Successes of the DOD Environmental Laboratory Accreditation Program

Environmental Measurement Symposium
August 2023

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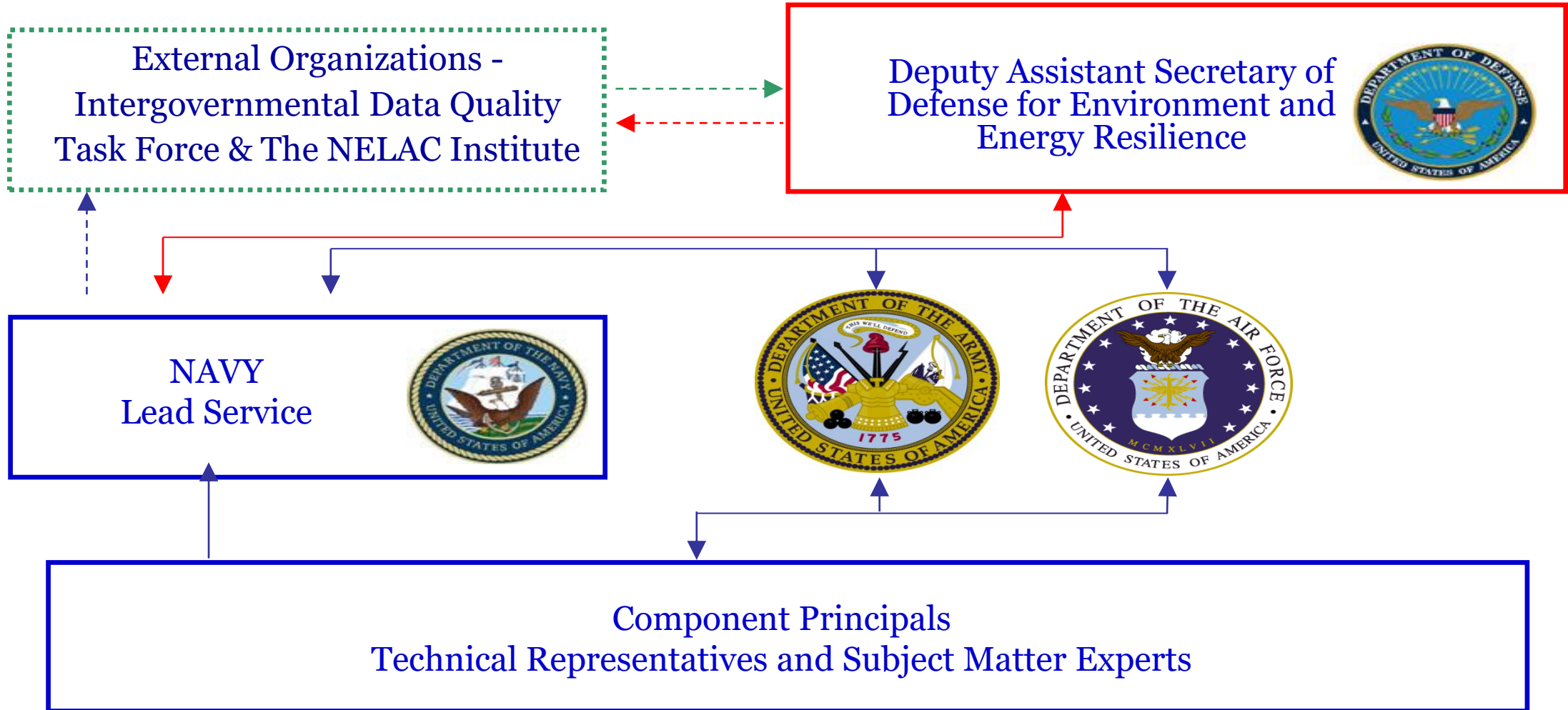
Topics

- Background on EDQW

- History of DoD Laboratory Review and Approval Process

- DoD ELAP

  - Establishment

  - Program Management

  - Status

- Future of the program and issues

Environmental Data Quality Workgroup

- Develop and recommend policy related to sampling, testing, and quality assurance for environmental programs to eliminate redundancy, streamline programs, improve data quality, and promote data integrity.

- Coordinate the exchange of information among DoD components.

- Develop DoD issuances to implement environmental quality systems and promote cost effective government oversight.

- Implement and provide oversight of the DoD Environmental Laboratory Accreditation Program (DoD ELAP).

DoD EDQW

External Organizations - Intergovernmental Data Quality Task Force & The NELAC Institute

Deputy Assistant Secretary of Defense for Environment and Energy Resilience

NAVY
Lead Service

Component Principals
Technical Representatives and Subject Matter Experts

Background
Inspector General Audits (1996 – 1997)

- DoD IG Findings

  – "Organizations reviewed were not efficient and effective in the procurement and administration of environmental testing contracts"

- EPA IG Findings

  – "EPA had developed many critical elements necessary for a strong and effective QA program
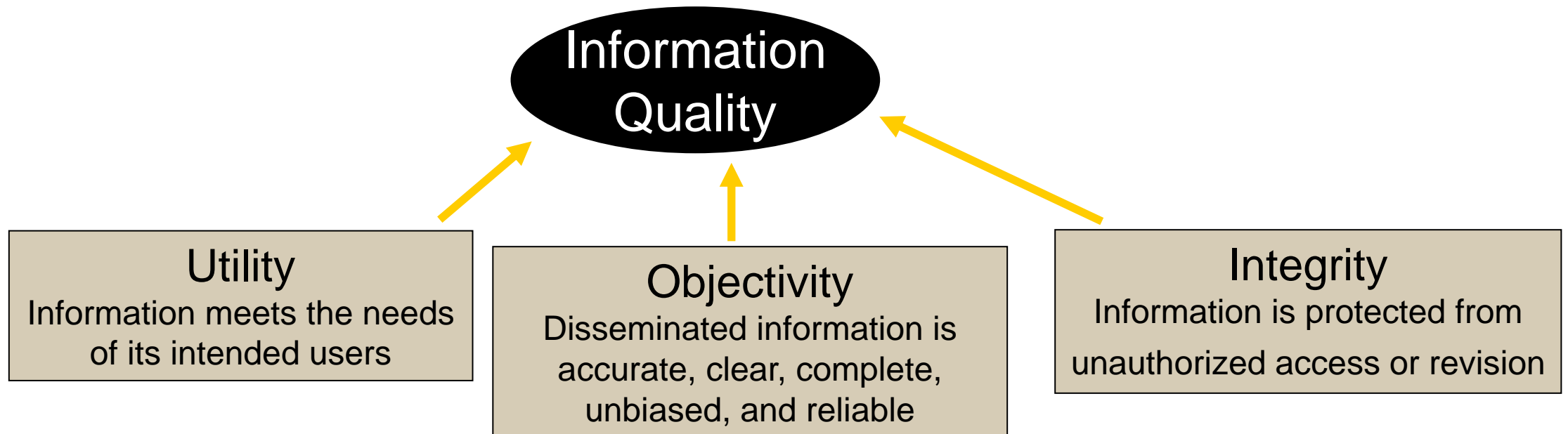
  BUT

  – "Managers had not demonstrated commitment to fully develop and implement the program"

DoD Information Quality Guidelines

Ensuring Quality of Information Disseminated to the Public by the Department of Defense February 2003, developed in accordance with Section 515, Treasury and General Government Appropriations Act (Public Law 106-554)

Information Quality

Utility
Information meets the needs of its intended users

Objectivity
Disseminated information is accurate, clear, complete, unbiased, and reliable

Integrity
Information is protected from unauthorized access or revision

Environmental Data must be *"capable of being substantially reproduced"*

DoD Quality Systems Manual for Environmental Laboratories (QSM)

- Provides baseline requirements for the establishment and management of quality systems for laboratories performing analytical testing services for the DoD.

- Utilizes ISO/IEC 17025 TNI Standards as the base requirements

- Grey boxes

- LCS Study

- Method Specific Requirements

DoD Environmental Laboratory Approval

- Each DoD Component had their own process

  – Confusion

  – Redundant

- Participation

  – Laboratories limited in ability to participate

- Reciprocity

- DoD/projects bear the costs

- Limited Flexibility

  – Emerging Contaminants

  – New methods

DoD Environmental Laboratory Accreditation Program (DoD ELAP)

- Established 1 October 2009 to provide a unified DoD program through which laboratories can demonstrate competency and document conformance to the international standard ISO/IEC 17025 as implemented by the DoD Quality Systems Manual for Environmental Laboratories (DoD QSM).

    - Promote reciprocity;

    - Promote fair and open competition;

    - Streamline procurement process;

    - Promote the collection of data suitable for their intended uses; and

    - Allow DoD to focus on project specific reviews

- Program implementation in DERP Manual and DOD Instruction 4715.15

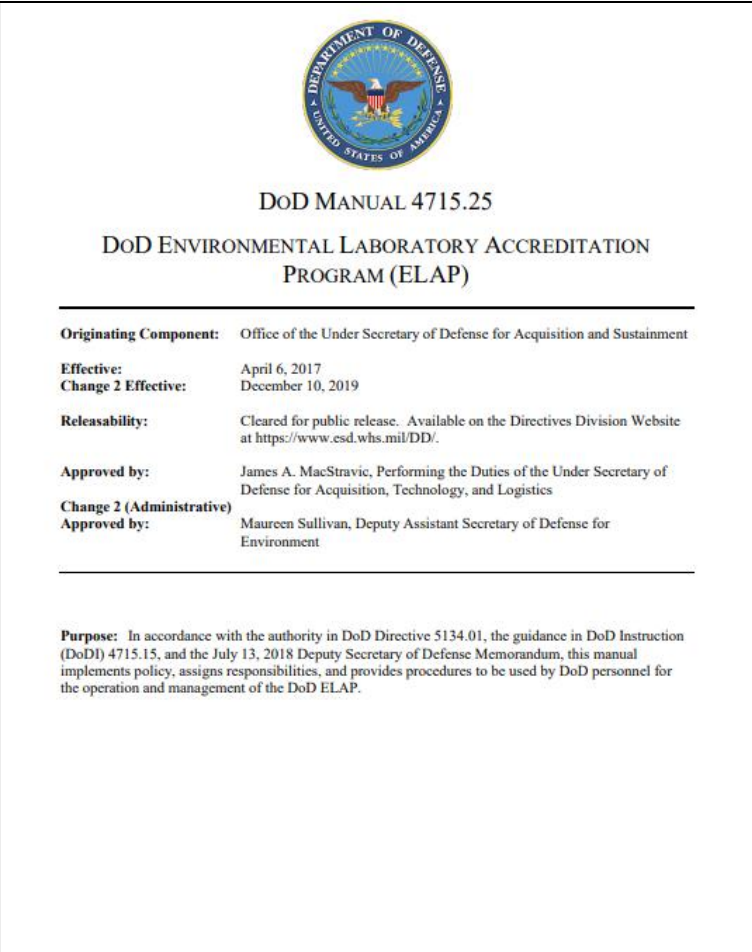# DoD Environmental Laboratory Accreditation Program (DoD ELAP)

- Accreditation Bodies (AB) perform assessments

- EDQW provides administration/oversight

- ABs:

    – American Association for Laboratory Accreditation (A2LA)

    – Perry Johnson Laboratory Accreditation, Inc. (PJLA)

    – ANSI National Accreditation Board (ANAB)

    – International Accreditation Service (IAS) **NEW**

DoD ELAP Management

- DoD Manual 4715.25 DoD ELAP Implementation Guide

- Went through DoD SD106 Process

- Published in the Federal Register

  - Received No comments

- Supplemented by Internal DoD EDQW SOPs

DoD MANUAL 4715.25

DoD ENVIRONMENTAL LABORATORY ACCREDITATION PROGRAM (ELAP)

Originating Component: Office of the Under Secretary of Defense for Acquisition and Sustainment

Effective: April 6, 2017
Change 2 Effective: December 10, 2019

Releasability: Cleared for public release. Available on the Directives Division Website at https://www.esd.whs.mil/DD/.

Approved by: James A. MacStravic, Performing the Duties of the Under Secretary of Defense for Acquisition, Technology, and Logistics

Change 2 (Administrative)
Approved by: Maureen Sullivan, Deputy Assistant Secretary of Defense for Environment

Purpose: In accordance with the authority in DoD Directive 5134.01, the guidance in DoD Instruction (DoDI) 4715.15, and the July 13, 2018 Deputy Secretary of Defense Memorandum, this manual implements policy, assigns responsibilities, and provides procedures to be used by DoD personnel for the operation and management of the DoD ELAP.

DoD ELAP Management

Sections of DoD Manual 4715.25:

- Maintaining the DoD QSM

- Recognizing Accreditation Bodies

  - Conditions and Criteria

- Performing Government Oversight

  - Witnessing Assessments

  - Reviewing Reports

- Conducting Project-specific Laboratory Approvals

- Handling Complaints

Supplemented by Internal DoD EDQW SOPs

- General
  - 72 laboratories accredited
  - 2 newly accredited laboratories
  - 1 laboratory currently seeking accreditation

DoD ELAP Status – (as of 6/23/2023)

AB	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
A2LA	17	19	21	17	19	22	25	25	22	27	29	30	24
PJLA	31	32	32	32	34	31	26	27	29	28	31	27	23
ANAB*	24	22	28	30	29	32	39	41*	11	11	11	14	24
LAB*	*	*	*	*	*	*	*	*	31	32	28	31	28
IAS	0	**	**	**	**	**	**	**	**	**	**	**	**
Total Labs	**72**	**73**	**81**	**79**	**82**	**85**	**90**	**93**	**93**	**98**	**99**	**102**	**99**

*ANAB acquired LAB December 2015.
**IAS rec'd DoD ELAP recognition late 2022. No assessment notifications rec'd as of 6/23/2023.

Future of DoD ELAP and Issues

DoD QSM Update

- Version 5.3
  - Compliant with ISO/IEC 17025:2017

- Updated to Version 5.4
  - Released October 2021
  - Only change from 5.3 was inclusion of Table B-24 for EPA Draft Method 1633

- Under revision to Version 6.0
  - Updating formatting and numbering to be consistent with ISO/IEC 17025:2017
  - Anticipated release CY2023

QSM 6.0

- The terms "document" and "record" will remain and be aligned with ISO 17025-2017 language.
  - "The laboratory shall document a procedure and maintain records"
- Significant effort is being made to remove unenforceable requirements
  - "The laboratory shall consider…"
  - Text devoted to philosophy, guidance, and examples will be limited.

Future of DoD ELAP and Issues

PFAS Laboratory Capacity Issue

- Currently there are 20 laboratories accredited under DoD ELAP for PFAS analysis
    - 20 laboratories accredited for aqueous samples
    - 19 laboratories accredited for solid samples
    - 7 laboratories accredited for tissue samples
- Currently many projects seeing extensive turn-around times for analysis
    - 4- 8 weeks (or even longer)
- Problem only getting worse

Future of DoD ELAP and Issues

PFAS Laboratory Capacity Issue

- Evidence exists that some DoD ELAP laboratories have capacity but are under-utilized

- Issue appears to be contracting related

- Working with OSD to investigate options to reach some of the under utilized laboratories

2023 Joint DOE/DoD Environmental Monitoring & Data Quality Workshop

3-Day Workshop Featuring:
- DoD/DOE Quality Systems Manual v6.0 Rollout & Training
- DOE Consolidated Audit Program - Accreditation Program
- DoD Environmental Laboratory Accreditation Program
- Data Quality Objectives Development
- PFAS and EPA Method 1633
- Data Validation Guidelines
- Data Usability

Workshop Dates: September 19-21, 2023
Location: Shades of Green on Walt Disney World Resort in Orlando, FL
View agenda and register here: https://doe-dod.projectenhancement.com
Hotel Reservations: https://doe-dod.projectenhancement.com/hotel

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