Introduction


My special guest today is FAS member Dr. Pierce Corden, visiting scholar at the Center for Science, Technology and Security Policy at the American Association for the advancement of science, or AAAS. Dr Corden is one of the world’s leading experts on the Comprehensive Test Ban Treaty and has over 30 years of experience working on this issue. Prior to joining AAAS, Dr. Corden was the director of administration for the Comprehensive Test Ban Treaty’s organization’s preparatory commission in Vienna, Austria, where he oversaw the program for the buildup of the treaty’s 337 facility international monitoring system, its global communications infrastructure and its international data center, as well as for preparations for onsite inspections. Prior to that, he chaired the CTBT Backstopping Group in the Arms Control Agency and then the State Department from 1993 to 2002 and was involved in earlier interagency reviews of nuclear testing issues. Dr. Corden is also a long time FAS member and also the first non-FAS staff member to be interviewed on the FAS Podcast.

Welcome Dr. Corden.

Dr. Corden: Thank you James, I’m glad to be here. Let me say that today I will be speaking in my personal capacity.

Interview

James: Let’s begin, can you tell our listeners about your professional background and your experience working on issues relating to the Comprehensive Test Ban Treaty?

Dr. Corden: After I completed my graduate work in physics and took my PhD in 1971, I joined the Arms Control and Disarmament Agency and was assigned, right away, to an inter-agency study that was underway considering various issues relating to a Comprehensive Test Ban Treaty. My involvement continued in the 1974-1976 period with my work on the negotiation of the Threshold Test Ban Treaty and the Peaceful Nuclear Explosions Treaty. I was then involved,
from time to time, in the 1977-1979 negotiations on the CTBT, which did not result in an agreement. Throughout that time I was also involved in the Geneva based group of scientific experts which was supporting the conference on disarmament there and its consideration of test ban issues. Then I returned to work on the CTBT, again, from 1993-2002 as you already have noted. So my engagement with the treaty has been rather continuous over a period of some 40 years now.

James: Now the CTBT has not yet entered into force and the US Senate declined to consent to its ratification in 1999 by a vote of 51-48. So, can you tell us where the Treaty and its preparatory institutions stand and after the Senate’s ratification of New START, what do the Test Ban’s prospects look like?

Dr. Corden: The Comprehensive Test Ban Treaty now has 182 signatory states out of a global number of about 192 and of those 182 states, 153 have ratified the treaty; this includes Russia, France, the United Kingdom, all of our other NATO allies, all of the members of the European Union and our Asian allies, Japan, South Korea and Australia. India and Pakistan, North Korea have not yet signed the treaty; however, Israel has signed the treaty and this is the first international arms agreement to which Israel has committed itself. In Vienna the Preparatory Commission for the CTBT organization began its work in 1997 and has proceeded over the last 14 years to install something like 80% of the stations that will be part of the international monitoring system, as well as carrying out preparatory activities for onsite inspections and those activities have included field exercises in Kazakhstan, Jordan and other places to try out actual onsite inspection techniques. So the preparatory work has gone on very well, the commission and its secretariat, the provisional technical secretariat, are doing very good work, they have been supported reasonably well financially and of course we hope that all states who have signed the treaty will continue to provide both their political and financial support to the work of completing the international monitoring system and preparing for the entry into force of the treaty. The prospects for the test ban really depend, in large measure, upon United States actions and there for the Obama administration, decisions will need to be takes to see how the administration wants to proceed in dealing with the CTBT as part of its larger national security agenda, which does, of course, include other aspects, such as, considering now fallow on steps to the new start treaty and other arms control issues, including those related to conventional weapons.

James: Last week at the Carnegie International Policy Conference, GOP minority Whip, Senator John Kyle, a leading voice on issues on international security said, “there is less reason to ratify the CTBT now than there was in 1999”. What might cause him to say something like that and is it your assessment that he is correct or not?

Dr. Corden: Well I can’t speak for the Senator, of course, but I must say I’m not sure why there would be less reason today to ratify the CTBT than there was 11 years ago. In my judgment there is even stronger reason to proceed as soon as possible to secure United States ratification to the
treaty; this would enable us to be in a stronger position internationally in dealing with both Iran and North Korea. It would permit us to work harder and more effectively to stabilize the situation in South Asia, in particular between Pakistan and India and between India and China. As far as the direct effects, this would strengthen the barrier against China acquiring greater strategic capabilities were it able to test and to optimize its MIRV’ing capability as well as to be a stronger barrier against the advancement of nuclear weapons capabilities by India and Pakistan.

**James:** During the 1999 Senate ratification debates opponents of the test ban raised serious concerns about whether the CTBT was verifiable, has the situation changed since then? And what about national technical means and has the CTBT Preparatory Commission’s international monitoring system changed at all since 1999? Can a ban on nuclear testing be verified?

**Dr. Corden:** Well the situation has certainly changed in the 11 years since the senate declined to support ratification of the treaty. Our technical means are more capable today than they were 11 years ago and we now have 10 years of experience with installing and using the international monitoring system, including not only seismic capabilities, underwater capabilities, but as we’ve seen most recently with respect to the tragic accident at Fukushima DaiiChi nuclear reactor facility in Japan, the radio nucleotide stations in the international monitoring system have been proven to be extraordinarily capable at detecting very small amounts of radioactivity. In 1999 no station in the international monitoring system had been certified, that is, put in a position where the data that it would provide could be confidently used. Now there are some 80% of the total number of systems of stations that are envisaged which have been certified. Verification is in the last analysis a net assessment, it’s necessary to look at the benefits that the treaty can provide to the United States and the risks that might come about if verification were not capable of countering those risks, and it’s certainly in my judgment and rather an easy judgment that the benefits of the ban would outweigh any possible teething scenarios that could provide testing opportunities to a potential advisory.

**James:** CTBT opponents contend that Russia, China, and possible other states may cheat and carry out undetectable low yield so called hydro-nuclear testing or seek to mask higher yield nuclear tests. Do you believe that this is a problem; could states make considerable improvements to their arsenals by cheating?

**Dr. Corden:** As I indicated in response to your last question it is my judgment that the Test Ban Treaty is effectively verifiable. It’s important to note that when you consider all the possible ways to keep track of testing or potential testing activities of other states that the probability of a successful detection of a cheating attempt is never 0 the probability of catching truly significant cheating is in my judgment, more than sufficient. So I don’t believe that other states that have nuclear weapons capabilities could carry out improvements to their weapons which would change the military balance.
James: Now turning to maintenance efforts. I want to ask you about the Stockpile Stewardship Program and the Obama Administration’s plan to inject an additional $85 Billion into the US nuclear complex over the next decade. What will these efforts accomplish and can they help us maintain a safe, secure and reliable stockpile?

Dr. Corden: In general, the additional funds that have been committed to support the US nuclear weapons arsenal relate to rebuilding capabilities and new facilities that deal with the production of weapons or maintaining weapons in a condition where they can be used. For example there is a program to build a new plutonium processing facility at the Los Alamos Nuclear Laboratory and a similar program to build a new facility at the Oak Ridge national facility to use uranium. In addition, the Stockpile Stewardship Program, which under that name has been in existence since the middle of the 1990’s will continue, these focus more specifically on the warheads and not specifically on the production facilities or the maintenance facilities. So really you have a combination of the continuation of the traditional funding which has been at a level of about 6 billion dollars a year in addition to the new funding that has been planned for and in my judgment these efforts are more than sufficient to help us maintain a safe, secure and reliable stockpile.

James: Now in your opinion, does the United States need to continue testing its nuclear weapons?

Dr. Corden: Well as the nuclear posture review, which was completed and published just about one year ago says, “the United States has no requirement for any new military capabilities for its nuclear weapons” and the lifetime extension programs that are part of the stockpile stewardship programs as far as I can tell are more than adequate to maintain our existing nuclear weapons without the need to test them. I don’t believe that the United States needs to resume testing. In fact the last time the United States tested was in 1992. We have now been able to proceed without nuclear testing for some 19 years and based on the capabilities in the Stockpile Stewardship Program and the additional funding that’s being provided, it seems to me there’s no reason why we can’t continue along this line indefinitely.

James: As many of our listeners will know, the CTBT requires ratification by 44 designated states that are listed in its second annex before its entry into force. At this point, 9 of these states remain outside of the Treaty. Do you believe that United States ratification would have any effect on the willingness of other annex 2 states like India, Pakistan, Iran, China, Israel and North Korea to sign away their right to test?

Dr. Corden: I think US ratification would have a considerable impact on the views of other states. The United States continues to be looked up to as a leader in arms control and disarmament and in nonproliferation. At a minimum, the United States would have additional leverage in working with states like India, Pakistan, Iran, since its own ratification would remove a roadblock or an excuse by a state, let’s say Iran, that could say, “why should we ratify the
James: Now if in the end, one or two of the annex two states decides to ratify the CTBT are there any options for provisional entry into force and if so, how might a test ban function under such an arrangement?

Dr. Corden: The Comprehensive Test Ban Treaty has no provisions within its terms that relate to provisional entry into force. As a matter international law, it’s certainly conceivable that states that have signed or ratified the Treaty could consider alternate arrangements for bringing the arrangement into force, provisionally or perhaps minus the participation of one or more 44 designated states of which 9 still haven’t ratified. But I think it’s really too soon to consider options for how to proceed. At a minimum the United States, China and Russia will require the ratification by India and Pakistan; we will require the ratification by China; and I think for the Middle East states it’s almost certain Egypt, Israel and Iran will need to ratify, that leaves Indonesia which may ratify on its own account, soon and North Korea as the two states that will still need to ratify. Perhaps at that point the situation with North Korea will have been resolved to the extent where we can see our way forward if they do not ratify the Treaty.

James: So what can we expect to see in the future from the Obama Administration and Congress on the CTBT?

Dr. Corden: Well, as I noted at the beginning of our chat, this depends on a number of factors, given the overall national security priorities of the administration. I think it will be important for the administration to reach out to all 100 senators, in particular prominent senators such as, Richard Lugar and other prominent individual whose position either has changed or might change from where they were in 1999. Two come to mind immediately: one is Henry Kissinger and the other is Brent Skocroft. But in any event, the Administration will need to carry out a substantial effort and dialogue with the senators. The Comprehensive Test Ban Treaty should be dealt with as a non-partisan issue. There is the old adage that foreign policy should begin at the water’s edge and partisanship should stop at the water’s edge and I believe that holds true for the Test Ban Treaty.

James: Is there anything interested FAS members, students and those in the arms control community can do to contribute to the upcoming debate on the Test Ban?

Dr. Corden: There are many opportunities for members, students and others in the arms control community to contribute. This can take place though the FAS, which has maintained a strong interest in the CTBT over many decades, actually. Here in Washington the Arms Control Agency
has spearheaded an effort among the nongovernmental organizations to be organized to support the Treaty and interested people can log on to the website of the Arms Control Association and navigate through to their page that deals with their test ban support. Members of the Arms Control Community can also and should be in touch with their senators and voice their views in favor of the proceeding with ratification.

James: I would also like to mention that students can also join or start a FAS Students for International Security or SIS group at their university to raise awareness of CTBT on their campus and of course you can learn more about the SIS program on the FAS website. I’d like to end with one final question: Dr. Corden, why did you join FAS?

Dr. Corden: Many scientists involved in the FAS, including Nobel Laureates and such prominent scientists in the Arms Control field as Richard Garwin, whose views I respect are members of FAS or on its Board of Supporters and I believe that the FAS is an effective organization on the Washington scene to put science into the national security equation so that issues such as the CTBT can be dealt with as dispassionately as possible. This was certainly the case when I joined many, many years ago when I first joined the Federation and I think this continues to be the case, and I am very proud to be a member of the Federation of American Scientists.

James: Well thank you so much Dr. Corden, this has been quite informative. To those of you listening, if you would like to know more about what Dr. Corden discussed today, please visit the website, www.fas.org. This concludes the FAS podcast, thank you for listening today. Please tune in again next month for another addition of a conversation with an expert.