

# Tribble-II Sub-Panel Meeting

*Sam Aronson, Lab Director  
September 7, 2012*



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Science

# BNL Overall Strategy



## Vision

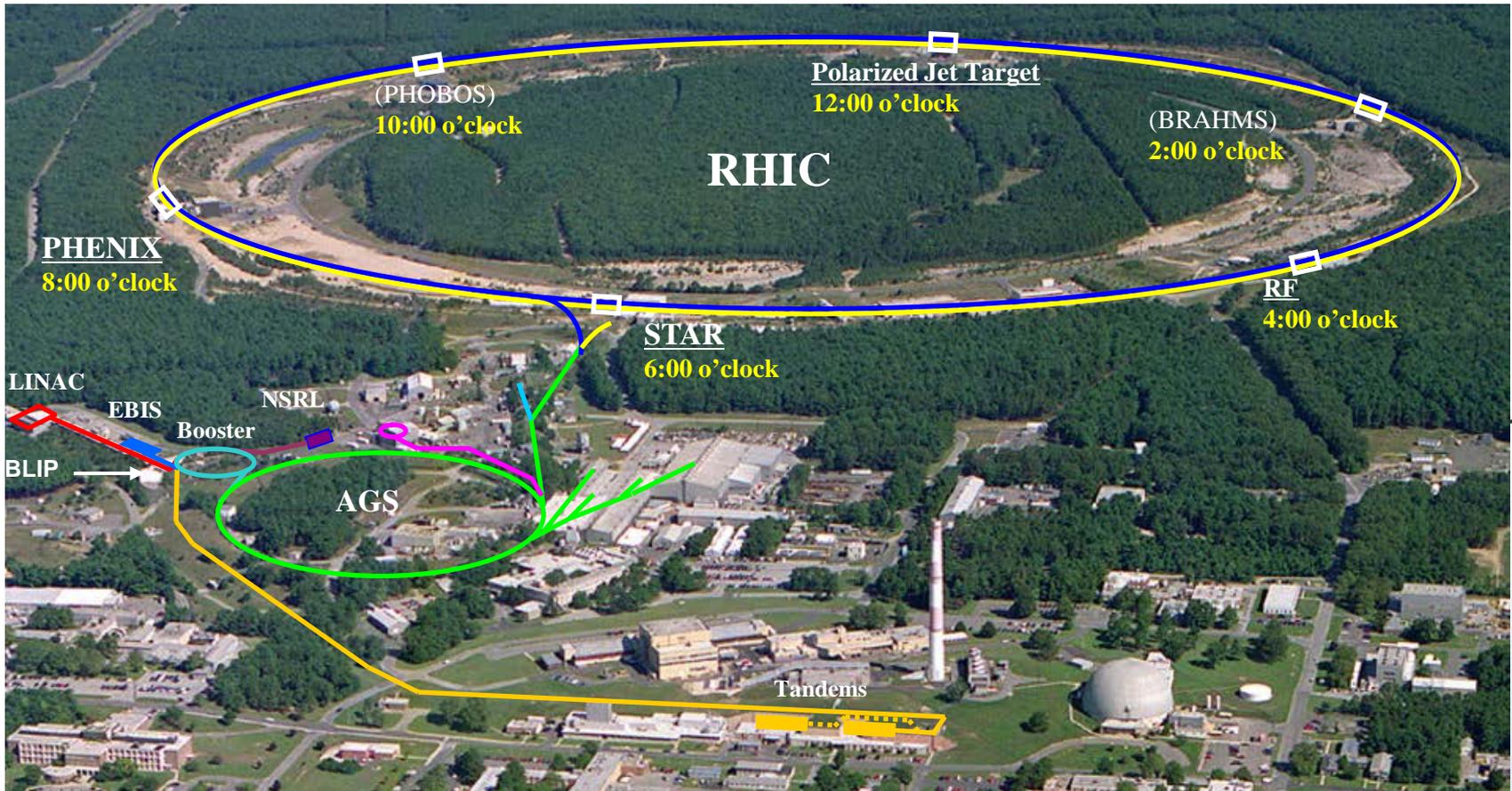
- Premier multidisciplinary, basic S&T Laboratory
  - Advance energy and environment-related research to the benefit of the Nation
  - Advance fundamental research in nuclear and particle physics
- Growing impact through development and commercialization of discoveries

## Strategy

- Position BNL's two largest facilities National Synchrotron Light Source (**NSLS** → **NSLS-II**) and Relativistic Heavy Ion Collider (**RHIC** → **RHIC-II** → **eRHIC**) for continued leadership roles

## Funding

- FY11 Lab operating costs \$652M
  - ~85% of funding from SC
  - Growth strategy for non-SC funding going forward



- User facilities: **RHIC (AGS; EBIS; Booster; Proton Linac; Tandems; NSRL; BLIP); NSLS**, and in the future, **NSLS-II; CFN**
- Other facilities: **ATF; HPC Center; LEAF; Long Island Solar Farm; Northeast Solar Energy Research Center (future); Medical Cyclotron; Source Development Lab; Superconducting Magnet R&D facility**

# Current BNL Themes

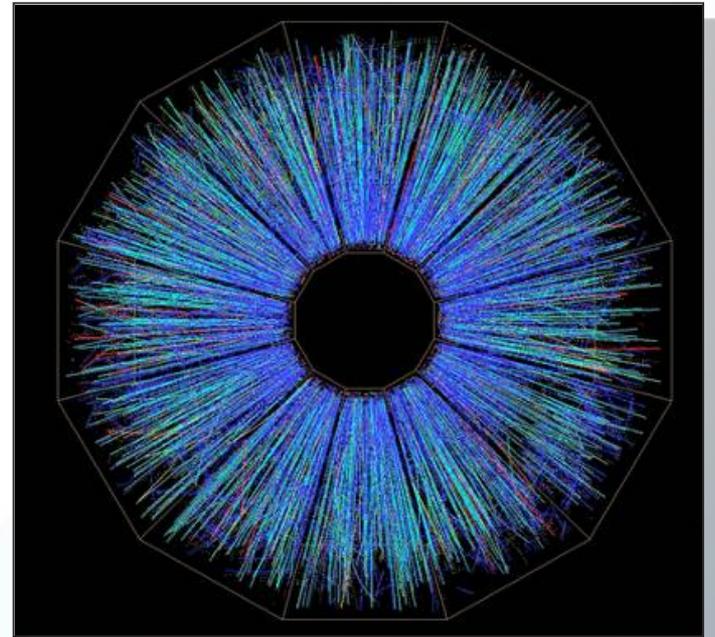
- **Photon Sciences:** construct, commission, and operate (in 2014) NSLS-II
- **QCD Matter:** RHIC-II ops, eRHIC R&D and design, EIC detector R&D
- **Energy S&T:**
  - NSLS, CFN, EFRCs, NSERC, NYS-based partnerships
- **Physics of the Universe:**
  - LHC/ATLAS, Neutrinos (Daya Bay, LBNE), LSST
- **Climate & Bioscience:** Atmospheric science, bio-energy, synthetic biology

# Long-Term BNL Initiatives

- **QCD Matter:** RHIC-II ops → eRHIC: construct, commission, and operate
- **Energy S&T** (including NSLS-II, CFN, materials, chemical and climate/bioscience programs)
  - Increased WFO and industrial impact
- **Physics of the Universe**
  - LHC/ATLAS, Neutrinos (LBNE), LSST
- **Accelerator S&T**
  - Increased WFO and industrial impact

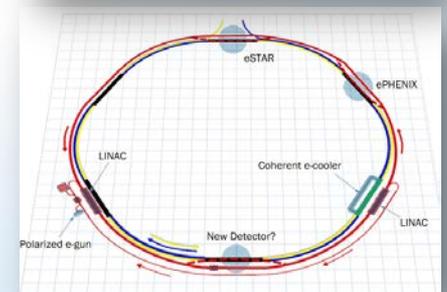
# BNL Strategy – RHIC & eRHIC

- RHIC-II productive running into the early 2020's, including:
  - Additional machine and detector upgrades
  - R&D on EIC-relevant machine upgrades (ERL, CeC, etc.)
  - Community-wide EIC detector R&D, funded through RHIC ops
- eRHIC design, costing review schedule, construction → operations starting in the early 20's
- Commitment to an EIC as the next QCD facility, no matter where it is built



# Our Commitment to RHIC/eRHIC is Unwavering

- NRC report: “Spectacular” performance by the RHIC over past decade; critical future role
- RHIC Run 12: record p-p polarization and luminosity, first U-U and Cu-Au collisions (LRP recommendation for upgrade to RHIC-II achieved)
- Building support in the nuclear physics community for an electron-ion collider
  - Developing new accelerator technologies, including a high-current energy recovery LINAC
  - eRHIC is the most cost effective path to an electron-ion collider



# Impacts: Termination of RHIC Operations

- Major loss to science
- Loss of U.S. leadership in NP
- Loss of broader value to the Nation
- Shattering blow to BNL
  - 750 FTEs, direct + indirect (RHIC ops support 25% of BNL's staff): irrecoverable loss of expertise in NP, Accelerator S&T
  - Permanent loss of program synergies with BNL core capabilities (accelerator S&T, computation, high energy physics, instrumentation, nuclear S&T, condensed matter physics...)
- Future of the Lab threatened

# Search Updates

## Lab Director

- Search committee working with a nationally recognized search firm
  - Committee co-chaired by SBU Provost and ORNL Lab Director
- Committee met June 13
  - Defined and discussed leading candidates
- Committee met with employees to discuss perspectives
- Committee met with 12 prospective candidates in New York City August 9 and 10
  - Narrowed the list down to 6 candidates

## ALD for Nuclear & Particle Physics

- Search committee making good progress
- Committee met in April and May
  - Gathered input from scientific staff
  - Identified slate of candidates
- Committee selected a short list of candidates and I am working with that list
  - Arranging formal interviews

# Back-up