LLNL Report

USNDP
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FY13 Metrics Table

NSR Compilations	0
EXFOR Compilations	0
XUNDL Compilations	0
ENSDF Evaluations submitted	0
ENDF Evaluations	0
Disseminations (in thousands)	6
Articles	1
Reports	0
Invited Talks	0

A-chains to be submitted in FY14:
N/A

A-chains to be submitted in FY15:
N/A

FY13 FTE Table

PhD Permanent	0.26
PhD Temporary	0.12
Tech. & Admin.	0.02
Grad. Student	
Total	0.39

$133k FY13 funding

$48k FY12 carry over

$131k FY13 total costs

$50k rollover into FY14

LLNL contributions to USNDP

- Coordinate LLNL nuclear data efforts with USNDP/CSEWG

  - Attend USNDP/CSEWG meetings

- Lead international effort to develop modern nuclear reaction data format

  - WPEC subgroup 38

- Leverage LLNL programmatic funding to provide evaluations for inclusion in ENDF

Lead international effort to develop modern nuclear data format (GND)

- WPEC Subgroup 38 is underway

- 38 Beyond the ENDF format: A modern nuclear database structure
  - Coordinator: D. McNabb

- First meeting Nov 29-30, 2012 (NEA)
  - Defining required features to fill users' needs
  - 'Requirements document' summarized the discussion

- Second meeting May 21-22, 2013 (NEA)
  - Reviewed requirements document
  - Defined smaller sub-tasks
  - Leaders nominated for each sub-task
  - Drafted tentative work schedule with milestones for each subtask

- Next meeting: Dec 9-11, 2013 (Tokai, Japan)
  - Collecting feedback from each sub-task
  - Updating the work plan

Different Aspects of GND Supported Through NNSA/ASC/IC and DOE/SC/NP

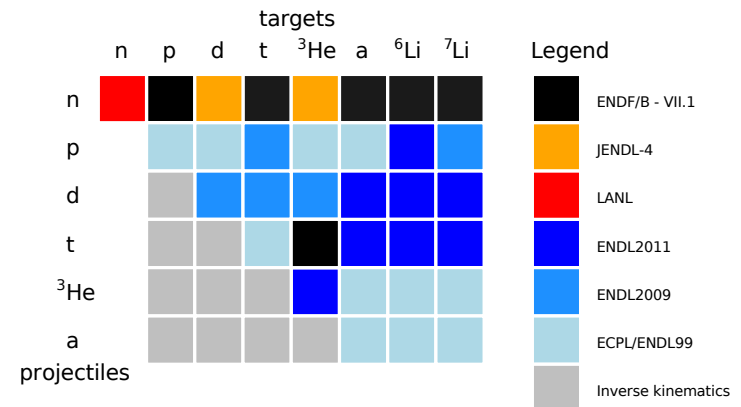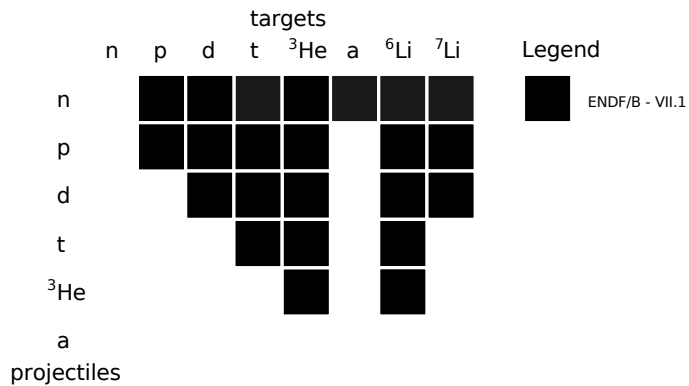| Year/FY	ASC/IC	ARRA	ARRA spending	USNDP	Total
2010	$750k	$150k	Beck/Travel	$0k	$900k
2011	$750k	$150k	Beck/PostDoc	$0k	$900k
2012	$750k	$150k	PostDoc	$0k	$900k
2013	$660k	$150k	PostDoc	$20k/Travel	$830k
2014*	$400k	$0		$80k/Travel	$480k
*Proposed					

- ASC/IC funding core development work to replacing LLNL ENDL format

- DOE/SC/NP through ARRA funding has supported
  - Integration with ENDF-6 format
  - Coordination with CSEWG formats committee
  - Nuclear structure data for use in evaluations

USNDP Continued Support of GND

- ARRA funding of GND integration with ENDF-6 format ended in FY13

- LLNL programs continuing to support core development at reduced level

- USNDP continue to support GND efforts
  - Coordinate GND efforts with CSEWG formats committee
    — Involved attendance at CSEWG
  - Lead effort for international adoption
    — Involves attendance at WPEC subgroup 38

- With proposed increase in funding could work with nuclear structure community to expand new formats to nuclear structure data e.g. ENSDF, RIPL

ENDF Evaluations

- Charge Particle Evaluations by LLNL
  - Detailed overview in CSEWG Evaluations Committee

- ~30 evaluations in use at LLNL that could be considered for next ENDF release

- ~6 months effort required to convert LLNL ENDL formatted evaluations into ENDF evaluations

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Current Funding Scenario

- National Coordination
  - Coordinate Nuclear Data Efforts with USNDP/CSEWG
    - Attend USNDP/CSEWG meetings
    - Participation reduced this year due to CR

- International Coordination
  - Lead effort for international adoption of new nuclear data format
    - Attend WPEC meetings twice a year (3 attendees)

Current funding level only supports first two priorities

- Provide LLNL evaluations for ENDF (proposed $70k/yr for 3 years)
  - ASC/PEM funds evaluation work at LLNL
  - USNDP funds the translation over to ENDF
  - Deliver LLNL charge particle evaluations for inclusion in next ENDF release

- Modern Nuclear Structure Data (proposed $100k/yr)
  - LLNL can collaborate with the ENSDF and RIPL communities
  - Define requirements that an ENSDF replacement must have
  - Create prototype to fill those requirements
  - We have already been working with T. Johnson, A. Sonzogni, and R. Firestone
    - Need to get input from the wider nuclear structure community