

FY21

OAR Radiological ER Readiness Report

Score	Points	FY21 % Readiness	Elements	Categories	Green 80% - 100%, Yellow 61% - 79%, Red 0% - 60%	Assessment Statement for Report
91.66	100.00	91.66%	95	Overall		EPA continues to demonstrate radiological emergency response readiness, scoring 91.6% in FY21 while delivering RadNet exposure rate measurement capability to 58%, or 81 fixed monitors.
12.58	15.00	83.87%	10	RadNet		
18.49	20.00	92.45%	28	Field Support		
18.39	20.00	91.95%	31	Analytical Support		
15.00	15.00	100.00%	6	Public Information		
13.25	15.00	88.33%	9	Data Management		
13.95	15.00	93.00%	11	Science Team		

Score	Points	% Readiness		RadNet	Status	Standard
2.00	2.00	100%	1	Facilities	Fully functional RadNet control room: Yes	The RadNet Control Room is fully functional with dedicated areas to perform quality assurance, data review and reporting. This includes remote, real-time telemetry to and from monitoring systems, and dedicated software and server infrastructure.
2.00	2.00	100%	2	Assets and Equipment	112 RadNet fixed monitors are operating: Yes	Greater than 80 percent of the 140 RadNet fixed monitors are operating.
0.58	1.00	58%	3		140 RadNet fixed monitors with exposure rate measurement capability: 81 out of 140	All 140 RadNet fixed monitors have exposure rate measurement capability.
1.00	1.00	100%	4		140 RadNet fixed monitors with telemetry: Yes	All 140 RadNet fixed monitors have telemetry permitting two-way data file transfers. Primary cell phone and backup satellite telemetry are functional.
0.00	2.00	0%	5		32 RadNet deployable monitors ready: Deployables are out of service. ORIA pursuing next generation deployable.	Greater than 80 percent of the 40 RadNet deployable monitors are in good repair and available for deployment.
1.00	1.00	100%	6	Contract Support	RadNet support contract includes ability to increase staffing: Yes	A contract is in place to increase the number of contract-provided staff to three (3) personnel to perform RadNet data review and evaluation.
1.00	1.00	100%	7		Current expedited RadNet repair task option available in contract: yes	A maintenance contract is in place with an expedited (within 72-hours) repair option available.
1.00	1.00	100%	8		Funding mechanism for increase in satellite telemetry use: yes	A funding mechanism is in place for potential extra costs associated with backup satellite telemetry use.
2.00	2.00	100%	9	Personnel	Two RadNet Control Room supervisors and one RadNet Quality Assurance Officer: yes	Three full-time RadNet personnel at the GS-13 level (or above) are certified (as per SOP criteria) for RadNet Control Room operations (two as supervisors and one as QA Officer).
2.00	2.00	100%	10		One RadNet Deployable program manager and one calibration and maintenance technician: Yes, Staff are available to perform these duties, and will resume these duties once the next generation deployables are brought on line.	One EPA employee is performing RadNet Deployable program management duties and one technician is performing RadNet Deployable calibration and maintenance operations duties.
				Field Support	Status	Standard
0.50	0.50	100%	11	Assets and Equipment	Functioning Mobile Command Post with communications: Yes	The Mobile Command Post is ready to deploy alongside the field team. The Mobile Command Post is fully functional and up-to-date, with a fully functional array of communications equipment.
1.00	1.00	100%	12		Support equipment ready for deployment: yes	Support equipment is ready for deployment including generators and additional communications equipment as needed.
1.00	1.00	100%	13		Hand-held equipment ready for deployment: yes	Hand-held radiation detection equipment is ready for deployment covering a wide range of possible exposure and contamination scenarios.

1.00	1.00	100%	14	Licenses and Accreditations	Air monitoring equipment ready for deployment: yes	Air monitoring equipment and supplies are ready for deployment covering a wide range of possible exposure and contamination scenarios.
1.00	1.00	100%	15		Sampling equipment and supplies are ready for deployment: yes	Sampling equipment and supplies (including personal protective equipment) are ready for deployment covering a wide range of possible exposure and contamination scenarios and a wide range of possible media.
1.00	1.00	100%	16		Field gamma spectrometry equipment is ready for deployment: yes	Field gamma detection systems (in-situ, HPICs, and scanning systems) are ready for deployment.
0.50	0.50	100%	17		NCRFO NRC license: yes	NCRFO holds a current Nuclear Regulatory Commission (NRC) license to cover field sources and samples.
0.50	0.50	100%	18		NCRFO QAFAP compliance: yes	NCRFO is in compliance with Quality Assurance Field Activities Procedures (QAFAP) procedures and guidance.
0.50	0.50	100%	19		NCRFO's RERT operations QA guidance compliance: yes	NCRFO's RERT operations are in compliance with current Quality Management Plan/Quality Assurance Manual and Standard Operating Procedures for all field activities.
0.50	0.50	100%	20	Procedures and Programs	NCRFO radiation safety program compliance: yes	NCRFO is in compliance with a current Radiation Safety Program and Plan.
0.34	0.50	68%	21		Twenty-five (25) field team members capable of being deployed to the field: 17 staff medically cleared	At least twenty-five (25) people have fulfilled Health and Safety minimum requirements for deployment as part of the field team (e.g., field health and safety training, driver safety)
0.60	1.00	60%	22		Fifteen deployable field team members capable of performing environmental sampling: 9 of 15 ready for environmental sampling (and ready for field deployment)	At least fifteen (15) people have demonstrated capability in environmental sampling and are ready for deployment as part of the field team.
1.00	1.00	100%	23		Fifteen deployable field team members capable of donning and doffing of PPE: 17 staff qualified in PPE (and ready for field deployment)	At least fifteen (15) people have demonstrated capability in utilizing personal protective equipment and are ready for deployment as part of the field team.
0.93	1.00	93%	24		Fifteen deployable field team members capable of performing air sampling operations: 14 of 15 qualified in air sampling (and ready for field deployment)	At least fifteen (15) people who have demonstrated capability in air sampling operations and are ready for deployment as part of the field team.
0.87	1.00	87%	25		Fifteen (15) deployable field team members capable of performing field instrument operation: 13 of 15 qualified in field instruments (and ready for field deployment)	At least fifteen (15) people who have demonstrated capability in field instruments operations and are ready for deployment as part of the field team.
1.00	1.00	100%	26	Personnel	Ten deployable field team members capable of performing sample control operations: 17 qualified in sample control (and ready for field deployment)	At least ten (10) people who have demonstrated capability in sample control and are ready for deployment as part of the field team.
1.00	1.00	100%	27		Ten deployable field team members capable of performing decontamination operations: 17 qualified in decontamination operations (and ready for field deployment)	At least ten (10) people who have demonstrated capability in field decontamination and are ready for deployment as part of the field team.
1.00	1.00	100%	28		Ten deployable field team members capable of performing contamination control and field decontamination operations: 13 qualified in contamination control and field decontamination (and ready for field deployment)	At least ten (10) people who have demonstrated capability in contamination control and performing field decontamination and are ready for deployment as part of the field team.
0.50	0.50	100%	29		Two deployable field team Safety Officers: 2 of 2 safety officers qualified	The field team includes two (2) trained Safety Officers who are ready for deployment as part of the field team.
0.50	0.50	100%	30		Two deployable field team Radiation Safety Officers: 3 qualified staff to perform as Radiation Safety Officer	The field team includes two (2) trained Radiation Safety Officers who are ready for deployment as part of the field team.
0.50	0.50	100%	31		One deployable field team member to serve as a Technology Officer: 2 qualified field technology officers	The field team includes a trained Information Technology Officer who is ready for deployment as part of the field team.
0.25	0.50	50%	32		Four deployable field team CDL drivers: 2 of 4 CDL drivers	The field team includes four CDL drivers who are ready for deployment as part of the field team.
0.50	0.50	100%	33		All RERT field team personnel are enrolled in an annual medical monitoring program: yes	All RERT field team personnel are enrolled in an annual medical monitoring program.
				Qualifications		

0.39	0.50	78%	34	Exercise/Response Participation	All identified field team personnel are medically cleared for deployment to the field: 17 of 22 members are medically ready	All identified deployable field team personnel are medically cleared for deployment to the field.
0.50	0.50	100%	35		All RERT field team personnel are current in HAZWOPER: 22 of 22 current HAZWOPER trained	All RERT field team personnel must maintain current HAZWOPER certification.
0.11	0.50	22%	36		Identified RERT field team personnel are in a respiratory protection program with fit test: 4 of 18 current in program	Identified RERT field team personnel must be in a respiratory protection program and must have a current fit test.
0.50	0.50	100%	37		All RERT field team members participate in an annual exercise/training/response: yes	All members of the RERT field team should participate in at least one readiness exercise (field or table top), training event or an actual response once per year.
0.50	0.50	100%	38		All RERT field team members are proficient in using individually assigned software applications: yes	All members of the RERT field team should be proficient in using individually assigned software applications.
				Analytical Support	Status	Standard
1.00	1.00	100%	39	Facilities	Fully functional and equipped radioanalytical laboratory: yes	The radioanalytical laboratory is fully functional with dedicated areas to perform sample receipt and screening, radiochemistry, instrumentation and counting, quality assurance, data review and reporting, storage and disposal of samples and supplies. Must include necessary equipment, such as hoods, sinks, gas supplies, and vacuum.
0.50	0.50	100%	40	Licenses and Accreditations	Laboratory NRC License: yes	The laboratory maintains a current Nuclear Regulatory Commission license to cover laboratory sources and samples.
0.50	0.50	100%	41		Fixed laboratory NELAP Accreditation: yes	The fixed laboratory is enrolled in the National Environmental Laboratory Accreditation Program (NELAP) and maintains accreditation.
0.25	0.50	50%	42		Mobile laboratory NELAP Accreditation: Not for Gas proportional, no accreditation for gas proportional	The mobile laboratory is enrolled in the National Environmental Laboratory Accreditation Program (NELAP) and maintains accreditation for gamma spectroscopy and gas proportional counting.
0.50	0.50	100%	43	Procedures and Programs	NAREL maintains a copy of the permit on file: yes	The laboratory maintains a copy of the current National Pollutant Discharge Elimination System (NPDES) permit for disposal of wastewater, issued to the U.S. Airforce Base.
0.50	0.50	100%	44		Laboratory QA guidance compliance: yes	The laboratory is in compliance with current Quality Management Plan/Quality Assurance Manual and Standard Operating Procedures for all laboratory activities.
0.50	0.50	100%	45		Laboratory Chemical Hygiene Program and Plan compliance: Yes	The laboratory is in compliance with a current Chemical Hygiene Program and Plan.
0.50	0.50	100%	46		Laboratory Radiation Safety Program and Plan compliance: Yes	The laboratory is in compliance with current a Radiation Safety Program and Plan.
0.50	0.50	100%	47	Equipment and Assets	Basic laboratory equipment ready for use in the fixed laboratory: yes	The fixed laboratory maintains basic laboratory equipment (e.g., balances, centrifuges) ready for use in sample preparation.
0.50	0.50	100%	48		Survey equipment ready for use in the fixed laboratory: yes	The fixed laboratory maintains survey equipment ready for use for sample receipt.
0.50	0.50	100%	49		Ovens and furnaces, blenders and grinders ready for use in the fixed laboratory: yes	The fixed laboratory maintains oven and furnaces, and grinders and blenders ready for use in sample preparation.
0.50	0.50	100%	50		Fully functional fixed laboratory LIMS: yes, but need to upgrade to a new LIMS in the next couple of years	The fixed laboratory maintains a fully functioning Laboratory Information Management System (LIMS) for tracking all sample information.
1.00	1.00	100%	51		Instrumentation and counting equipment ready for use in the fixed laboratory: yes	The fixed laboratory maintains instrumentation and counting equipment ready for use for analysis of samples.
0.50	0.50	100%	52		Specialized storage and containment facilities ready for use: yes	The fixed laboratory maintains ready for use specialized storage and containment facilities for materials including those requiring refrigeration, acids and flammables.
1.00	1.00	100%	53		Two prime movers with generators with MERL and SPL: Yes	Operational and current inspections on two (2) tractors, two (2) generators and the two (2) trailers for the mobile environmental radiation laboratory (MERL) and sample preparation laboratory (SPL).

0.50	0.50	100%	54	Personnel	Two personnel transport vehicles: Yes	Two (2) administrative vehicles are required to transport entire MERL team.
0.50	0.50	100%	55		Fully functional/operational satellite dish, internet access, and smart phones to support the MERL team: Yes (There is no VOIP because the RERT MERL members have government issued smart phones to communicate with.)	Fully functional/operational satellite dish, internet access, and smart phones to support the MERL team
0.50	0.50	100%	56		MERL team survey equipment is calibrated and ready for use: Yes	The MERL team maintains survey equipment ready for use for sample receipt.
1.00	1.00	100%	57		MERL team instrumentation and counting equipment ready: Yes	The MERL team maintains instrumentation and counting equipment ready for use for analysis of samples, including Gamma spectroscopy system (four (4) detectors) and Gas Proportional Counting system (eleven (11) detectors).
0.50	0.50	100%	58		Fully functional MERL team LIMS: Yes	The MERL team maintains a fully functioning LIMS for tracking all sample information.
0.60	1.00	60%	59		Four personnel and one assistant to conduct sample receipt and preparation for the fixed laboratory: Currently NAREL has two GS-13 and one assistant.	At least four (4) people at the GS-13 level or higher and one assistant certified in sample receipt and preparations procedures for the fixed laboratory.
0.54	1.00	54%	60		Thirteen personnel to conduct radiochemistry procedures for the fixed laboratory: Currently NAREL has seven GS-13.	At least thirteen (13) people at the GS-13 level or higher certified in radiochemistry procedures for the fixed laboratory.
0.75	1.00	75%	61		Seven personnel and one assistant to conduct counting room procedures for the fixed laboratory: Currently NAREL has 5 GS-13 and one assistant	At least seven (7) people at the GS-13 level or higher and one assistant certified in counting room procedures for the fixed laboratory.
0.50	0.50	100%	62		Four personnel to conduct Quality Assurance for the fixed laboratory: yes	At least four (4) people at the GS-13 level or higher certified in Quality Assurance for the fixed laboratory.
0.50	0.50	100%	63		Two personnel to perform data review and reporting, RadResponder, and LIMS functions for the fixed laboratory: yes	Two (2) people at the GS-13 level or higher to perform data review and reporting (including Rad Responder) duties and Laboratory Information Management System (LIMS) functions for the fixed laboratory.
0.50	0.50	100%	64		Three laboratory personnel to serve as two Radiation Safety Office/Safety and Health Environmental Managers and an assistant: yes	Two people at the GS-13 level or higher trained as a Radiation Safety Office/Safety and Health Environmental Manager and one assistant.
0.50	0.50	100%	65		One Laboratory Supervisor for the fixed laboratory: yes	One person at the GS-13 level or higher to serve as the Laboratory Supervisor for the fixed laboratory.
1.00	1.00	100%	66		Four MERL team personnel with a commercial driver's license and current health card: Yes (4 of 4)	Two (2) personnel with a current commercial driver's license operators for each tractor/trailer system with current health cards.
0.50	0.50	100%	67		Two MERL team trained and qualified personnel for sample receipt and preparation: Yes	Two (2) trained and qualified personnel for sample receipt and preparation for the MERL team.
0.75	1.00	75%	68		Four MERL team trained and qualified analysts: No (0.75)	One Primary and one alternate analyst for each instrument system (gamma spectroscopy/gas proportional).
0.50	0.50	100%	69		Three MERL management team personnel trained and qualified in their duty position: Yes	A MERL management team consisting of trained and qualified RERT Commander, MERL Group Leader and Quality Assurance Officer.
				Public Information	Status	Standard
2.00	2.00	100%	70	Personnel	Two trained senior Public Information Officers: Yes, Jessica and Tony are GS-13 or higher and are ready to serve as Radiological PIOs.	At least two (2) people at the GS-13 level or higher meet functional description-specific training, knowledge and requirements and are ready to serve as Radiological Public Information Officers.
3.00	3.00	100%	71		Three additional trained Radiological Public Information Officers: Yes, Stefanie, Lauren and Ray are ready to serve as Radiological PIO's.	At least three (3) additional full-time personnel meet functional description-specific training, knowledge and requirements and are ready to serve as Radiological Public Information Officers.
2.00	2.00	100%	72		Two fully qualified web support personnel: Yes. Marisa and Ellen have 300/400 training and can provide web support.	At least two (2) personnel are fully qualified and ready to serve as Web Support personnel.

3.00	3.00	100%	73	Training	All Public Information Officers have completed necessary KLP training: yes	All personnel ready to serve in the Public Information Officer function for the incident have successfully completed Incident Command System Public Information Officer KLP training (ICS 403) and all prerequisites.
2.00	2.00	100%	74		All Public Information Officers have completed training for EOC deployment: Yes, PIO training requirements for EOC deployment would be equivalent to the ICS KLP training described above	All personnel ready to serve in the Public Information Officer function for the incident have successfully completed all training for EOC deployment.
3.00	3.00	100%	75	Exercise/Response Participation	Exercise/response participation for all Public Information Officers: Yes. All PIOs were either involved in the Mars 2020 launch, or the FEMA COVID-19 Community-Based Testing Site or Vaccine Task Group media monitoring team.	All radiological Public Information Officers should participate in at least one readiness exercise (field or table top), training event or participate in an actual response once per year.
				Data Management	Status	Standard
1.30	2.00	65%	76	Software and tools proficiency	Access to and proficiency in using three systems for all Environmental Unit members: Yes for CM Web and RadResponder, No for GeoPlatform (have access but not proficient), 2 of 3 platforms	Qualified Environmental Unit members should have access to and proficiency in using the HQ EOC Common Operating Picture via the EPA GeoPlatform, CMWeb, and RadResponder.
2.00	2.00	100%	77		Access to and proficiency in using RadResponder for all field team members: Yes, NCRFO, RPD, NAREL	Qualified field team members should have access to and proficiency in using RadResponder.
0.75	1.00	75%	78	Training	Completion of Environmental Unit Leader KLP Training and prerequisites: Yes (Chen-training/experience, Prioleau-training, Arrigoni-training, Mosser-training/experience, Snead-training, DeCair-training/experience); No (Hallam, Clark); EU leader training cancelled due to COVID-19, 6 of 8 deployable	Each individual deployable to the Environmental Unit function for the incident has successfully completed Incident Command System Environmental Unit Leader KLP training and all prerequisites for EOC deployment.
1.00	1.00	100%	79		Qualified Environmental Unit members and field team members have training in the use of RadResponder or SCRIBE: Yes, NCRFO, NAREL, RPD	Qualified Environmental Unit members and field team members should have training in the use of RadResponder or SCRIBE.
1.20	2.00	60%	80	Experience and Breadth in Support	Five full-time members of the Environmental Unit: No (Chen, Mosser, DeCair), 3 of 5 members	At least five full-time experienced individuals are qualified and rostered to serve as members of the Environmental Unit.
1.00	1.00	100%	81	Equipment (hardware, software, etc.)	Cell phone issued to each Environmental Unit team member: Yes (Prioleau, Chen, Arrigoni, Clark, Mosser, Snead, DeCair, Hallam)	Each member of the Environmental Unit should have access to cell phone.
2.00	2.00	100%	82		Laptop installed with SCRIBE or access to RR for each Environmental Unit Team member: Yes (Prioleau, Chen, Arrigoni, Clark, Mosser, Snead, DeCair, Hallam)	Each member of the Environmental Unit should have an agency-issued laptop installed with SCRIBE or access to RadResponder.
2.00	2.00	100%	83		Cell phone issued to each field team member: yes, NCRFO, NAREL, RPD	Each member of the field team should have access to cell phone.
2.00	2.00	100%	84		Tablet installed with the RadResponder application for each field team member: YES, or phone app	Each Field Team should have an agency-issued tablet installed with the RadResponder application.
				Science Team	Status	Standard
1.00	1.00	100%	85	Software and tools proficiency	Proficiency in four tools for each science team member: Yes (CMWeb, IMAAC Products, and RR - Prioleau, Chen, Hallam, Arrigoni, DeCair, Snead, Clark, Ralston, Stuenkel, Mosser)	All members of the science team should be proficient (formal training or comfortable using) in the following software or tools: CMWeb, IMAAC Products and RadResponder (RR). Establish annual training attributes
0.80	1.00	80%	86		Proficiency in TurboFRMAC for each Advisory team member: Yes, (Prioleau, Chen, Hallam, DeCair - received AS-100 training with some experience during exercises; Arrigoni-AS-100 training cancelled due to COVID-19), 4 of 5 software/tools	All members of the Advisory Team for Environment, Food, and Health should be proficient in the following software and tools: TurboFRMAC and RadResponder.
0.91	1.00	91%	87		Proficiency in eleven tools for at least one science team member each: Yes, WEST (Schultheisz, Clark), VARSKIN (none), RESRAD (Prioleau, Snead, Hallam), RASCAL (Prioleau, Hallam, Snead, DeCair, Chen), Hysplit (Ralston), VSP (Prioleau, Snead, Mosser), ProUCL (Prioleau, Snead), GENII (Snead), MILDOS (Egidi), DandD (Snead, Hallam), and the PRG Calculators (Snead, Prioleau, Mosser), 10 of 11 software/tools	At least one member of the science team must be proficient in each of the following software or tools: WEST, VARSKIN, RESRAD, RASCAL, Hysplit, VSP, ProUCL, GENII, MILDOS, DandD, and the PRG Calculator.

1.00	1.00	100%	88	Qualifications	Dose assessor members meet the appropriate qualifications: Yes (Prioleau, Hallam, Chen, DeCair, Ralston, Stuenkel, Mosser, Arrigoni)	Dose assessors, including members of the Advisory Team for Environment, Food and Health, should be considered experts on the health effects and environmental impacts resulting from exposure to ionizing radiation. They should be experts on radiation-related health effects, PAGs, the FRMAC Assessment Manual, and the tools listed above. They should also have a thorough understanding of Consequence Management missions as discussed in Volume I of the FRMAC Assessment Manual. In addition, dose assessors should possess the following: Degree in natural science or engineering that includes study in health physics, engineering, radiological science, chemistry, physics, biology, mathematics, and/or calculus; or combination of education and experience that provide a comparable understanding of sciences applicable to health physics. Members of the science team which are not dose assessors should be nationally recognized experts in their field of study, e.g., radioactive- and mixed-waste management, radioactivity in drinking water.
1.00	1.00	100%	89	Training	Each science team member meets up to six training criteria, as appropriate: Yes (Prioleau, Hallam, Chen, DeCair, Arrigoni, Snead, Clark, Mosser, Ralston, Stuenkel)	Members of the Science Team should have training in advanced health physics, dose assessment, the Incident Command System (ICS-100, 200, 700, and 800), PAGs, Quality Assurance, and FRMAC Liaison, as commensurate with their position.
2.00	2.00	100%	90	Experience and Breadth in Support	Four full-time members of the Advisory Team: Yes (Prioleau, Hallam, Chen, DeCair, Arrigoni-in training, with at least 3 backup staff members in the regions)	At least four full-time experienced individuals are qualified and rostered to serve as members of the Advisory Team for Environment, Food, and Health.
2.00	2.00	100%	91		Four full-time members of the science team, including two experts in radioactive- and mixed-waste management: Yes (Ralston, Stuenkel, Mosser, Snead - and for rad waste/mixed waste - Schultheisz, Clark)	At least four full-time experienced individuals (not members of the Advisory Team for Environment, Food, and Health) are qualified and rostered to serve as members of the Science Team. At least two full-time experienced individuals are nationally recognized experts in radioactive- and mixed-waste management.
1.64	2.00	82%	92	Exercise/Response Participation	Exercise/response participation for each member of the science team: Yes (Prioleau, Hallam, Snead, DeCair, Chen, Arrigoni, Clark, Mosser, Ralston), No (Stuenkel, Schultheisz), 9 of 11 members participated	All members of the science team should participate in at least one readiness exercise (field or table top) or training event or participate in an actual response once per year.
1.60	2.00	80%	93		Exercise/response participation for each Advisory team member: Yes (Prioleau, Arrigoni, Chen, DeCair); No (Hallam) 4 of 5	Members of the Advisory Team for Environment, Food, and Health should participate in at least one regional- or national-level exercise each year. During the exercise, they should have performed and directed or have evaluated dose assessments or dose assessment procedures under non-emergency situations as a representative of the Advisory Team for Environment, Food, and Health.
1.00	1.00	100%	94	Equipment (hardware, software, etc.)	All necessary hardware devices available to each team member: Yes (cell phone, mobile hotspot, laptop)	Each member of the Science Team should have access to cell phone, mobile hotspot, and laptop
1.00	1.00	100%	95		Laptop fully installed with proficient software for each team member: Yes	Each member of the Science Team should have an agency-issued laptop installed with all software for which the science team member needs to be proficient.
91.66	100.00	91.66%		Totals		