

# NSDD

Creation of a collaboration between

Joe Schmitt (IAEA)

Sol Pearlstein (BNL)

# NSDD

- Neither of two were structure physicists but were tactful bureaucrats and great administrators!
- Sol was very ambitious, driven, always looking for opportunity to propel his data center
- Opportunity arose in early 70's.

# NSDD

- In the 1960's there were basically four centers devoted to Nuclear Structure Data evaluations/compilations:
  - U of Penn: A=1-20 Fay Ajzenberg-Selove  
Nuclear Physics
  - Utrecht U: A=21-44 Pieter Endt,  
Core Van Der Leune Physics – B
  - ORNL, NDP: A>44 Nuclear Data Sheets (post Kay Way)
  - Table of Isotopes, Mike Lederer at LBL, Ac Press

# NSDD

- There were no computers or not even calculators, people used slide rules
- NDP had acquired a Wang calculator
- Everything was hand-written
- There was no ENSDF or NSR. Those came about in mid 1970's

# NSDD

- In 1970 US, AEC (later ERDA, then DOE), wanted to make data evaluations more timely. Created a committee (chaired by Herman Feshbach, Fay Selove, secretary) under the auspice of AEC, NSF, NAC

Created a NIRA program with 24 young post-docs to help NDP.

# NSDD

- Dan Horen, then Director, NDP, didn't quite like this AEC/NSF/NAC initiative
- AEC manager, George Regosa asked Pearlstein to look into this. A Brookhaven Study was conducted and it suggested internationalization of the effort with help from the IAEA
- First meeting towards creation of a network, similar to n-4-center was in Vienna

# NSDD

- Dan Horen/Sol Pearlstein represented the US. Dan opposed the internationalization effort and walked out. AEC did not like that and was perhaps was the reason for Dan Horen being replaced by Bruce Ewbank as NDP Head.
- I attended the first NSDD meeting at ORNL in 1977. It was a UN-style with simultaneous translations in 4-languages.
- All subsequent meetings were in English.

# NSDD

- It was to meet once a year but soon changed to every other year.
- Alex Lorenz was first Program Manager
- Hans Lemmel, Doug Muir (once), Alan Nichols, Daniel Abriola, and currently Paraskevi Dimitriou (Vivian) programm managers
- Until around Yr 2003, when Alan Nichols became Head, IAEA played a role mainly as administrators of the meeting. Logistic support.
- Initially, meetings rotated between data centers:



# NSDD members

- US: NDP, BNL, INEL, LBL
- Utrecht – Pieter Endt/Core van Der Leune
- Grenoble/France: Jean Blachot
- Karlsruhe/Germany: Heinz Behrens
- UK: Pieter Twin
- USSR: Moscow (Felix Chukreev), Leningrad (Kondurov)
- Belgium: Dennis De Frenne
- Sweden: Peter Ekstrom
- Kuwait: Ameenah Farhan, B. Singh
- China: Beijing, Shanghai

## NSDD Meetings

Place	Date	Report
1. Vienna, Austria	29.04. – 03.05.1974	INDC(NDS)-60
2. Vienna, Austria	03 – 07.05.1976	INDC(NDS)-79
3. Oak Ridge, USA	14 – 18.11.1977	INDC(NDS)-92
4. Vienna, Austria	21 – 25.04.1980	INDC(NDS)-115
5. Zeist, Netherlands	11 – 14.05.1982	INDC(NDS)-133
6. Karlsruhe, Germany	03 – 06.04.1984	INDC(NDS)-157
7. Grenoble, France	02 – 05.06.1986	INDC(NDS)-182
8. Ghent, Belgium	16 – 20.05.1988	INDC(NDS)-206
9. Kuwait, Kuwait	10 – 14.03.1990	INDC(NDS)-250
10. Geel, Belgium	09 – 13.11.1992	INDC(NDS)-296
11. Berkeley, USA	16 – 20.05.1994	INDC(NDS)-307
12. Budapest, Hungary	14 – 18.10.1996	INDC(NDS)-363
13. Vienna, Austria	14 – 17.12.1998	INDC(NDS)-399
14. Vienna, Austria	04 – 07.12.2000	INDC(NDS)-422
15. Vienna, Austria	10 – 14.11.2003	INDC(NDS)-456
16. Hamilton, Canada	06 – 10.06.2005	INDC(NDS)-0476
17. St. Petersburg, Russia	11 – 15.06.2007	INDC(NDS)-0513
18. Vienna, Austria	23 – 27.03.2009	INDC(NDS)-0559
19. Vienna, Austria	04 – 08.04.2011	INDC(NDS)-0595
20. Kuwait City, Kuwait	27 – 31.01.2013	INDC(NDS)-0635
21. Vienna, Austria	20 – 24.04.2015	INDC(NDS)-0687
22. Berkeley, USA	22 – 26.05.2017	INDC(NDS)-0733
23. Vienna, Austria	08 – 12.04.2019	INDC(NDS)-0783







# Phase-1

- US vs Europe Philosophy:  
Endt vs Murray
- Evaluations or Compilations

a or y for year

s or sec for seconds

m or min for minute

J for spin

Level energies or Gamma energies

etc.

DOE was not directly involved in functioning of NSDD

IAEA was passive, provided logistics, support.

# Phase-2

In 1992 DOE Rep (Dick Meyer) took control. Starting at Duke. Shook up the network. Electronic publication is new slogan.

Removal of Sol Pearlstein (Charlie Dunford replaces) and NNDC

New players: Chris Stone, Mike Lederer, LBL

Started with Geel,

Then showdown at Berkeley: (Charlie Dunford, IAEA rep)

First two days dismantling of NDS, ENSDF, Murray role

Intervention from Dave Hendrie, Marty Bloom reinstates Murray and NNDC

## Phase-2 (contd)

All meetings to take place in Europe, preferably Vienna, and mostly in

November/December

Meeting in Budapest – A new low! Loss of civility, Ekstrom quits

- End of 90's Meyer retired
- No DOE manager since attended NSDD in person!



# Phase-3

- 2003 Alan takes over at IAEA
- Pavel/Alan suggest ICTP workshop
- Starts with a pilot at Vienna-  
conducted by Tuli, Browne, Burrows  
Brought in: US (F. Kondev), Australia (T. Kibedi), USSR (Mitroploski), India (Jain),  
Argentina, Romania
- ICTP, very successful, brings in new talent

# Phase-4

- Alan covers most of the period post 2003
- Lot of effort to bring Europe in fold
- Somewhat successful was my talk to European union at Helsinki, Finland

Warmly received









Kelley  
USA

P. Dimitriou  
Scientific Secretary

M. Herman  
USA







# RESEARCH SCHOOL OF PHYSICS



# NSDD

- It has been an interesting journey for me
- Mostly bureaucrats did not interfere and it has worked out well.
- New talent and out-reach were primary goals
- Only once we voted to remove someone from the NSDD network.
- Afternoon technical sessions to some of us were more interesting.

# NSDD

Good Luck and good wishes to all!