Nuclear weapons decision-making in France

and the role of independent scientific advice

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Summary of main points

France is in a different situation than the UK, because the key decisions regarding the replacement of the force were taken more than ten years ago.

Nuclear weapons decision making is unique, because the field itself is unique. As is well-known, the extremely confidential nature of the data in this field means that the involvement of outside observers, as well as detailed public debate on these matters, is difficult. However, it cannot stay outside the democratic debate, because it involves the life and death of the nation. Therefore the situation is by nature unsatisfactory.

In France, the public debate is made even more difficult by the fact that the real decision making on nuclear policy involves a very small group of people (about 15-20). It is tightly controlled by the President of the Republic, who is directly elected.

This is not abnormal. After all, nuclear-weapon decision-making is a fundamentally political process. Political leaders have to answer questions such as: How much do I believe that country X could be a threat in 10 years? How much is it worth investing in this or that particular capability? The choices they make rely on political judgments on the "cost-effectiveness" of various options.

Of course, the interaction between science and technology, on the one hand, and politics, on the other, is a key part of the process. Detailed generic scenarios are needed to determine the combination of range, accuracy and yield that are deemed necessary for the deterrent to be credible. On the weapons themselves, there is a direct dialogue between the Atomic Energy Commission and the President: the Commission guarantees that the weapons can have certain characteristics in terms of reliability and safety. It is up to the President to decide what level of confidence he can live with.

Other, non-scientific factors come into play in shaping the nuclear programs. These include in particular the need to maintain a dedicated, highly-skilled and well-trained workforce. Taking into account this factor can affect production schedules, or the size of such or such program. These are generally secondary, not primary considerations. And it can be said that this is part of deterrence: to guarantee that the system will be able to maintain a credible deterrent.

Decisions sometimes have been taken against the opinion of scientists: for instance, the end of atmospheric testing in 1974, or the moratorium on testing in 1992. Such political decisions force scientists to be creative and adapt to new conditions.

There is little "independent" scientific advice coming into play regarding nuclear weapons decision-making in France – certainly less than in the United States, for instance. The size of the pool of competent personnel is much smaller, which makes it more difficult to find

appropriately trained scientists and engineers outside the government bureaucracy. Also, the traditional American practice of “revolving doors” has no equivalent in France. There is a “firewall” between civil servants and non-governmental experts. Finally, there is not a lot of interest in nuclear policy matters in the scientific world – due to the consensus that still exists on these matters in France.

Therefore, it is exceptional that such non-governmental experts participate in the decision-making process – apart from the odd informal, personal advice. A rare exception was the commission set up by Prime Minister Edouard Balladur in 1993, whose goal was to decide whether or not the French nuclear deterrent could be credible and reliable without live nuclear testing; it included a couple of non-governmental experts.

To sum up: there is little “independent” scientific input in French nuclear decision-making. However, nothing seems to preclude the creation of a JASON-like group of people who would be asked to produce, on an ad hoc basis, an independent opinion on a given nuclear policy problem. The French nuclear program is more than fifty years old and the number of former nuclear scientists is fairly high. It could be conceivable to select some of the younger ones, maintain their security clearances, and ask them for an independent opinion when needed. Perhaps the government would insist on such opinion to remain confidential. If that was the case, there would be little gain in terms of democratic accountability. But it would certainly contribute to the efficiency of the decision-making process, with little cost.