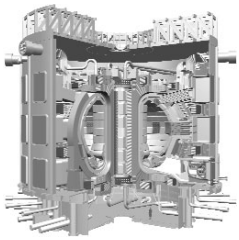

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WORDS OF GRATITUDE TO DR. MICHEL HUGUET

by Dr. Masaji Yoshikawa, former ITER Council Co-Chair

It is impossible for the Japanese fusion community, in particular for those associated with the ITER Project, to hear about the retirement of Dr. Michel Huguet without a great amount of gratitude, recollections, warm feelings, and the inevitable sadness.

He was a first-generation ITER EDA person. Three months after the signing of the ITER EDA Agreement in July 1992, he arrived at the Naka Joint Work Site as Deputy Director of the ITER Central Team and Head of the site and he stayed for more than ten years.

The Naka site was for design and technical co-ordination in the areas of magnets, plasma control and heating, plant systems, buildings, etc. Dr. Huguet was considered a highly qualified person to fill the position, since he had been successful as Deputy Director in similar areas in the JET Joint Undertaking. During the ITER EDA he co-ordinated the R&D activities in areas for which the Naka Joint Work Site was responsible. These R&D results permitted the completion of the ITER design in the above areas under his supervision.

Before the ITER EDA started, concern was expressed about how to progress with such a large international project, having a team consisting of members of many nationalities. This is why participation in ITER activities, in particular on the leadership level, of people who had a broad background in large international projects and a calm nature, a patient character, a communicative mind, and a warm heart was welcome. In this respect, we indeed very much appreciate the great contribution made by Dr. Huguet to establishing very good human relationships through the entire period of his years in Naka.

On this occasion, speaking for the township of Naka and the JAERI Naka Research Establishment, I would like to tell Dr. Huguet's wife Madeleine that we all want to thank her and will miss her. She developed a friendship with people in Naka, and through her gracious hospitality and friendliness gave many of us the precious opportunity of learning the French language. They say that the Huguet family enjoyed very much climbing and walking over the mountains and hills around Ibaraki, thus becoming more familiar with the area than are some of the local people.

We thank Dr. Huguet for his achievements and contributions to ITER. He played a crucial role in establishing the convincing scientific and technical basis for ITER implementation. This was only made possible by his broad abilities and his dedication to the cause of fusion in general and ITER in particular.

Guests at the Farewell Party

10.5 YEARS AT THE ITER NAKA JOINT WORK SITE

by Dr. Michel Huguet

This is a brief recollection of people and events, rather than technical achievements which are extensively described in ITER reports, during my 10.5 years as Head of the Joint Work Site at Naka.

When my wife and I arrived at Naka in October 1992, we were the first ITER persons and for about one month, I was the only member of the Joint Central Team (JCT). The first Division Head, R.Thome, arrived in early November and the team grew rapidly throughout 1993 with new Japanese, US and EU staff. The long-awaited first wave of Russian staff came in May 1994. Two years after the start of ITER EDA, the Naka team included already about 40 professionals. The peak of the team strength was reached by mid-1997 with a total staff on site in excess of 90, including 59 team members, 25 support staff and 5 to 10 visiting researchers. At the end of the initial EDA phase in July 1998, the team shrank dramatically when the US withdrew from the project and US staff left. However, early 1999 saw the arrival at Naka of the San Diego site "displaced persons" and the Naka team grew again to a total of about 50 professionals. At the end of the EDA extension in July 2001, a significant number of Russian and Japanese staff were recalled to their parent organizations. At about the same time, there were also EU staff who departed for personal and family reasons. At present, in June 2003, the Naka team includes about 30 members and 10 support staff.

From its inception at the start of EDA, the Naka JWS, was given the responsibility of the so-called Ex-Vessel systems, which covered most components and systems outside the Vacuum Vessel of the Tokamak, except the buildings and the site services and layout. The Naka Team structure reflected these responsibilities with three divisions: the Superconducting Coils and Structures division under R. Thome until the end of 1998, the Plasma and Field Control division under P. L. Mondino and the Nuclear Technology division under R. Haange. An important figure in the organization was that of B. Green who, as assistant to the Head of Site, assumed multiple technical and administrative functions. B. Green's positive attitude played a key role in establishing a strong, cohesive and successful team at Naka.

The production of engineering drawings and models was, and still is, one of the main work deliverables of the team and, throughout the EDA, Naka was provided with a strong CAD office with up to 15 CAD designers working under G. Dalle Carbonare. The need for such a strong CAD office had been the subject of intense negotiations at the beginning of the EDA but once an agreement was reached, JAERI remained firm in their support of these CAD office resources. At the end of the EDA, however, budgetary constraints led to a strong reduction of CAD resources at Naka and work sharing with the Garching Design Office had to be organized.

For the ITER team and home teams with a worldwide distribution, electronic communication is essential. In these 10.5 years at Naka, I am not able to recall a single crisis in relation to communication and information technology equipment. Given the complexity of the systems and the need to upgrade them frequently, this is a true "ITER feat" to be credited to the Naka information technology wizard, Sato-san.

The Naka JWS has also been well provided with support staff including secretaries, computer staff and social support personnel. It must be stressed that support staff at Naka have been fully integrated in the team and have played an important part in the team achievements. Special tribute must be paid to the Naka secretaries. Their loyalty and efficiency have been, and still are, exemplary and their full availability and kindness in all circumstances are appreciated by all, including visitors. As a matter of fact, long lasting friendly relationships have continued well after the departures of staff members and some of the secretaries.

In early 1999, the site organization changed when staff from San Diego were transferred to Naka. Y. Shimomura, the Deputy to the Director, came with the Physics Group under M. Shimada, and the diagnostics group under A. Costley. Furthermore, some of the former San Diego design integration activities and staff were incorporated into the Naka divisions. In this way, the machine assembly, the hot cell, the building design, the site services and layout became part of to the Nuclear Technology division responsibilities, stretching further the wide scope of this division.

At the end of the EDA extension in July 2001, staff resources declined in all areas. The Plasma and Field Control division lost all but one of its staff members and disappeared. It was no longer possible to continue design activities on a broad front and the scope of work was curtailed to focus on the most urgent activities for the preparation of ITER construction.

During EDA, CTA and the present ITA, the Naka JWS has successfully fulfilled its technical mission of developing designs and providing, in time, the required documentation for technical meetings and reports. The other main task, the initiation and coordination of R&D activities to be implemented by the home teams, has also been very successful and demonstrated a remarkable cooperative spirit even if the split responsibilities and management between the international team and home teams made it difficult at times. All these activities were coordinated with the other ITER sites, at Garching and San Diego until 1998, through joint meetings and visits from the Director, P. H. Rebut until 1994 and R. Aymar thereafter. The Naka site has also played its part in conveying to the outside world a positive and appealing image of the project and more generally of fusion research. Many senior politicians and leading personalities from industry and research organizations in Japan, Europe and the USA visited the site, especially during the EDA phase, and expressed their appreciation of the work of the international team.

All in all, Naka has enjoyed an excellent team spirit and benefited from a strong staff commitment driven by the feeling of participation in a large project with an important mission for the future of mankind. Importantly, division heads, group leaders and team members understood that their loyalty was to the team and the team management, and their loyalty to their home institutions had to come second. This is essential for the effectiveness and credibility of an international team. The working relationship between team members of so many different nationalities has been exceptionally good and helped produce a work environment that has been both pleasant and stimulating.

Establishing an international team in Japan was a challenge for those responsible for its organization. Coming to work in Japan for 6 or more years was also a challenge for the non-Japanese team members and their families. Looking back over those 10.5 years, I can state that these challenges have been successfully met. The main concerns of expatriates are well known: education for the children is the top priority, but housing, jobs for spouses, medical care, cultural and leisure activities are also important. In Japan, the language barrier, especially regarding reading and writing, is another major difficulty. These issues had been well

The ITER Team at Naka in summer 1994 during a visit of Director R. Aymar

anticipated by JAERI who had offered, together with the Naka site for the design team, a social package including a local “international” school, houses specially built or non-Japanese and staff dedicated to social support. Although the social package included the right basic ingredients, the implementation details remained to be worked out and were the subject of countless discussions between JAERI and the international team represented by B. Green. Thanks to a remarkable cooperative spirit on both sides, issues have been solved satisfactorily and amicably.

The local international school was operated, under contract with JAERI, as a local branch of an established international school in Tokyo. It used a specially built building on the JAERI site. The school remained rather small with up to three teachers and a peak number of pupils of less than 20. Although tuition was exclusively in English and for pupils up to the age of about 13, the school fulfilled its purpose and did allow families with young children to come at Naka. For older children, the only possibility was to use one of the Tokyo international school, a solution adopted by a few colleagues although inconvenient, because of the need to find accommodation in Tokyo, and onerous and therefore not available to all team members. The Naka international school ran until 2001 when the number of pupils declined so much that it could no longer be maintained.

The houses for non-Japanese staff have been built by JAERI in an area of Naka called Minouchi. There is a total of 46 detached and semi-detached houses, grouped in 4 blocks. The houses were satisfactory for most families although probably too small for those with more than 2 children. The close proximity of work colleagues as neighbours was generally not felt as a burden. There were, of course, the inevitable local “neighbourly differences”, but in general, the ITER Minouchi community enjoyed an active and harmonious social life. The sense of isolation, at least in the early days, the sharing of common difficulties and experiences and the need to help each other promoted a strong community feeling. The most visible aspect of the Minouchi community life was the Minouchi parties, held outdoors on some evenings. These parties attracted non-ITER friends and some Japanese neighbours who contributed with sake and Japanese songs. The life and soul of these parties was Dotty Koonce, the wife of a US colleague. Sadly, after the departure of the US contingent, the number of parties declined and some of the Minouchi spirit was lost.

The social support staff, the so-called “local coordinators”, have played an essential part in the life of the non-Japanese team members. As illiterate adults, the non-Japanese needed the local coordinator’s help not only for administrative matters but for many aspects of their personal and family life. As a result, the local coordinators found themselves involved in sometimes rather personal matters but they gained everybody’s respect and trust in dealing with all problems with kindness and tact. It is therefore no surprise that friendly relationship have been established and maintained long after some of the local coordinators left their job. Osaki-san and Kawagami-san, to cite but two, are still regular participants to Minouchi social events and ITER Parties.

The description of the Minouchi community would not be complete without mentioning Seki-san, the Japanese language teacher provided by JAERI. Seki-san was able to provide effective and entertaining classes, but unfortunately, many of her students did not rise to the challenge. Most students, including myself, followed the same pattern. After an enthusiastic start and some serious learning for a couple of years, the ITER heavy workload and the many trips outside Japan proved to be strong impediments to learning Japanese. The opportunities to use whatever was learned being rather limited, most team members resigned themselves to remaining illiterate. The wives, instead, did in general much better and quite a few achieved a reasonable level of fluency of the spoken language. The written language, however, remained largely unreachable.

The Naka experience is certainly very similar to the Garching experience and can be used as an indicator of what can be achieved and what is needed for the forthcoming ITER construction. An international team, with an effective technical control of the Project and with clearly specified technical responsibilities and authority at working and management levels, can and will operate efficiently. The interactions between the international team and the domestic organizations, including, in particular, the definition of the respective responsibilities and authority, must be well defined from the outset, as objectives and priorities may not always coincide throughout the long life of the project. The quality of the team depends on the quality and stability of the team members. The social package of the ITER site, as a means to attract and retain competent staff, is therefore a key element of the ultimate success of the project. During construction, long term staff secondments are essential to secure stability and continuity of technical responsibilities.

At the time of leaving this project, I wish to thank all Naka colleagues, past and present, for their dedication and excellent contributions. I also wish to express my appreciation of the support received from Garching colleagues and management, and from my colleagues in the Participant Teams. I wish to thank JAERI for their support to the international team at Naka. ITER is in a good technical state and I am confident that a positive decision to build will be taken soon. I wish all the best to my younger colleagues who will have the immense privilege to take part in this extraordinary project.

Special thanks go to my secretary, Tomoko Ito, for her loyalty, dedication and patience with me over these 10.5 years. Finally, I wish to thank my wife, Mady, whose presence and support have made my ITER adventure possible.

Items to be considered for inclusion in the ITER CTA Newsletter should be submitted to C. Basaldella, ITER Office, IAEA, Wagramer Strasse 5, P.O. Box 100, A-1400 Vienna, Austria, or Facsimile: +43 1 2633832, or e-mail: c.basaldella@iaea.org (phone +43 1 260026392).

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