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## Some promised international collaboration info

1 message

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**Glen Wurden <wurden@lanl.gov>**

Sun, Dec 11, 2011 at 9:10 PM

Reply-To: wurden@lanl.gov

To: dmeade@pppl.gov

From 1988-late 1989, I spent 18 months as a DOE exchange scientist to ASDEX, at the Max Planck Institute in Garching. With wife and two small children (both put into German schools). I brought American hardware to the German tokamak (fast imaging equipment to study pellets). The collaboration was possible, because I met Klaus Buechl, who had come to LANL from Garching to work for an extended time on the ZT-40M RFP. He was my collaborator then later in Germany. There I met, and became integrated with the entire ASDEX team. Many of those folks are still at ASDEX-U and now also W7-X.

Back in 1994-1996, I took more than 600 lbs of neutron detector equipment over to JT-60U. Specialized scintillating fiber detectors for detecting 14 MeV neutrons in the presence of 100x more DD neutron background. Later we showed how we could remotely control this equipment, while participating in shots, from Los Alamos. This wasn't just video conferencing, but actual control. My primary collaborator was Takeo Nishitani, whom I had met some years before at TFTR. The hardware was fully modeled, built, and calibrated at a tandem Van de Graaf at LANL. It took 6 weeks to first data, upon arrival in Japan.

<http://wsx.lanl.gov/scifi.htm>

[http://www-jt60.naka.jaea.go.jp/english/html/exp\\_rep/remoted.html](http://www-jt60.naka.jaea.go.jp/english/html/exp_rep/remoted.html)

[http://www-jt60.naka.jaea.go.jp/english/html/exp\\_rep/rep38.html](http://www-jt60.naka.jaea.go.jp/english/html/exp_rep/rep38.html)

<http://www-jt60.naka.jaea.go.jp/english/annual/96/html/an96-l4.html>

A little bit later, I took an infrared imaging bolometer over to LHD. My primary collaborators were Shigeru Sudo and Byron Peterson. I also knew Mamiko Sasao, again from TFTR. Having an American (Peterson) who was permanently at LHD, was a great advantage. I spent 3 months one summer, getting things going, with bench testing at the Japanese lab, along with multiple 2-week trips.

The common thread, I now see, is that my collaborations were essentially possible because of good working relationships that I developed when their personnel came over to work in the USA.....without that, it would have been much harder, and perhaps not even possible.

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<http://wsx.lanl.gov>

<http://plasma.lanl.gov>

<http://fusionenergy.lanl.gov>

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**3 attachments**

 **APSDPP2011-W7X-Wurden-poster.ppt**  
8514K

 **IR-bolo-joint-paper.pdf**  
230K

 **SciFi-paper.pdf**  
324K