

**Scientific Working Group for the
Analysis of Seized Drugs
SWGDRUG Conference
August 7-9 2007
Chicago, Illinois, USA**

Attendees:

Nelson A. Santos, Drug Enforcement Administration, Chair
Scott Oulton, Drug Enforcement Administration, Secretariat
Susan Ballou, National Institute of Standards and Technology
Suzanne Bell, West Virginia University
Sylvia Burns, Forensic Science Service, England
Gary Chasteen, Southwestern Association of Forensic Scientists
Garth Glassburg, American Society of Crime Laboratory Directors (ASCLD)
Linda Jackson, Mid-Atlantic Association of Forensic Scientists
Tohru Kishi, National Research Institute of Police Science, Japan
Richard Laing, Health Canada
Jack Mario, Northeastern Association of Forensic Sciences and ASTM
Jerry Massetti, California Association of Criminalists
Osama Ohtsuru, National Research Institute of Police Science, Japan
Robert Ollis, Southern Association of Forensic Scientists
Richard Paulas, Mid-Western Association of Forensic Scientists
Peter Poole, Drug Enforcement Administration
Robert Powers, Connecticut Department of Public Safety
Catherine Quinn, Victoria Forensic Science Center, Australia
Erkki Sippola, European Network of Forensic Science Institutes (ENFSI)
Chris Tindall, Metropolitan State College, New Jersey
Eileen Waninger, Federal Bureau of Investigation
Udo Zerell, Bundeskriminalamt, Germany

Not present:

Iphigenia Naidis, Division for Policy Analysis, United Nations Office on Drugs and Crime
Michael Bovens, European Network of Forensic Science Institutes (ENFSI)

1. Welcome

The meeting was opened by Nelson Santos, SWGDRUG Chair, who welcomed all of the participants. Nelson thanked Susan Ballou and NIST for co-sponsoring this meeting. Invited guests included Osama Ohtsuru, National Research Institute of Police Science, Japan and Peter Poole, Drug Enforcement Administration. Nelson noted that Erkki Sippola is serving as proxy for Michael Bovens, representative of ENSFI and Robert Ollis is replacing Conrad Roberson as representative of the Southern Association of Forensic Scientists.

2. Goals

Nelson Santos stated that the primary goal of this meeting is to prepare a document delineating the SWGDRUG recommendations regarding uncertainty and reporting of uncertainty. Nelson gave a target date of January 2008 for crafting proposed recommendations that will be voted on at the next SWGDRUG meeting. Additionally, the goal is to present these proposed recommendations at the American Academy of Forensic Science Meeting in February 2008 and seek public comment for a period of time.

3. Uncertainty Discussion

Rick Paulas gave a presentation on Uncertainty of Measurement as obtained from the Forensic Quality Services (FQS) website.

Presentation Summary:

- What ISO 17025 requires regarding uncertainty of measurement (UM)
- How to measure uncertainty of measurement
- When to measure UM
- What to do about recording and reporting UM
- UM applies only to quantitative data

Jerry Massetti led the initial discussion on uncertainty which focused on both theoretical issues and practical considerations for the needs of the client. It was determined that the scope of the proposed recommendations should focus first on an assessment as to when uncertainty considerations were relevant to the client's situation, then on an assessment of their practical application to the forensic drug analysis. Details regarding net weight determination and calculation of quantitative measurements would be subsidiary considerations under this general scope as would the future question regarding the uncertainty of qualitative analysis methods. Supplemental documents would then reference the specifics of how to carry out actual uncertainty calculations with examples.

Robert Ollis gave a presentation on "Why Use Control Charts? A method of determining trends, drift, and factors that can affect quality".

Presentation Summary:

- Georgia Bureau of Investigation's use of control charts to monitor the system-wide quantitation of cocaine samples
- How the readability (precision) of different analytical balances can affect the measurement uncertainty of net weight determinations in multiple unit evidence submissions suggesting that extensive guidance on the use of balances and mass standards could be a necessary consideration when developing SWGDRUG recommendations.

Jack Mario gave a presentation entitled, “Introduction to Measurement Uncertainty, Metrology and Related Topics”.

Presentation Summary:

- Characterization of Metrology: Definition, Classification, History, and Organizations that Create and Publish Metrological Standards
- Nature of Measurements
 - Terminology and International Units
 - Measurement Systems
 - Significance of Statistics
- Measurement Uncertainty: Determination and Reporting

Nelson Santos re-iterated the approach to developing uncertainty guidelines as outlined earlier by Jerry Massetti. Members were given the following assignments:

1. Assessment of uncertainty considerations and the client’s needs. Breakout group to answer the questions on when and why (e.g. jurisdictional requirements). (Part 1)

Breakout Group 1 Members:

Sylvia Burns, Catherine Quinn, Robert Powers, Gary Chasteen, Erkki Sippola, Jerry Massetti, Nelson Santos

2. Application of general principles of uncertainty. Breakout group to focus on items to consider when determining uncertainty for three main categories—weight, quantitation and qualitative analysis. (Part 2)

Breakout Group 2 Members:

Bob Ollis, Suzanne Bell, Garth Glassburg, Linda Jackson, Udo Zerell, Peter Poole, Scott Oulton

3. Training/reporting of uncertainty (Part 3)

Breakout Group 3 Members:

Rick Paulas, Tohru Kishi, Richard Laing, Eileen Waninger, Chris Tindall, Susan Ballou, Jack Mario

All breakout groups were to consider references (GUM, ISO, etc.) and supplemental document examples that might need to be incorporated into the final documents.

4. Review of Preliminary Drafts by Breakout Groups

The breakout groups each met three times; with the core committee reconvening in between to make sure each group was making appropriate progress. Substantial progress was made in crafting language for all parts, however Part 2 needed further work. In general Part 2, which was

the “how” section, needed to be written in broader terms. If further amplification of the recommendations is necessary, then additional work on supplemental documents with examples would need to be prepared. A recommendation was made that any “how-to” examples regarding calculating uncertainty to be reviewed by someone outside of the committee who was qualified in statistics.

5. Time Table for Preparation of Final Drafts

After briefly editing the language in the document, the preliminary drafts were sent back to the breakout groups for additional work.

The time table for completion is as follows:

August 9, 2007-September 28, 2007: Continuing work within the breakout groups to prepare documents to be merged into a final draft form.

September 28, 2007: Subcommittee breakout chairs should send their updated documents to Linda Jackson/Jerry Massetti. Chairs of the breakout groups are:

- Group 1: Jerry Massetti
- Group 2: Suzanne Bell
- Group 3: Richard Laing

September 28, 2007 to October 26, 2007: Linda and Jerry will be responsible for collating and editing the documents for continuity and flow between sections.

October 26, 2007: Linda will send out the collated document for distribution to all committee members for review and comments.

December 21, 2007: All comments on the collated document are to be sent back to Linda and Jerry. Linda and Jerry will prepare the document in final draft form for approval at the next SWGDRUG committee meeting.

Week of January 21, 2007—Proposed SWGDRUG meeting date.

6. SWGDRUG Website

Scott Oulton reported that the website has not been substantively updated since the last meeting. Minutes from the January 2006 are still pending and have not been posted on the website. Some committee members noted discrepancies with their personal information posted on the “Core Committee” page. Scott requested that all members review the website and suggest changes, updates or improvements.

Scott noted that SWGDRUG documents have been downloaded frequently. He reminded the committee that the official SWGDRUG documents are the PDF file versions. The HTML

versions are intended for rapid download and easy search capabilities. Increased activity has been observed on the website overall, and Scott projects about 5000 unique visitors this year.

Scott shared comments and questions that had been received on the website. The new addition of botanical analysis to Part III B of the Methods of Analysis/Drug Identification section has generated a lot of questions by visitors. There was some concern that SWGDRUG recommendations might be misused to justify the identification of marijuana by use of morphological characteristics alone without the requisite expertise as stated in the recommendations. Extensive questions regarding the SWGDRUG recommendations on the use of hyphenated techniques, specifically GC/MS, also suggest there may be some confusion regarding the intention of the SWGDRUG recommendation. Discussion ensued on whether or not rewording or commentary was necessary. It was suggested that the committee prepare a list of answers to FAQs to clarify any confusion on some of the recommendations.

7. Core Committee Business

Changes to the current SWGDRUG Recommendation document were presented for approval. The document that incorporates these changes will be issued as the 3rd edition 2007-08-09. Changes include:

- An update of the committee membership and participant list.
- Addition of the names of new participants and of affiliation changes for current committee members.
- Removal of the dates of participation for present and former committee members. The updated list will no longer contain the years in which participation occurred.
- Correction of typographical errors in the 2nd edition.

All changes will be displayed in red font. The obsolete edition of the SWGDRUG documents will be archived.

A motion to accept the document changes was made by Linda Jackson. The motion was seconded by Gary Chasteen. No further discussion ensued. Unanimous approval was made by the committee to accept the changes.

Susan Ballou discussed the procedure for travel reimbursement.

Scott Oulton will e-mail the minutes of the meeting to the core committee members for comments/approval. Proposed changes or approval of the minutes should be e-mailed back to Scott.

8. Presentation of Plaques/Closing

Plaques of appreciation were presented to the following departing members:

Erkki Sippola (2000-2006)
Gary Chasteen (2000-2007)

Tohru Kishsi (2002-2007)

Conrad Roberson (1999-2006) (in absentia)

Nelson Santos closed the meeting and thanked all members for their effort.

The next meeting of the core committee is tentatively scheduled for the week of January 21, 2007. A location in Florida is under consideration as a possible meeting site.

Minutes respectfully submitted by Peter Poole on August 13, 2007.