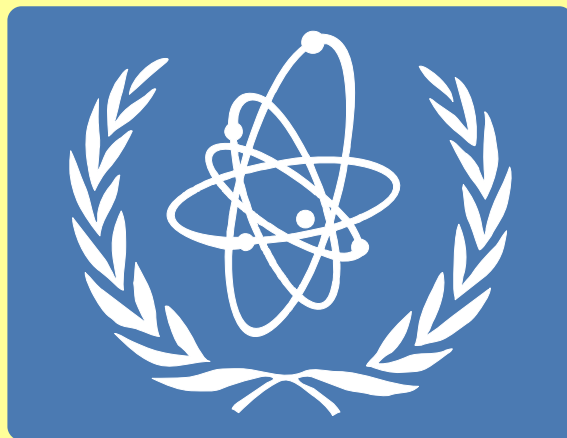# NDS Status report

IAEA Technical Meeting, 25-26 May 2009
Vienna, Austria

Editors: S. Dunaeva, N. Otsuka, V. Zerk

IAEA Nuclear Data Section, Vienna, Austria

The Mission of NDS

NDS staff and changes

- **17 professionals and support staff**
- **Alan Nichols retired**
- **Robin Forrest - new Section Head will come in July 2009**

Data Compilations

TRANS	NDS	ATOMKI	UkrNDC	India	KAERI
CPND	78	20	10	2	2
Neutron	32	-	6	-	
Photonucl	-	-	12	-	
SUM	110	20	28	2	2

monitor on completeness of compilation

- Ion Beam Analysis,

- Reference Input Parameter Library (RIPL),

- PR/C neutron studies.

TRANS files, EXFOR/CINDA dictionaries

- **57 final TRANS files were checked**

- **two regular transmissions of the EXFOR/CINDA dictionaries (TRANS.9098-9099) in EXFOR, DANIEL (backup) and archive format were produced and distributed**

COMPILATION MISTAKES

- Mistakes in contents:

  http://www-nds.iaea.org/nrdc/exfor_err.html ;

- Mistakes in formats:

  http://www-nds.iaea.org/nrdc/exfor_err2.html ;

- Feedback from WPEC SG-30:

  http://www-nds.iaea.org/nrdc/exfor_err3.htm .

- The correction process is being monitored by NDS staff.

- Almost all corrections have been finished for the 3rd list (except 6 subentries from area 1)

CINDA Master file

- The up-to-date CINDA Master File is available via the NDS compilers' Web site.

- An automatic update using the EXFOR database has been carried out twice (November 2008, April 2009).

- A Sybase-dump of the complete CINDA database was sent to NNDC.

- A few new CINDA lines have been prepared manually for new non-EXFOR experimental studies.

- Corrections to CINDA lines have also been carried out according to various feedback from users (http://www-nds.iaea.org/nrdc/cinda_err.html).

Coverage control

- over 80 journal titles were scanned
- over 350 journal issues from 1990 to 2009 were added to the database for CINDA coverage control
- More that 900 files were saved in pdf-format during this year
- all requested copies of the articles for compilation were sent to Data Centres
- EXFOR database statistics are also available from the NDS Web site:
- contributions to EXFOR according to individual centres,
- history (Preliminary, TRANS files, database updates),
- general statistics (contents by Quantities, Targets, Reactions, etc.).

Evaluated data libraries, files and programs

- EXFOR - CINDA Database and Retrieval System, data updated April 2009 (CD-ROM);

- ENDVER/GUI and EXFOR-CINDA package; Integrated Tools for ENDF-Evaluators, reproduced at April 2009 on CD-ROM

Services: ENDF

New evaluated libraries included in the ENDF database:

- **TENDL-2008 TALYS-based Evaluated Nuclear Data Library [page]**
- **FENDL-2.1 Fusion Evaluated Nuclear Data Library, 2004**
- **JEFF3.1.1 Radiactive Decay Data Sub-Library, 2007**

Plotting production cross section coded via MF6/MF5/sub-sections on Web

Services: EXFOR

- Advanced plot: ratios, ratios converted to cross sections
- Dynamic request page combining Standard, Extended and Advanced requests in one page
- Prompt-Help system
- Extensions on Selection-page and EXFOR+
- Search by full Reaction-code and Trans-ID
- New Web output format X4± presenting EXFOR file as an interpreted interactive tree
- New tools for EXFOR compilers: uploading EXFOR file and comparison with existing data in EXFOR database
- Video guide for EXFOR-ENDF

Software

- *CINDA :* A new version of the program to import information from the ENDF database has been discussed, improved and checked with Henriksson (NEA- Data Bank).

- *EXFOR:* New EXFOR Java tools (basic classes) were created. ➔ new pilot programs : production of new output formats (X4±, XML, X4Tab), etc

- *Full EXFOR in C4 format* were regularly produced

- *Flexible ENDF database explorer* allows the user to select the sequence of data observation "on the fly" and provides additional convenient service.
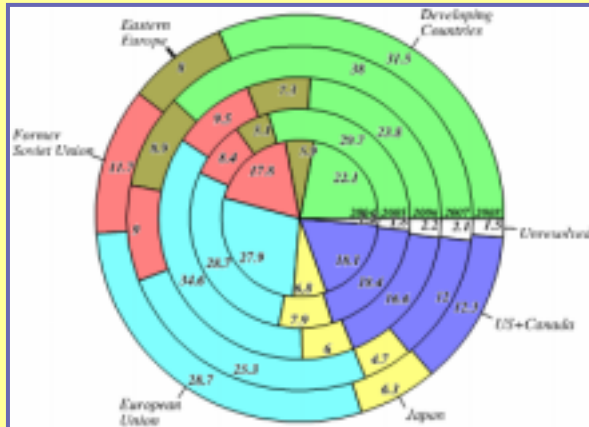
Recent Coordinated Research Projects

- *Reference Database for Ion Beam Analysis:* **on-going.**

- *Updated Decay Data Library for Actinides:* **on-going.**

- *Reference Database for Neutron Activation Analysis:* **on-going.**

- *Heavy Charged-Particle Interaction Data for Radiotherapy:* **on-going.**

- *Minor Actinide Neutron Reaction Data (MANREAD):* **on-going.**

- *Nuclear Data Library for Advanced Systems – Fusion Devices (FENDL-3):* **on-going.**

- *Reference Database for Ion Beam Analysis:* **on-going.**

- *Updated Decay Data Library for Actinides:* **on-going.**

- *Reference Database for Neutron Activation Analysis:* **on-going.**

- *Heavy Charged-Particle Interaction Data for Radiotherapy:* **on-going.**

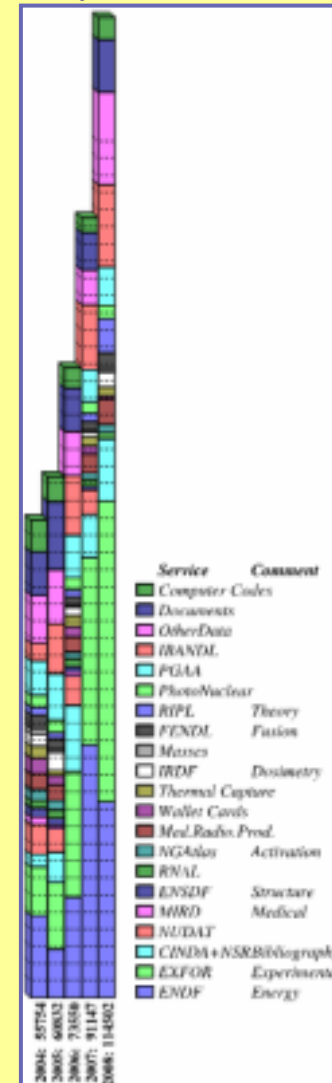- *Minor Actinide Neutron Reaction Data (MANREAD):* **on-going.**

NDS+IPEN+BARC
Nuclear Data Services: Web Statistics

Geographical Distribution (%)

Average per Month
(Number of accesses + retrievals)

Total per Year
(Number of accesses + retrievals)