DESCRIPTION: DroneRAD-P™

- The **Drone-RAD-P** uses standard or charcoal filters in TA's unique quick change, no leak holders to trap any airborne radio-nuclides. The filter is under constant surveillance via a GM detector.
- Air is drawn by a high volume pump through the filter and exhausted through an optional hose.
- Power is controlled by a rocker switch.

SPECIFICATIONS: DroneRAD-P™

Air Flow Pump:	Miniature 1-3 Liter/min Pump and Filter holder.
Range:	1×10^{-10} to 1×10^{-5} μ Ci/cc (or Ci/m ³) (Depends on count time)
Air Flow Meter:	Displays flow rate 0.5 – 3.0 LPM.
Filters:	Includes package of 100 glass Fiber and 10 charcoal filter papers. (Can also use membrane filters.)
OPTIONAL:	Sniffer Hose: Up to 3 Feet
Case:	Air Pump & Detector housed in polished blue aluminum.
Weight & Dimensions:	
Pump & Detector Assembly:	1.75" Diameter x 8.5" Long

NOTE: Supplied with 10 charcoal and 100 glass fiber filter disks.

Detector:	T-1210 GM Tube
Window:	Mica 1.5 - 2.0 mg/cm ²
Detector: Radiation	Alpha, Beta, Gamma
Biological Hazards:	User Specific Filter
Chemical Hazards:	User Specific Filter
Iodine:	Carbon Filter
Detects Particulates:	YES
Detects Aerosol & Reactive Gases*:	YES
Filter: Glass Fiber -	YES
Charcoal Filter Paper- 1" dia	YES
Iodine Sensitivity: (30 min)	5×10^{-8} μ Ci/cc
Public Release: (1×10^{-10} μCi/cc)	10 Hour exposure
Detects all airborne activity EXCEPT - H-3, Fe-55 and Noble Gases	YES



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP

OTCQB - UCLE

AERIAL RADIATION DETECTOR SENSITIVITY

DRONERAD-ST™ PERFORMANCE with NO SHIELDING

Using Cs137 & 2" Nal(Tl) Detector

- 1 Curie Cs-137 source is 0.38184 Rem/hr at 1 meter (3.8184E5 µRem/hr)
- 2 inch diameter (2 inches thick) Nal(Tl) Detector sensitivity to Cs-137 is 900 cpm per µR/hr.
- Typical background at 10 uR/hr induces a count rate of about 9,000 cpm in an unshielded detector.

For good MDA a 60 second Background count time is recommended.			4.65 (9,000) ^{1/2}	441 cpm	
			RADIATION LEVEL FOR 1 Ci Cs-137	COUNT RATIO FOR 1 Ci Cs-137	
DRONE ALTITUDE		ABOVE BACKGROUND			EASILY DETECTABLE
500 Meters (1,640 feet) above the ground. The cone of sensitivity is essentially infinite and the inverse square rule dominates the detection capability.					0.33 Ci if detector is directly over the source
500 Meters		0.015 µSv/hr	1.5 µR/hr	1,350 cpm	0.33Ci
250 Meters		0.06 µSv/hr	6.1 µR/hr	5,490 cpm	80 mCi
100 Meters		0.38 µSv/hr	38.2 µR/hr	34,380 cpm	12.8 mCi
50 Meters		1.527 µSv/hr	152.7 µR/hr	137,430 cpm	3.2 mCi
30.48 Meters		4.11 µSv/hr	411.0 µR/hr	369,900 cpm	1.2 mCi
			10 µCi Cs-137	10 µCi Cs-137	
1 Meter		0.0382 µSv/hr	3.82 µR/hr	3,438 cpm	10 µCi

- These calculations are based upon a 2 inch by 2 inch Nal(Tl) detector.
- The 2 x 2 Nal(Tl) detector's (standard) sensitivity, Gamma emitters: 50 KeV to 1.3 MeV ± 15% for Curies detected.
- Overall energy range 40 KeV to 5 MeV
- Other sizes and materials of detectors are available. LaBr has about a 30% higher efficiency and much better energy resolution than a Nal(Tl) detector.
- A 1 x 1 inch Nal(Tl) detector or a 3 x 3 inch Nal(Tl) detector are also available.
- Gamma range available 0.05 uR/hr tp 2,000 R/hr.



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP

OTCQB - UCLE

AERIAL RADIATION & CHEMICAL DETECTION SYSTEM

FEATURES

DroneRAD™ Detector System

DroneRAD™ GROUND STATION ELECTRONICS OPTIONS
GROUND STATION INCLUDES:
DRONERAD-E Electronics
DroneRAD-E Software
LAPTOP
ELECTRONICS - DroneRAD-E
Transponder
Amplifier & Signal Conditioner
Data Archive & Retrieval
Power: Rechargeable Battery Pack
Spectrum Receiver – DroneRAD-ST
USB Port & Cable
OPTIONAL: Alarm: Audio / Visual (User Settable)
OPTIONAL: Isotope Identification MCA – DroneRAD-ST-ID
OPTIONAL: Mapping Software for Post Flight Evaluation



**TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP

OTCQB - UCLE

AERIAL RADIATION & CHEMICAL DETECTION SYSTEM

FEATURES

DroneSensor™ Detector System

AERIAL RADIATION PLUME DETECTORS:

DroneRAD-P™ SERIES OPTIONS:

TYPICAL SYSTEM – (1) DETECTOR & (1) FILTER SYSTEM			
DRONERAD-P-T	(1) THIN WINDOW GM DETECTOR	(1) PARTICULATE FILTER DISC	DETECTS ALPHA, BETA, GAMMA TOGETHER
DUAL DETECTOR SYSTEM - (2) DETECTORS & (2) FILTER SYSTEM			
DRONERAD-P -2	(1) THIN WINDOW GM DETECTOR	(1) PARTICULATE FILTER DISC	DETECTS PARTICULATES & ALPHA, BETA, GAMMA, C-14 TOGETHER
DRONERAD-P -I	(1) THIN WINDOW GM DETECTOR	(1) CHARCOAL FILTER CARTRIDGE	DETECTS IODINE
ALPHA - (1) DETECTOR & (1) FILTER SYSTEM			
DRONERAD-P -A	(1) ALPHA SCINTILLATION DETECTOR (ZnS)	(1) PARTICULATE FILTER DISC	DETECTS ALPHA EMITTERS

AERIAL CHEMICAL PLUME DETECTORS:

DroneCHEM SERIES OPTIONS:

MODEL	TYPE OF CHEMICAL DETECTION
DRONECHEM	Various Airborne Chemical Agents
DRONECHEM-FX	Airborne Methane with A Flow Through Detector
DRONECHEM-LX	Airborne Methane with A Laser Detector – No Air Pump
DRONECHEM-WDE (908)	Warfare, Drugs, Explosives, Nerve Gas, Other Chemical Agents
DRONECHEM-2-IWC (CHEM-PROX)	Irritants, Warfare, Chemicals, Nerve Gas, Other Chemical Agents
CLIMATE DRONE METHANE	Dual Detector System Airborne Methane with A Laser Detector - DRONECHEM-LX Airborne Methane with A Flow Through Detector - DRONECHEM-FX
DRONECHEM-WW	Airborne Methane

MODEL	PUMP AIR FLOW	APPLICATION
TYPICAL	3 lpm (0.1 cfm)	Air Monitor: Detector and Filter
SAM	40 cfm (1132.6 lpm)	Air Sampler: Filter Only



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of US NUCLEAR CORP

OTCQB - UCLE

CHEMICAL SENSORS - Additional Chemical Detection Is Available Per Request

CO	Carbon Monoxide	VOC Diesel
NO2	Nitrogen Dioxide	LEL
SO2	Sulfur Dioxide	CH4 – Methane
Cl2	Chlorine	NH3 – Ammonia
CO2	Carbon Dioxide	H2S - Hydrogen Sulfide
O2	Oxygen	O3 - Ozone
Fine Particulates		Explosives
CWAs (Chemical Warfare Agents)		Drugs
Irritants		Temperature & Relative Humidity

SAMPLE OF AVAILABLE CHEMICAL DETECTORS:



DRONECHEM-FX
**METHANE FLOW THROUGH AIR
SENSOR**



DRONECHEM-LX
**METHANE LASER
SENSOR**



DRONERAD-P
**AIR PUMP, FILTER HOLDER
AND RADIATION DETECTOR**

ALL AERIAL PLUME DETECTORS INCLUDE:

DETECTOR SYSTEM

- BUILT-IN MINI AIR PUMP 3 LPM
- QUICK CHANGE FILTER
- MULTIPLE SPECIALIZED FILTER MEDIA ACCEPTABLE
- **OPTIONAL:** FLOW METER
- **OPTIONAL:** REMOTE ON/OFF AIR PUMP SWITCH
- **OPTIONAL:** VERTICAL AIR INTAKE TUBE - 3 FEET

GROUND STATION

- SOFTWARE
- USB or **OPTIONAL** ETHERNET INTERFACE
- RECORDS CHANGES IN AIRBORNE CONCENTRATION BY LOCATION
- **OPTIONAL** RADIATION PLUME MAPPING DATA SOFTWARE FOR POST-FLIGHT EVALUATION



**TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP

OTCQB - UCLE

CHEMICAL SENSORS:

MIX & MATCH AT TIME OF ORDER - Additional Chemical Sensors are Available Upon Request

CHEMICALS & LEL

Chlorine	CO ₂ Carbon Dioxide
Methane	NO ₂ Nitrogen Dioxide
Diesel Fumes & Particulates	SO ₂ Sulfur Dioxide
CO Carbon Monoxide	O ₃ Ozone
NH ₃ Ammonia	VOC
O ₂ Oxygen	CWAs (Chemical Warfare Agents)
H ₂ S Hydrogen Sulfide	Explosives
	Drugs
	Irritants

DRONESENSOR SERIES

FLY DETECTORS SEPARATELY OR IN COMBINATION

MODEL TITLE	DETECTION
DRONERAD-P	Radiation Plume Detector
DRONERAD-ST	Radiation Search Tool – Fixed Radiation Sources
DRONECHEM	Various Airborne Chemicals
DRONECHEM-FX	Airborne Methane with A Flow Through Detector
DRONECHEM-LX	Airborne Methane with A Laser Detector
DRONECHEM-WDE	Warfare, Drugs, Explosives, Nerve Gas
DRONECHEM-2-IWC	Irritants, Warfare, Chemicals, Nerve Gas
CLIMATE DRONE	Dual Detectors Airborne Methane with A Laser Detector - DRONECHEM-LX Airborne Methane with A Flow Through Detector - DRONECHEM-FX
DRONECHEM-WW	Airborne Methane via Works Well



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP

OTCQB - UCLE

AERIAL RADIATION & CHEMICAL DETECTION SYSTEM

FEATURES

DroneSENSOR™ Detector System

SPECIFICATIONS OF AERIAL RADIATION DETECTION SYSTEM:

DETECTOR WEIGHT & DIMENSIONS:

Approximate Volume:	144 cu. inches
Approximate Weight:	
Gamma spec:	<4 lbs – DroneRAD-ST
Alpha/Beta/Gamma spec:	<6 lbs – DroneRAD-P
Approximate Dimensions:	4" High x 10" Long x 2" Wide - DroneRAD-ST & DroneRAD-P

COMMUNICATION:

Integrates into Existing Formats.

POWER REQUIREMENTS - DroneRAD-ST & DroneRAD-P

Rechargeable Batteries Included.

SPECIFICATIONS ~

BASE STATION ELECTRONICS OPTIONS FOR BOTH RADIATION & CHEMICAL DATA:

LAPTOP - (INCLUDED)

DroneRAD-E
Data Software

ELECTRONICS: DroneRAD-E (TRANSPONDER):

OPTIONAL: Isotope ID:	DroneRAD-ST ONLY
Spectrum Receiver:	DroneRAD-ST ONLY
Power:	Rechargeable Battery Pack
Output Ports:	USB & Cable
Case:	Gasketed Case
Alarms:	OPTIONAL Visual / Audio – User Settable
Mapping Software:	OPTIONAL – for Post Flight Evaluation
Dimensions:	3" x 2" x 6"
Weight:	3 lbs



DroneRAD-E
RECEIVER / TRANSMITTER



DroneRAD-E
Laptop Lug In



DroneRAD-E
Laptop

ELECTRONICS OPTIONS: RS-232 serial circuit
In-place rechargeable batteries
Enhanced GPS



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

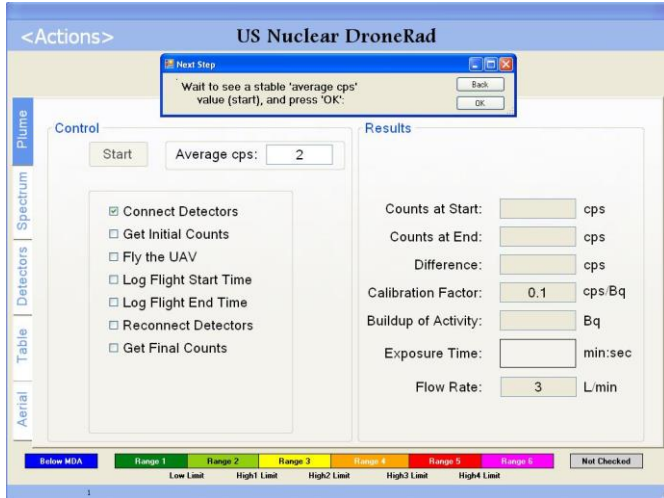
Divisions of  US NUCLEAR CORP

OTCQB - UCLE

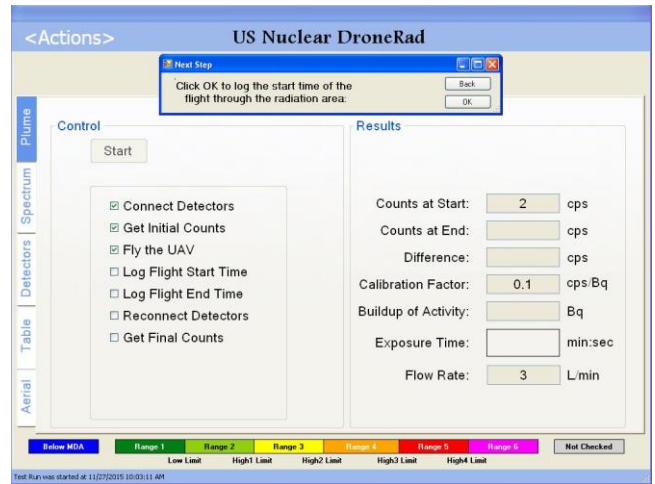
AERIAL RADIATION & CHEMICAL DETECTION SYSTEM

FEATURES

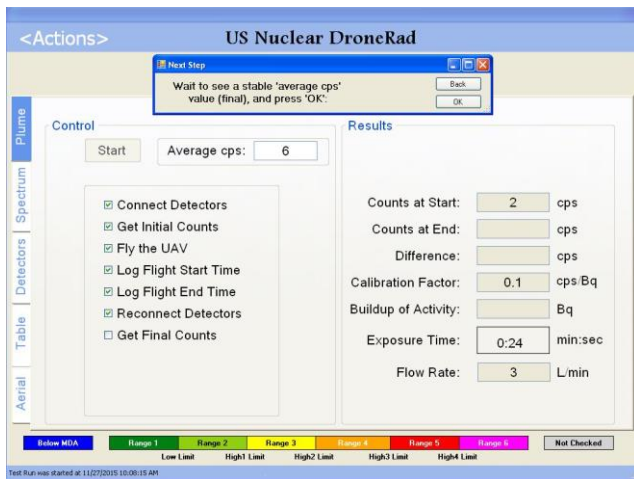
DroneSENSOR™ Detector System



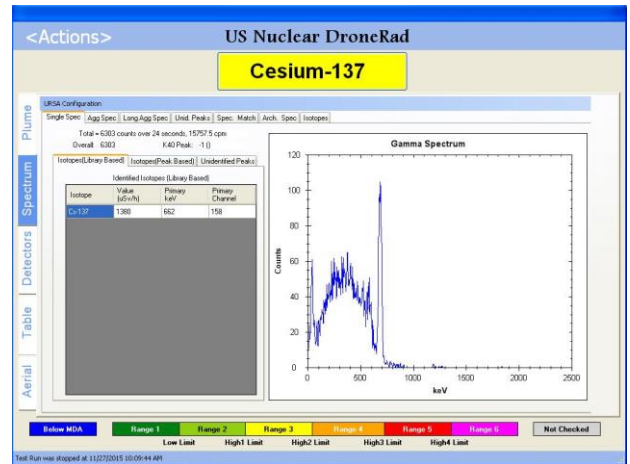
**DroneRAD-P
BEFORE FLIGHT**



**DroneRAD-P
BEFORE PLUME**



**DroneRAD-P
AFTER FLIGHT**



**DroneRAD-ST
SEARCH TOOL RESULTS**

LAPTOP - ELECTRONICS READ OUT DroneRAD-P & DroneRAD-ST SAMPLE

SOFTWARE SCREEN SHOT SAMPLES



**TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP

OTCQB - UCLE

AERIAL RADIATION & CHEMICAL DETECTION SYSTEM

FEATURES

DroneRAD™ Detector System

DroneSENSOR™ PACKAGE

INCLUDES:

- *Advanced Flight Platform*

QUADCOPTER (Standard)

- GPS
- Controllers
- DroneSENSOR Detector System
- DroneSENSOR -E - Electronics - Laptop
- Unique Data Collection Software
 - Wireless Interface
 - USB Port
 - Cords, Cables & Connectors
- Hard Shell Case for DroneSENSOR Package
 - See Specific Features
- OPTIONAL ~ Training

DroneRAD™ DETECTOR SYSTEM

INCLUDES:

- DroneRAD-ST Detector (User Specified)
- DroneRAD-P Detector (User Specified)
- Charcoal & Glass Fiber

Filters for DroneRAD-P

DroneRAD DETECTOR SYSTEM OPTIONS:

- ENHANCED GPS
- ALPHA SPECTRUM DETECTOR – DroneRAD-P
- NEUTRON DETECTOR– DroneRAD-ST
- LaBr DETECTOR– DroneRAD-ST
- GAMMA TELESCOPE/COLLIMATER– DroneRAD-ST
- ISOTOPE IDENTIFIER (MCA)– DroneRAD-ST-ID
- ALARM – AUDIO / VISUAL



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

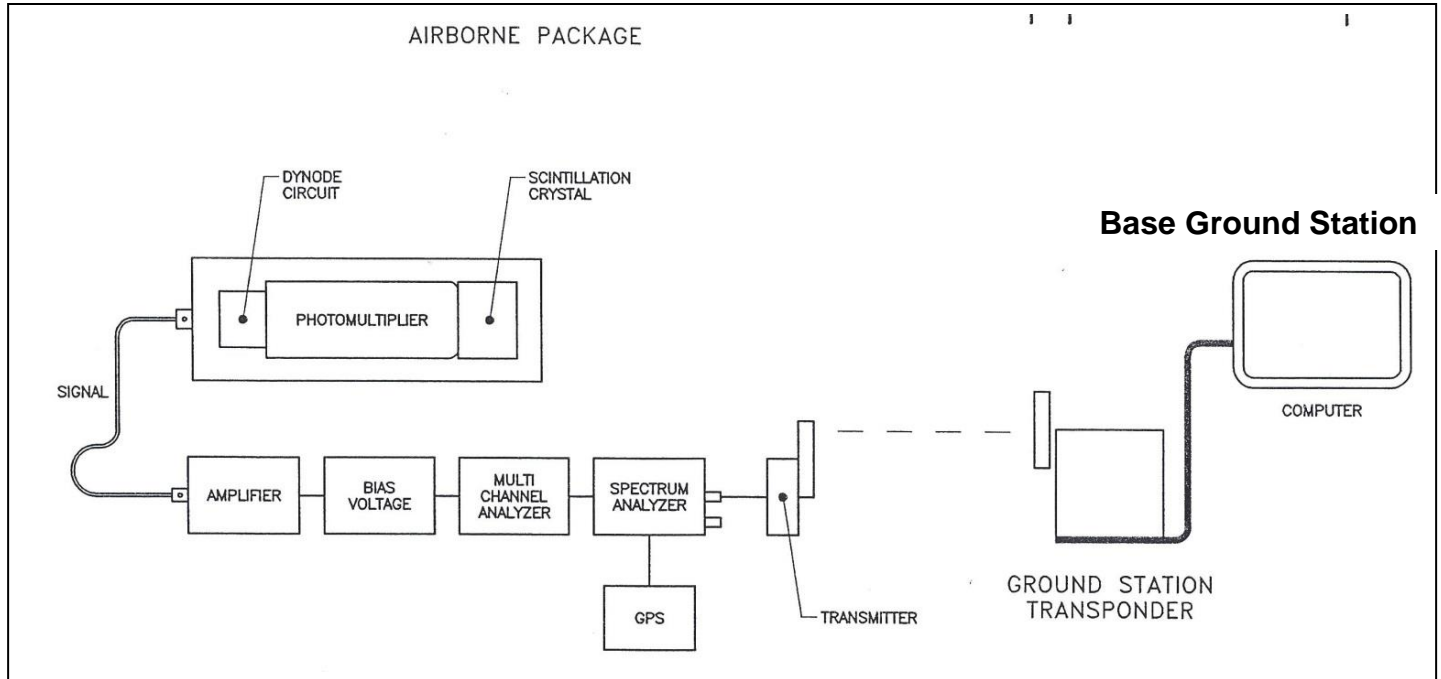
WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP

OTCQB - UCLE

AERIAL RADIATION & CHEMICAL DETECTION SYSTEM

FEATURES DroneRAD™ Detector System



DroneRAD-ST™ Detector Set Up



Search Tool DroneRAD-ST™



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP
OTCQB - UCLE

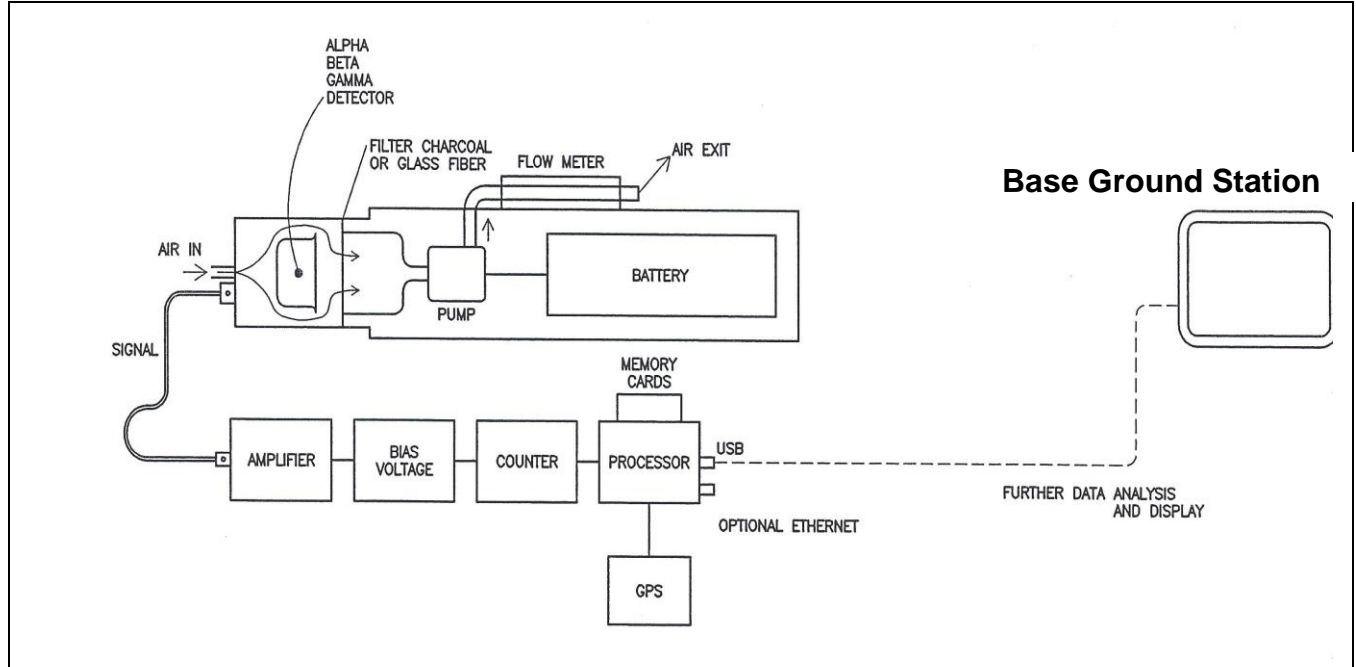
AERIAL RADIATION & CHEMICAL DETECTION SYSTEM

FEATURES

Advanced Flight Platform

QUADCOPTER

DroneRAD™ Detector System



DroneRAD-P™ Detector Set Up



**Plume Detector
DroneRAD-P™**



**TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY**

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP
OTCQB - UCLE



The best Advanced Drone Flight Platform will be Selected in Direct Response to Your Mission

TYPICAL FEATURES OF OUR ADVANCED FLIGHT PLATFORMS:

- Open PX4 flight stack:
Modify and adapt the Advance Flight Platform for your mission.
- Dedicated US based engineering, operations, and support team.
- Designed and assembled in United States.
- Training program for your team (At US Nuclear Corp, or on-site).
- Robust testing and validation methodology.
- Open & communicative team (We share CAD, test specs, engineering documents, wiki to help you integrate and succeed more quickly).
- In depth documentation - (Wiki, Knowledgebase, Tutorial videos).
- Customization - Our Engineering team is here to help you realize your integration or customization. We know how to get you in the air quickly and efficiently.

We have established partnerships with the best companies in the industry to help create a robust flight platform that can tackle any problem.

- 35lb Max payload.
- Quick release mounting system on top or bottom of aircraft.
- Adjustable Vibration Isolation included.
- Long Range Data link.
- Extensive accessory ecosystem.
- 33 Inch blades (1/5th the normal level of vibration).
- Flies (2) 16 AH batteries.
- 50 Minute flight time with no payload, 22 minute flight with 20lb payload.
- Folds to half its size with one finger folding.



TECHNICAL ASSOCIATES OVERHOFF TECHNOLOGY

7051 Eton Ave., Canoga Park, CA 91303
818-883-7043 (Phone) 818-883-6103 (Fax)

SAHIL@usnuclearcorp.com

WWW.TECH-ASSOCIATES.COM

Divisions of  US NUCLEAR CORP

OTCQB - UCLE