WORHSHOP ON ACCELERATOR OPERATIONS

August 6-10, 2012 SLAC National Accelerator Laboratory

Hosted by SLAC and LBNL

The 8th international Workshop on Accelerator Operations will be held at SLAC National Accelerator Laboratory. August 6-10, 2012. The series of Workshops on Accelerator Operations brings together professionals involved in dayto-day operation of accelerators with the goal of sharing information. By learning how others address such topics as staffing, training, documentation, commissioning, safety and maintenance, attendees can improve the efficiency of their own operations. The format is intended to foster interaction, with a combination of scheduled talks, open discussions, and submitted posters.

Program Topics:

Operator Development Managing Safety **High Power Beams** Superconducting Systems X-Ray FELs **Reliability & Availability** Communication **Recommissioning &** Decommissioning

Emergency Preparedness Adapting to Change **Optimizing Diagnostics** Automation Unique tools for small problems

Program Committee: Dan Johnson FNAL Elichi Takada NIRS Kazuro Furukawa KEK Larent Hardy ESRF Jim Morel LBNL DESY Michael Bieler Michael Stanek. SLAC Peter Ingrassia BNL GSI Petra Schuett Qin Qing IHEP **Rossano Giachino CERN** Violeta Toma TRIUME Wenzhi Zhang SSRF Glen Johns ORNL Noel Okay JLAB

For more information:

www-conf.slac.stanford.edu/wao2012

WAO 2012 Summary

Workshop on Accelerator Operations Hosted by SLAC National Accelerator Laboratory & Lawrence Berkeley National Laboratory

August 10, 2012 at SLAC





Thank you to WAO Local Support staff

Helen O'Donnell **Barbara Hemstad** Lisa Adair Wanda Elliot Bernadette Espiritu **Queenie Huang** Naomi Nagahashi Sharon Oden Judy Pena

IT Support – Ken Zhou



WAO 2012 Statistics

Participants 106

Research Facilities 38

Accelerator Engineering Corporation Alba Synchrotron Facility ANL **ARRONAX / Subatech** Australian Synchrotron BESSY BNI **Canadian Light Source Canadian Nuclear Safety Commission** CERN DFSY **Diamond Light Source** Fermilab GSI HIT Indiana University Cyclotron Operations Institute of High Energy Physics ISIS Jefferson Lab KEK

Nations: 14AustraliaRepublic of KoreaCanadaSpainChinaSwedenFranceSwitzerlandGermanyTaiwanItalyUnited KingdomJapanUnited States

Jefferson Lab KFK Korea Atomic Energy Research Institute LANL LBNL LNL-INFN-IT Mass. Gen. Hospital National Institute of Radiological Sciences, Japan National Synchrotron Radiation Research Center NSCL Research Center for Electron Photon Science, Tohoku University Cyclotron and Radioisotope Center, Tohoku University **RIKEN** Shanghai Institute of Applied Physics Sincrotrone Trieste **SLAC** SNS SYNCHROTRON SOLEIL The Svedberg Laboratory TRIUMF

WAO 2012 Summary



"It's a Workshop, Not a Conference!"

Share information, participate

- questions, answers, successes, failures
- nearly every participating lab contributed Broad range of topics
- that is the nature of accelerator operations Variety of communication methods
 - Prepared talks
 - Posters
 - Open discussions
 - Tours
 - Keynote Speaker
 - Discussions during the breaks, meals

SLAC

Intro to several facilities – How We Do Business

- Accelerator details, Organization, Scheduling staff

Developing Staff

- Training, Retention, Advancement
- Formal conduct of Ops, Structured training, & Skill Management vs. Informal On-the-Job training
- Additional responsibilities
- Supplementary projects, "2nd jobs"

Safety Systems, Tools, Culture

Disaster recovery, lessons learned

- prepare your Operators with guidance & tools to deal with the unexpected

-SLAC

Optimizing group reaction to changing circumstances Operations has key role in efficient diagnostic development

- Ops/Controls collaboration
- Ops creation of Intuitive GUI or HMI

Automation where possible

- but ensure understanding of what's underneath

Special Challenges

- unique systems, hazards, configurations

Tools for Reliability, Availability tracking, Communication

- Commercial software (BlockSIM, Stockbook)
- sharing software between labs (eg. logbooks)
- UPS power feed 'flywheel' system



Sleep Research

- physiological responses
- sleep disorders
- simple measures (light exposure, sleeping environment)
- Slides of the talk will be posted on the WAO website
- Further Questions for Dr. Kushida can be emailed to WAO2012.slac.lbnl@gmail.com



Posters - detailed solutions to several problems

- water leaks, instrumentation, web access to controls, standards, etc.

Poster authors: send poster pdf's to Eiichi. We'll get them on WAO2012 website.

Discussions

Balance rigid procedures & freedom* to explore (& fail)

*within limits/constraints

Control Room summary & brainstorming

(temp control, longer range KVM devices, Access control)

Ideas for Future WAO sessions

Let the Program Committee know if you're interested in hosting a future WAO.

WAO 2012 Program Committee thanks you for your participation!

Dan Johnson, FNAL Eiichi Takada, NIRS Kazuro Furukawa, KEK Larent Hardy, ESRF Jim Morel, LBNL Michael Bieler, DESY Michael Stanek, SLAC Peter Ingrassia, BNL Petra Schuett, GSI Qing Qin, IHEP Rossano Giachino, CERN Violeta Toma, TRIUMF Wenzhi Zhang, SSRF Glen Johns, ORNL Noel Okay, JLAB