

AMUG Strategic Planning

Ideas for AMUG Group Discussions

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Purpose of the AMUG

- Provide a forum to:
 - Exchange Information,
 - Discuss Mutual Problems,
 - Develop a Sound Technical Basis for Air Monitoring Practices,
 - Develop Unified Strategies for Air Monitoring, and
 - Help Ensure Regulatory Compliance

Initiatives and Tools

- Website
- Annual Meetings
 - Spring technical meeting
 - HPS meeting session
- Standards development
- *Methods for Sampling Airborne Radioactivity* Book
- Individual collaborations and assistance
- Relationships with other groups
 - Meeting existing needs
 - Developing new opportunities
- Advancing an “informatics” agenda

Suggested Informatics Guidelines*

1. Emphasize literacy and develop critical thinking;
2. Develop and use real-life data examples;
3. Stress conceptual understanding rather than mere knowledge of procedures;
4. Foster life-long learning and active discussions;
5. Use technology for developing conceptual understanding and for analyzing and sharing data; (e.g., databases, simulation and modeling, etc.)
6. Use assessments to improve and evaluate the efficacy and impact of these activities.

*as adapted by Mark Hoover from the American Statistical Association (ASA) “*Guidelines for Assessment and Instruction in Statistics Education (GAISE)*” which are available at <http://www.amstat.org/education/gaise/> .

Paradigm for Air Sampling Objectives

BASIC AEROSOL CHARACTERIZATION

Understanding relevant physicochemical and biological properties of the aerosols of interest

WORKER HEALTH PROTECTION

Ensuring that worker exposures are within allowed limits and As Low As Reasonably Achievable (ALARA)

ENVIRONMENTAL MONITORING

Ensuring that environmental releases of aerosols are within allowed limits and ALARA for environmental and public health concerns

PROCESS QUALITY ASSURANCE AND CONTROL

Ensuring that processes and process controls are operating properly

EMERGENCY PREPAREDNESS AND RESPONSE

Providing a basis for appropriate actions when things go wrong

DEMONSTRATION OF COMPLIANCE

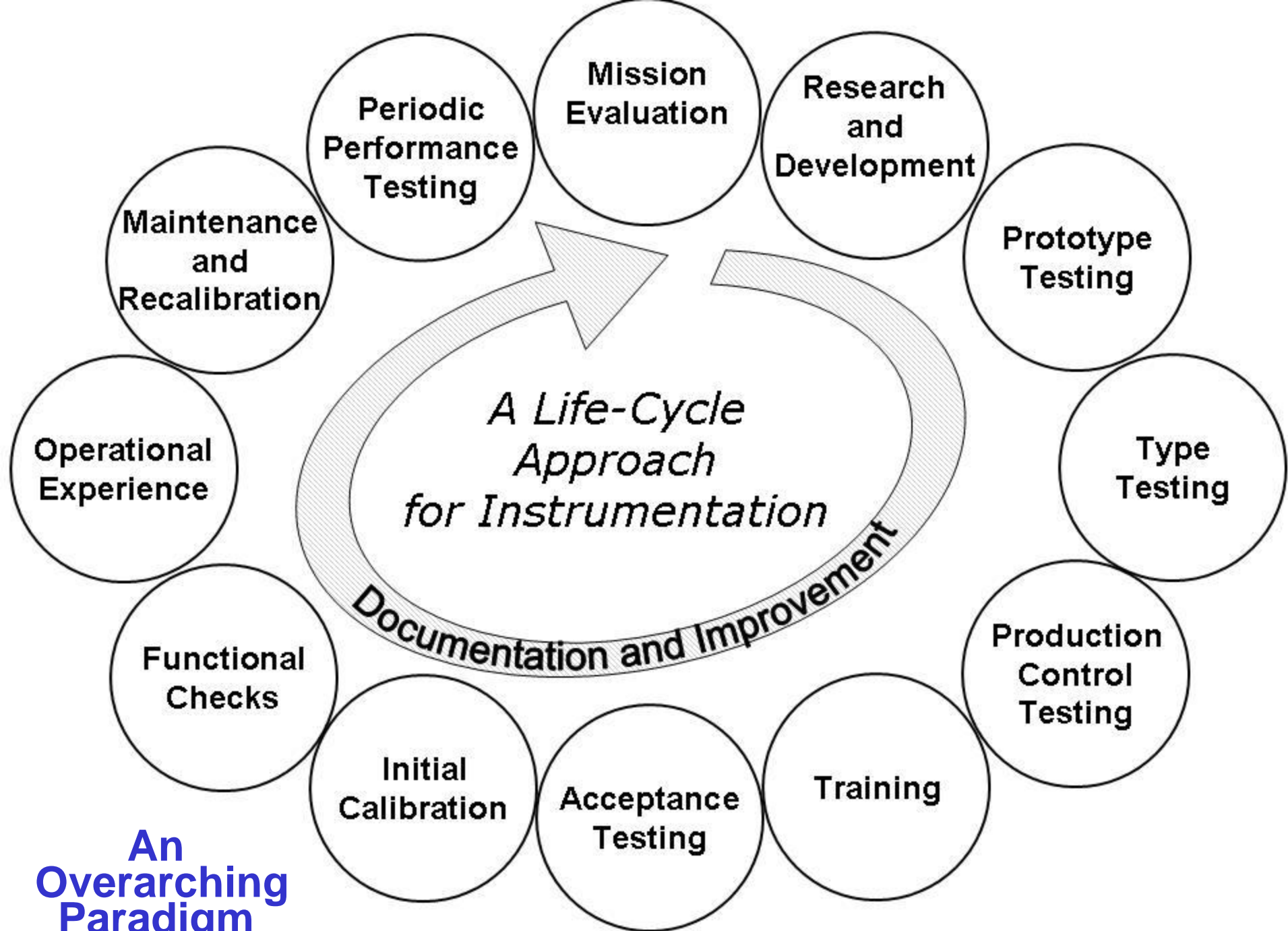
Documenting that administrative and regulatory requirements are met

RESEARCH

Advancing a comprehensive understanding of the behavior, measurement, and control of aerosols

Graded Approach to Aerosol Characterization

Level 1	Level 2	Level 3
<i>Initial Screening and Detection</i>	<i>Comprehensive Characterization and Assessment</i>	<i>Routine Monitoring and Control</i>
<ul style="list-style-type: none"> • Process knowledge • Gross mass or activity counting • Optical particle counting • Condensation particle counting • Microscopy 	<ul style="list-style-type: none"> • Elemental composition • Chemical composition • Particle size <ul style="list-style-type: none"> - Physical - Aerodynamic - Thermodynamic - Electrical mobility • Morphology • Surface area • Biological solubility • Etc. 	<ul style="list-style-type: none"> • A necessary and sufficient subset of Level 1 and 2 methods for the material and situation of interest



**An
Overarching
Paradigm**

Questions ?



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