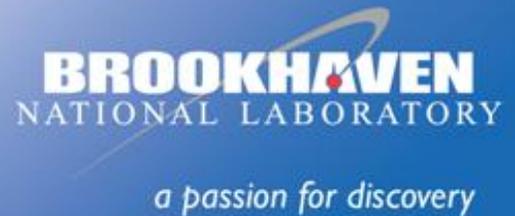


# International Conference on Human Resource Development for Nuclear Power Programmes: Strategies for Education and Training, Networking and Knowledge Management

Susan E. Pepper and Katherine M. Bachner  
Nonproliferation and National Security  
Department

June 2014

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Management

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Brookhaven National Laboratory

June 2014

**Nonproliferation and National Security Department  
Safeguards and Nonproliferation Policy  
Nonproliferation Policy and Implementation**

**Brookhaven National Laboratory**

**U.S. Department of Energy  
National Nuclear Security Administration  
Office of Nonproliferation and International Security  
Office of Nuclear Safeguards and Security  
Next Generation Safeguards Initiative**

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International Conference on Human Resource Development for Nuclear Power Programmes: Strategies for Education and Training, Networking and Knowledge Management

Report to NA-241, Office of Nonproliferation and International Security

Prepared by Susan E. Pepper and Katherine M. Bachner

The IAEA's International Conference on Human Resource Development for Nuclear Power Programmes: Strategies for Education and Training, Networking and Knowledge Management was held at the Vienna International Centre May 12-16, 2014. The Next Generation Safeguards Initiative sponsored Susan Pepper's and Katherine Bachner's participation in the meeting. The conference was organized jointly by Mr. Brian Molloy, Technical Head of Human Resources, IAEA Department of Nuclear Energy, and Mr. Shahid Mallick, Programme and Policy Unit Head, IAEA Department of Nuclear Safety and Security. Ms. Marta Ziakova, from the Czech Republic, was the President of the Conference.

The conference was organized into five topical areas as follows:

1. Human Resources and Capacity Building
2. Preparing the Next Generation of Nuclear Professionals
3. Building and Sustaining Capacity through Education and Training
4. Knowledge Management
5. Knowledge Networks

Each topical area was addressed through papers presented in two, three or four sessions of the plenary complemented by interactive presentations delivered in break out rooms in between plenary sessions. The discussion of each topical area was concluded with a short wrap up by the session chairs and Q&A from the participants. Each speaker was required to submit a short paper and a PowerPoint presentation prior to the conference. The papers were distributed to the participants on a USB stick at registration. On Friday, May 16, a conference panel summarized the themes from each of the topical areas and the participants were invited to add their contributions. A closing session included the President's summary and closing remarks by the Deputy Directors General of Nuclear Energy and Nuclear Safety and Security, Alexander Bychkov and Denis Flory, respectively.

On Tuesday, May 13, Ms. Pepper made an interactive presentation entitled, "The Value of the Junior Professional Officer (JPO) Program to the IAEA and its Member States." See attachment 1 for the paper and attachment 2 for the PowerPoint presentation. A total of seven people attended the presentation during two deliveries. The room provided for the presentation was quite small and had five chairs. Mr. Molloy commented that he was surprised the idea for the paper had not

been considered by the IAEA as a means to promote JPO assignments and to provide the IAEA's experience.

On Thursday, May 15, Ms. Bachner made an interactive presentation entitled, "Promoting Intercultural Competencies." See attachment 3 for the paper and attachment 4 for the PowerPoint presentation. This presentation was attended by a supportive and enthusiastic group of about ten people, including a JPO and a consulting anthropologist from the Safeguards Training Section, who endorsed the concept of training for cultural awareness and the specific format of Ms. Bachner's proposed approach. During the conference closeout session on Friday, May 16, one of the attendees commented that the importance of cultural awareness training should be a recommendation of the conference. Furthermore, in separate discussions on International Nuclear Safeguards and Engagement Program issues with the Head of the Training Section, the topic of Ms. Bachner's presentation arose and was of great interest that audience.

The results of the workshop can be summarized with the following themes:

1. Knowledge islands – Because knowledge is an asset, some people and organizations hoard it as an investment for their future. This can include proprietary as well as experiential knowledge. It is important to incentivize sharing of information so that all can benefit from the existing nuclear knowledge without the current holders being disadvantaged.
2. University-Industry partnerships – Universities and industry should partner to deliver comprehensive training and education to nuclear professionals. Students benefit from educational programs that include work experience. One presenter stated that job related training can only be completely effective through industry or on-the-job training. Conversely, experienced nuclear professionals can benefit from compressed programs offered through universities.
3. Hard versus soft skills, technicians versus professionals – The nuclear industry needs people from a broad range of backgrounds. Each nuclear power plant requires approximately 5000 employees from construction through operation. They need scientists and engineers as well as trainers, managers, human resources professionals, accountants, custodians, and administrative staff. Educational requirements include vocation schools as well as colleges and universities and range from associates degrees to doctorates. There is a need to recruit individuals from all of the abovementioned fields and to increase awareness in other fields of the opportunities in the nuclear industry.
4. Engagement of the non-nuclear community – The participants recognized the value of outreach to other professional communities. First, there is significant overlap in requirements between the nuclear industry and other fields, and the nuclear industry can use the skills found in individuals in other industries. Second, individuals from other industries can be retrained for jobs in the nuclear industry. Finally, it is important to educate the entire

- global community about the benefits of nuclear energy so that all understand its importance to national and international energy security.
5. Specialists versus generalists – The nuclear industry needs individuals who are specialized in specific areas and individuals who have a broad spectrum of knowledge. It is impossible for everyone to know everything, and some employees need depth in a particular subject.
  6. Nuclear networks – National, regional and international nuclear networks are important for sharing information and best practices, mentoring newcomer countries, and ensuring quality. Since the 2010 conference, the number of nuclear networks has increased to include networks in Africa and South America. There has been some networking between networks and the participants encouraged this practice.
  7. Developing knowledge chains to sustain knowledge – In order to make investments in human resource development sustainable, knowledge chains must be developed. These chains will provide roadmaps for the continuity of knowledge necessary for successful programs. Key to knowledge chains is the avoidance and prevention of the growth of knowledge islands (see 1).
  8. Disarmament – Although there was not a significant nonproliferation or international safeguards presence at the conference, one participant noted that the human resources required to sustain nuclear weapons could, in the absence of nuclear weapons, be applied to the peaceful uses of nuclear energy.
  9. Increasing the role of women – While increasing the role of women in the nuclear realm was not a key topical area, many presentations included statistics on the representation of women in specific companies and countries. One company mentioned strategies for increasing the representation of women. Several participants made comments during the Q&A sessions about the need to promote and support women in the nuclear industry. One participant implied that the subject of HRD was becoming sufficiently broad that a conference just for women should be considered. It is interesting to note that women made up 20-25% of the participants at the conference; the President of the Conference was a woman, and women were represented among the speakers and session chairs.
  10. Support to newcomer nations – It is important for the IAEA and experienced member states to support member states that are exploring new peaceful nuclear programs. It is difficult for them to acquire the necessary infrastructure and capabilities required to run a nuclear program. For safety and security reasons, it is important to ensure that newcomers are implementing best practices and working to accepted standards. If they cannot develop their programs indigenously, they may recruit experts from other countries and lead to brain drain.

There was consensus that another conference on the subject of human resources development should be held in approximately four years. Mr. Molloy noted that there is an IAEA Technical Working Group on Human Resources Development and they are establishing one to address Knowledge Management. Other department-

specific meetings are advertised on the websites for the individual IAEA departments.

## **Attachment 1: The Value of the Junior Professional Officer Program to the IAEA and its Member States**

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Melissa Scholz and Gisele Irola, National Nuclear Security Administration,  
Washington, DC USA  
Steven Amundson, Argonne National Laboratory, Argonne, Illinois USA

### **Abstract**

The IAEA's Junior Professional Officer (JPO) program provides the opportunity for early career professionals to obtain valuable work experience while helping the IAEA perform basic, yet essential work that would otherwise be performed by an experienced staff member. JPO assignments span the spectrum of IAEA tasks, including open source information collection and analysis, equipment evaluation, testing, and installation, statistical analysis of data, software and web development, entomology, performance strategy, project management, communications, and stable isotope analysis. JPOs are college graduates with degrees in science, engineering, or other disciplines relevant to the work of the IAEA, generally 32 years old or younger, and have approximately two years' professional experience. They work with the IAEA in entry-level positions for one or two years under extrabudgetary funding provided by an IAEA Member State. Currently, ten Member States have JPO agreements with the IAEA. The United States initiated its JPO program in 2004 and has found that the program has advantages for both the IAEA and the United States.

The IAEA is an excellent environment for introducing young scientists, engineers and other professionals to the practical application of their education, to international civil service, to the challenges facing the global nuclear industry, and to the industry's practitioners. This paper will summarize the advantages of the JPO program to the IAEA and to the Member State.

### **Introduction**

Junior Professional Officers (JPOs) employed by the International Atomic Energy Agency (IAEA) are early career professionals, 32 years old or younger with approximately two years' work experience, who are sponsored by a Member State to work under the guidance of experienced IAEA staff members for one or two years. They are assigned to a specific team and have a scope of work that is agreed upon by the IAEA and the sponsor. JPO assignments have defined job descriptions that outline the role and responsibilities of the JPO. The desired positions are prioritized by IAEA Departmental management so that the sponsor can see how each position compares to others in terms of importance to the whole Department. The JPO is compensated through an extrabudgetary arrangement and receives all the benefits and privileges of a regular IAEA staff member.

Member States of the IAEA are able to establish Memoranda of Understanding with the IAEA for the placement of JPOs. The United States and the IAEA signed a

Memorandum of Understanding in 2004 for the provision of Junior Professional Officers and Associate Experts. Since that time, the United States has sponsored JPOs in five Departments and one Office of the IAEA. Of a total of 45 JPOs placed since 2004, one was in Technical Cooperation, one was in Nuclear Energy, four were in Management, nine were in Nuclear Sciences and Applications, 29 were in Safeguards, and one was in the Offices Reporting to the Director General.

The United States, through the Next Generation Safeguards Initiative, the U.S. Support Program to IAEA Safeguards, High Priority Safeguards Projects, the U.S. Voluntary Contribution to Non-Safeguards Cost-Free Experts, and other extrabudgetary programs, contributes funding to the IAEA to cover the costs of JPO positions. Based on the United States' experience, the annual cost of a JPO is USD150-200,000; the actual cost depends on the grade and family situation of the JPO. Despite the relatively high cost of sponsoring a JPO position, the United States has found the program to be a good investment in the development of human resources for the nuclear industry, including commercial, government and research sectors, and recognizes that the JPO program is beneficial to the IAEA as well. What follows is a discussion of the benefits of sponsoring IAEA JPO positions to both the IAEA and to the Member State sponsor based on the United States' experience.

### **Benefits to the IAEA**

The benefits of JPO positions to the IAEA are similar yet distinct from the benefits to the sponsor.

Augmented human resources: The primary and most visible benefit of JPO assignments to the IAEA is that JPOs are cost-free to the IAEA and supplement the human resources that are supported by the regular budget. The JPOs complete necessary work that would otherwise be performed by regular staff members. As a result, the Secretariat as a whole is more productive.

Efficiency: JPOs perform basic, yet essential work for the IAEA. In the early 2000s, the United States observed that Cost Free Experts (CFEs), senior extrabudgetary staff members with expertise relevant to the IAEA's mission, were not effectively supported in their work, and as a result, were required to perform tasks usually completed by technicians, post-doctoral fellows, or early career professionals. JPOs provide necessary support to CFEs and regular staff by completing basic work that nevertheless must be completed. By working alongside experienced staff members, the JPOs free those staff members to perform more complex work. In this way, human resources are used more efficiently and effectively.

Increased input to IAEA's recruitment process: Individuals who work at the IAEA in JPO positions and later apply for regular staff positions can be evaluated based on their previous performance. This gives the IAEA more information upon which to base their selection and provides a better understanding of an individual's capabilities.

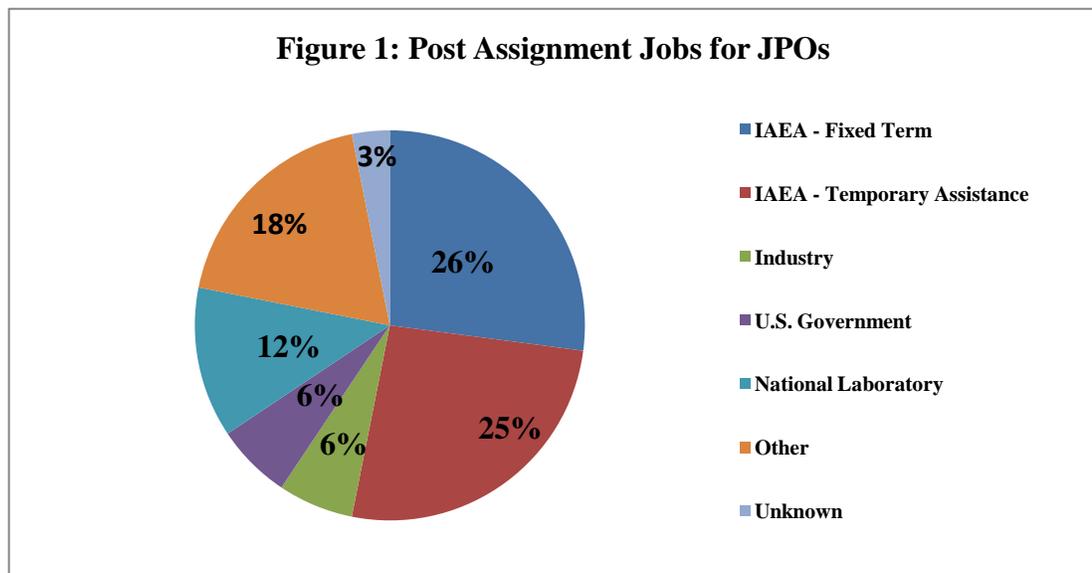
Increased likelihood of successful adaptation: Former JPOs have experience living abroad in Vienna, Austria, and are familiar with the IAEA work environment. Applicants who have previously worked at the IAEA are more likely to understand the difficulties associated with moving to another country, will be prepared for those difficulties, and will be familiar with cultural and other aspects of living in Vienna and working at the IAEA. Also, by having previous IAEA work experience, successful candidates will require less time to become fully productive in their new positions.

Networking: Former JPOs who stay in the industry are excellent points-of-contact for Agency staff when operating in or interacting with Member States. They help the IAEA to develop networks in Member States that are important for program implementation.

### **Benefits to Both the Member State and the IAEA**

Many of the benefits of JPO assignments apply to both the sponsoring Member State and to the IAEA.

Human capital development: The primary benefit of JPO positions to the Member State is that the positions provide excellent hands-on work experience in the implementation of science and engineering principles for early career, college-educated professionals. All JPOs address real IAEA workplace needs while receiving valuable on-the-job training. Some assignments allow the JPO to get field experience. The experience gained through JPO assignments is unparalleled for individuals who will continue to work with the IAEA, directly or indirectly, and for those who will work in the nuclear industry, including the government, commercial and research sectors. The organization, and thereby the Member State, that hires a JPO at the conclusion of his or her assignment benefits from the experience gained during the assignment, and the experience will benefit the JPO and his or her employers throughout the JPO's career. Figure 1 shows the placement of U.S. JPOs following the completion of their IAEA assignments.



Both Member States and the IAEA need well-qualified candidates to fill IAEA staff positions. Member States want to have representation within the IAEA, but the requirements for IAEA regular staff positions are specific and rigorous, and competition for vacancies can be strong. Having the right skills and experience prior to applying for an IAEA position is essential. IAEA assignments are a valuable element of the career ladder for nuclear professionals, and they are an effective way for individuals to gain the necessary skills. Immersion in the IAEA workplace leads the individual to a detailed understanding of the IAEA's procedures and processes and the principles that established them. Working directly with the IAEA can give the individual the specific knowledge and skills that are required for selection for regular staff positions. Having prior experience at the IAEA has proven invaluable as 32% of U.S.-funded JPOs were later hired against vacancy notices.

Insight into IAEA programs: All IAEA assignments help to provide insight into the IAEA's programs, work environment, and technical needs. Member States that interact with the IAEA, particularly in international safeguards activities, must understand the IAEA's mission, objectives, and criteria in order to assist the IAEA and to meet their obligations. Member States benefit when individuals in JPO assignments learn the techniques and procedures used by the IAEA. After their repatriation, JPOs can transfer their knowledge of the IAEA's procedures and processes to their employers and co-workers to facilitate the interaction between the Member State and the IAEA.

### **Summary**

The JPO program is a net positive for the IAEA, the Member State sponsor, and the JPO. JPOs increase the IAEA's staffing resources and increase the efficiency and effectiveness of the IAEA's workforce. Experience and training obtained through a JPO experience increases the pool of well-qualified candidates for professional positions in the IAEA. The United States has found its JPO program to be a good investment for the development of human capital for the IAEA and the U.S. nuclear industry, including the government, commercial and research sectors. JPO positions provide excellent work experience for early career professionals and insight into the IAEA's work environment and technical needs and provide knowledge and develop the skills necessary for individuals to successfully compete for IAEA staff positions. Both the IAEA and Member States that sponsor JPOs benefit from the ability of the JPO to transfer knowledge of IAEA programs, policies, and requirements back to his or her Member State, such that the Member State can better support the IAEA's mission. Additionally, JPOs can act as IAEA points-of-contact upon repatriation, thus facilitating communication and cooperation between the IAEA and a Member State.

### **References**

J. Cruz, J. Patterson, and S. Pepper, "Evaluation of the United States Support Program's Internship and Junior Professional Officer Programs," poster presented at the 53<sup>rd</sup> Annual Meeting of the Institute of Nuclear Materials Management, Orlando, FL, July 2012.

# The Value of the Junior Professional Officer Program to the IAEA and its Member States

May 13, 2014

Presented by Susan E. Pepper  
Nonproliferation and National Security Department  
Deputy Department Chair

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## IAEA Junior Professional Officers

- Sponsored by an IAEA member state
- 32 years old or younger
- 2 years' work experience
- Work under the guidance of an experienced IAEA staff member
- Scope of work is agreed by the IAEA and the sponsor
- Compensated and treated as a regular staff member, but cost paid by member state



## Assignments

- Open source information collection and analysis
- Equipment evaluation, testing, and installation
- Statistical analysis of data
- Software and web development
- Entomology
- Performance strategy
- Project management
- Communications
- Stable isotope analysis

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## Benefits

- Augmented human resources
  - JPOs are a form of extrabudgetary support and supplement the human resources that are supported by the regular budget
- Efficiency
  - JPOs perform basic, yet essential work, and free experienced staff can concentrate on more complex activities
- IAEA can hire people with known capabilities
  - Former JPOs who apply for regular staff positions can be evaluated based on past performance

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## Benefits

- Improved communication
  - Former JPOs who return to their home member states can improve communication by acting as points-of-contact between member states and the IAEA due to their knowledge of the IAEA
- Experience for future positions at the IAEA
  - JPO positions provide job experience that qualifies them for regular staff positions



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## Benefits

- Human resources development
  - Positions provide hands-on work experience
  - JPOs address real workplace needs
  - Future employers, including companies, governments, nuclear facilities, and the IAEA, benefit from the experienced people they can hire
  - JPOs add to the pool of well-qualified candidates for IAEA positions



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## Benefits

- Insight into IAEA

- Insight to programs, work environment, and technical needs
- JPOs learn the procedures and techniques used by the IAEA
- JPOs transfer knowledge from the IAEA to employers and co-workers



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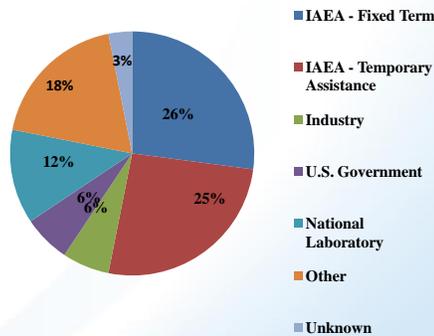
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## U.S. Junior Professional Officers

Assignments to IAEA Departments

| IAEA Department                   | # JPOs    |
|-----------------------------------|-----------|
| Technical Cooperation             | 1         |
| Nuclear Energy                    | 1         |
| Management                        | 4         |
| Nuclear Sciences and Applications | 9         |
| Safeguards                        | 29        |
| Offices Reporting to the DG       | 1         |
| <b>Total</b>                      | <b>45</b> |

Post Assignment Jobs



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## Thank you.

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### Attachment 3: **Promoting Intercultural Competencies**

Katherine Bachner, Brookhaven National Laboratory  
IAEA HRD Conference, May 2014

Intercultural preparedness training is a staple of many workplaces that require international competence, including government, business, and non-profits. Even highly experienced diplomats are often advised to attend training sessions on this topic. Intercultural preparedness training promises to be especially relevant and useful for professionals working in the field of nuclear nonproliferation, and particularly so in the application of international nuclear safeguards.

Intercultural preparedness consists, among other things, of being aware that various cultures can have widely varying perspectives. These perspectives influence the way that a person develops relationships, responds to situations, and operates in a professional setting. Developing intercultural competency in a systematized fashion can improve the success of international and cross-cultural missions, and should be a staple of training provided to employees who work interculturally.

The implementation of international nuclear safeguards involves the cooperation of individuals from different nations, backgrounds and areas of expertise. Broadly, managing projects and teams in intercultural settings poses unique challenges. Maximizing the success (both the effectiveness and the efficiency) of a project with such diverse teams is dependent upon good communication, leadership, and team skills, and achieving these is greatly facilitated by the ability to work across cultures. This is true even in highly technical organizations. In the field of nuclear nonproliferation, understanding intercultural factors in behavior can have a direct impact on the effectiveness of outcomes directly related to national and international safeguards and security.

Intercultural preparation is valuable and necessary for staff traveling abroad or hosting foreign counterparts at home to perform international nuclear safeguards and nuclear security-related work. There is currently a dearth of widespread, systematized training available in many large international organizations, as many training budgets focus on the technical missions at hand. While many practitioners of nuclear safeguards implementation, material protection, control and accounting (MPC&A), and other nonproliferation concerns have extensive experience traveling and working abroad, and may speak multiple foreign languages, few have had systematized intercultural training - training that could greatly enrich both their professional success on foreign missions, and their personal understanding of the attitudes of the foreign workforces they find themselves interacting with. A significant body of research exists attesting to the importance of intercultural preparedness, stemming from many fields.

The International Atomic Energy Agency (IAEA) could usefully develop a time-efficient, targeted training program to provide its employees and contractors with the tools they need to improve their understanding of the perspectives by which their various national counterparts may be informed. This paper outlines the justification for, and some of the basic tenets of, a proposal for the development of such a program. The proposal will outline the basics of intercultural scholarship that provide the bedrock of an intercultural approach, and will then describe a two-step system in which employees will be provided with targeted trainings: the first will be a 'general concepts' of intercultural communication seminar. Then, based on the regions in which the employees may be working, the intercultural training system will provide culture-specific training on an as-needed basis by country.

## Overview of Proposed Training Program

Any effective training program on intercultural issues must by necessity begin with a discussion of what ‘culture’ really is. Culture is the acquired knowledge people use to interpret experience and generate behavior.<sup>1</sup> Anthropologist Edward Hall defined culture as communication in his seminal 1958 book, *The Silent Language*. Hall contended that humans communicate without using words, and that this ‘silent language’ is learned unconsciously as we grow up in our specific cultural settings.<sup>2</sup> Many sources of misunderstanding and conflict between people can often be attributed to varying meanings, based on culture, that are assigned to nonverbal messages.<sup>3</sup>

Some of the important facets of culture that are affected by this silent language, and the differences that invariably attend perspectives toward relationships, include attitudes toward time, space, hierarchy, language, and a belief in the ‘correctness’ of one’s own cultural outlook. One of the fundamental lessons of this short paper, and of anthropologists and interculturalists writ large, is that while it may be difficult to envision how any cultural attitude or perspective other than one’s own can be legitimate, developing such empathy and understanding is key to successfully accomplishing tasks and developing relationships in a cross-cultural or intercultural setting. In the field of nuclear safeguards, where the outcomes of inspections and international collaboration and communication are of immense import for international security, this is especially cogent. Edward Hall stated that for many Westerners: “Western man sees his system of logic as synonymous with the truth. For him it is the only road to reality.”<sup>4</sup> While this may be qualified as a generalization, the tendency to equate a ‘logical’ western-mentality approach to things with the ‘correct’ approach to things is not only dangerous, but a recipe for potential misunderstandings professionally and personally. While the IAEA is an international, not a Western, organization, it is safe to say that many of its cultures are western and innately view themselves as doing things the ‘correct’ way, and therefore providing such baseline training becomes all the more urgent for effective communication in such a multi-cultural setting.

Many specialists in intercultural relations use the iceberg analogy for understanding culture. This analogy effectively illustrates how the behavior of an individual, on the surface, could lead to certain conclusions about her/his underlying beliefs. Moreover, those underlying beliefs are precisely that: they lie beneath the surface, and cannot be understood merely by observing the behavior alone.

### Overarching goals of proposed training

The basic goals for any intercultural training, but particularly for one geared toward the needs of an international organization, are:

- Achieve a common understanding of “culture”
- Introduce some key concepts from anthropology and intercultural communication
- Recognize that our cultural differences influence how we communicate with each other

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<sup>1</sup> Spradley, James. “Culture and Ethnography”, *Participant Observation*. Holt, Rhinehart, and Winston, Inc., 1980.

<sup>2</sup> Hall, Edward T. *The Silent Language*.

<sup>3</sup> Weaver, Gary. *Intercultural Relations: Communication, Identity, and Conflict*. Pearson, 2013: page 1.

<sup>4</sup> Hall, Edward T. *Beyond Culture*. Page 9

- Identify how we can more effectively communicate across cultures despite the differences that seem to divide us<sup>5</sup>
- Provide staff culture-specific training in anticipation of engaging abroad or with Member State counterparts hosted by? working at ?the IAEA

There is a danger in providing staff with ‘cookbooks’ on culture, for example, providing a simple list of dos and don'ts for a certain country without appropriate general cultural preparedness training. This may be insufficient preparation. The danger, specifically, is that all intercultural training, including the cookbook approach, is based on generalizations (as opposed to stereotypes). If the staff member finds him or herself in a situation in which the generalizations do not apply, the cookbook will not be useful. However, step one of this proposal is to provide the staff member with overarching intercultural empathy preparedness that will serve that person well, including? in the case of an unexpected response or encounter - which, as anyone who has traveled knows, is extremely common.

### **General Cultural Preparedness Training - Part 1**

The approach, therefore, should focus on two very different levels. The first level of training should address overarching cultural empathy issues, which often include, but are not limited to, the following topics.

**Types of culture:** this topic can include issues of ethnicity and nationality, gender, geographical location, and organizational setting, among others.

**Individualism versus collectivism:** this is the degree to which people rely upon and have allegiance to the self. In a highly individualistic culture, an employee is more likely to be emotionally independent from a company or job. In an individualistic culture, freedom and challenge are considered of high import, and it is socially acceptable for people to pursue their own individual initiatives. In a collectivist culture, the primary identification is with the group, as opposed to in the individualist culture. Collectivist cultures value group harmony and interdependence, and the emphasis of social interaction and social life is on mutual obligations and group achievements, as opposed to individual rights and achievements.

**Uncertainty avoidance:** This factor also varies by culture. Higher willingness to take risk in many cases corresponds to individualist cultures. Understanding the cultural continuum for uncertainty avoidance will assist engagements and missions by making staff more empathetic and less surprised by differing attitudes toward risk and uncertainty that they may encounter.

**Long-term orientation:** This is the degree to which people focus on future rewards and delayed gratification. While all of these factors are generalizations, cultures with long-term orientation favor long-range planning, while cultures with low-long term orientation are more inclined to search for ways to get quick results.

There is a large set of factors that need to be understood, at least in principle, to assist staff in cultural preparedness. Some others that are highly important are notions of masculinity, the value placed on relationships, cultural attitudes towards time (monochronic versus polychronic), power distance, focus on egalitarianism versus hierarchical systems, cultural perspectives on work ethic, proxemics (spatial negotiation and norms), and varying methods of communication, among others. All of these topics, and others, should be at least touched upon in the first part of the training.

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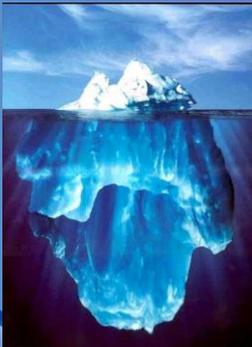
<sup>5</sup> Bachner, David. “Intercultural Communication”. YFU Academy Participant Support Training. Cuernavaca, Mexico. March 27-28, 2009.

## **Culture-specific Training - Part 2**

The second portion of the training focuses on preparing staff for specific missions or deployments. Presenters and facilitators with expertise and experience in key cultural issues of a specific country or region would provide culture-specific training. In addition to providing guidelines and presentations, the trainer will lead staff in simulations, critical incident analyses, and other frequently utilized tools in the field of intercultural training that allow staff to work with their partners in a prepared, culturally-savvy way. For the purposes of this paper, let us examine some 'cookbook' components about the United States of America. These generalizations certainly do not encompass the vast range of backgrounds, specific cultures, geographical locations, or personal opinions of all Americans, but they can be useful both for non-Americans doing business with Americans, and for Americans to better understand their own general tendencies.

Some of the items on a preparation list for non-Americans traveling to the USA or working with Americans would include the following. American culture is extremely individualistic and low-context. There is a strong belief in attaining one's own destiny, and nothing is left to fate. American society is energetic and goal-oriented, with a focus on short-term results. Change is seen as positive and good. Americans favor progress, improvement, and growth. Americans are very focused on time, and consider time a valuable resource that should not be wasted. Meeting times are of great import, and lateness is looked down upon and avoided. One of the results of this is a society that focuses on efficiency to the deficit of interpersonal relationships. American culture is a 'to do' culture, as opposed to a 'to be' culture, meaning that American culture is often very preoccupied with productivity, as opposed to quality of life. The focus on efficiency, seizing one's own destiny, and being active contribute to this. Americans are highly competitive and often value competition over cooperation. Americans are highly informal. Formality is considered un-American, and can indicate arrogance. Americans need a large amount of personal space, and are extremely careful about issues of physical hygiene.

This is merely a brief overview of what one country-specific preparation might cover in preparing staff to work with Americans. In summary, intercultural preparedness is a large undertaking that can be pared down to a reasonable amount of time and effort for staff to improve their relationships with counterparts from other cultures than their own.



**Promoting Intercultural Competencies**

*Katherine M. Bachner  
IAEA HRD Conference  
May 2014*

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U.S. DEPARTMENT OF ENERGY



## What is culture?

- Culture is the acquired knowledge people use to interpret experience and generate behavior
- It is the way of life a people pass down from one generation to the next through learning
- It is the rules for living and functioning in society that come from growing up in a specific society, and it is a set of acquired skills, habits and society-specific training that gives a group of people its identity

## What is intercultural competency?

- Cultures can have widely varying perspectives
- These perspectives influence the way that a person develops relationships, responds to situations, and operates in a professional setting
- Intercultural competency is the ability to comprehend and navigate the ways that culture can influence behavior, relationships, and the results of collaboration and interaction

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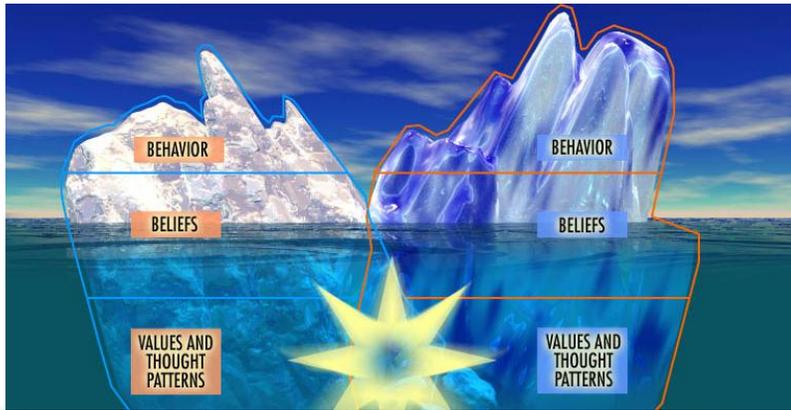
## The iceberg analogy of culture



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## The iceberg analogy of culture 2- culture clash



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## Why is intercultural competency important in our field? What challenges do we face?

### WHY IS THIS IMPORTANT?

- Nuclear power development and nuclear safeguards require significant international collaboration
- Many collaborators come from extremely diverse backgrounds
- Gaining the skills to anticipate potential conflicts based on cultural misunderstanding improves efficiency and effectiveness in many scientific endeavors, and the overall outcomes of joint political and technical endeavors

### WHAT ARE THE CHALLENGES?

- Technical specialists are not always convinced of the relevance of intercultural issues to the nuclear field
- Could be considered costly and time-consuming
- At face value, can be seen as falling outside the wheelhouse of engineering, law, safeguards

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## What does becoming interculturally competent entail?

- Intercultural preparedness is not merely travelling, learning a foreign language, or being exposed to other cultures
- Developing competency requires thinking about the challenges posed to our work by a multi-cultural workforce in a way that prepares employees and staff for potential incidents or misunderstandings
- It is impossible to avoid all intercultural misunderstandings, but learning to anticipate them and deal with them is key to developing any training program on culture

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## Overarching goals and benefits of training on intercultural competency

- Come to a common understanding of “culture”
- Introduce some key concepts from anthropology and intercultural communication
- Recognize that our cultural differences influence how we communicate with each other
- Identify how we can more effectively communicate across cultures despite the differences that seem to divide us
- Provide staff culture-specific training in anticipation of engaging abroad or with foreign counterparts

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## Training program development 1 – a broader understanding of culture

- Address overarching intercultural empathy issues
- Learn about cultural paradigms:
- (examples, there are many more)
  - Individualism versus collectivism
  - Uncertainty avoidance
  - Egalitarianism versus hierarchy
  - Attitudes towards time
  - Notions of masculinity
  - Type of culture (ethnic? Organizational? Etc)
  - Attitudes toward space (proxemics)  
...and many more...

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## Training program development 2 – culture-specific

- Examine 'cookbook' components of culture for a specific region
- Learn about useful generalizations regarding a specific culture (NOT stereotypes) in order to be prepared for potential interactions
- Example for discussion: Cookbook elements of preparedness for interacting with Americans

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Thank you for your  
attention.

Any  
questions?

Key experts cited:

- Bennett, Milton
- Hall, Edward T, and Mildred Reed Hall
- Spradley, James
- Weaver, Gary

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