



Matthew Meselson &lt;msmeselson@gmail.com&gt;

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## nixon decision of 1969

7 messages

David Hoffman &lt;hoffmand@washpost.com&gt;

Wed, Oct 6, 2010 at 12:15 PM

To: Matthew Meselson &lt;msmeselson@gmail.com&gt;, msm@wjh.harvard.edu

Dear Matthew,

I hope this email finds you well.

You may recall we had an exchange of messages about two years ago on the issue of the U.S. field tests of biological weapons in the 1960s. The tests were conducted in the Pacific, and also in Alaska, involving simulants and live agents. At the time you said a proper account of the tests has never been released, but there were two versions. One was that the tests were successful in that they showed that predictable doses could be delivered. Another was that the tests were actually a case of SNAFU. You said you didn't know which was correct.

In recent weeks, thanks to a source, I have been allowed to read and examine several thousand pages of original reports and documents on these tests. The author was involved with the program at Fort Detrick, and so was probably interested in showing that the tests were successful. The reports suggest that by 1969, the United States had: tested live agents, disseminated over large areas, up to 7,000 square kms; slowed the biodecay of the agents (and in the case of freeze-dried tularemia, they recorded a bio-decay rate of "zero"); tested munitions that could disseminate agents along a line source on a high-speed airplane; had achieved infectious (and lethal) doses of varying degrees over wide areas; had created a cocktail of agents (tularemia and SEB); and they had calculated, using Kenneth Calder's formulas, that they would achieve a high degree of casualties in a populated area based on the doses recorded in the tests.

At the same time, Nixon said in his announcement that the weapons were unpredictable and potentially uncontrollable.

I am aware that the tests have been broadly characterized before -- including in my book and in Jeanne's. But I wonder if the actual test results (or at least the documents about them) were known by the White House at the time Nixon made his decision? Were they known to the President's Science Advisory Council when they wrote their report? This report has never been released but I am wondering why there was such a disconnect between the test results, as I have examined the papers, and Nixon's words? Did Nixon intentionally mislead in hopes of discouraging other nations from pursuing these weapons? Did Nixon know of the test results, and perhaps make his decision based on knowledge that the weapons could, indeed, be predictable and strategic, and therefore it was even more urgent to outlaw them?

Hoffman

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I have re-examined your own Sept. 1969 memo, which captured almost perfectly the state of the science, with the passage about a lone plane and line source dissemination. Did you know of the test results, back then?

Any thoughts you may have on the above would be most welcome. If you like I could provide some specifics from the new (old) papers.

With respect and gratitude,

David E. Hoffman

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Matthew Meselson <msmeselson@gmail.com>

Wed, Oct 27, 2010 at 1:54 AM

To: David Hoffman <hoffmand@washpost.com>

Dear David,

Please excuse the lateness of this reply. I'll add what little I can by typing between the lines of your email.

On Wed, Oct 6, 2010 at 12:15 PM, David Hoffman <hoffmand@washpost.com> wrote:

Dear Matthew,

I hope this email finds you well.

You may recall we had an exchange of messages about two years ago on the issue of the U.S. field tests of biological weapons in the 1960s. The tests were conducted in the Pacific, and also in Alaska, involving simulants and live agents. At the time you said a proper account of the tests has never been released, but there were two versions. One was that the tests were successful in that they showed that predictable doses could be delivered. Another was that the tests were actually a case of SNAFU. You said you didn't know which was correct. The negative description I heard was from Professor Norton Zinder of the Rockefeller, an early graduate student of Josh Lederberg. Norton spent many months chairing an NAS committee advising the Army on chemdemil. In that capacity he came to know General Peter Olenchuk, a chemical corps officer. See <http://www.arlingtoncemetery.net/pgolenchuk.htm>. According to Zinder, Olenchuk described the reports of the tests as inaccurate and the tests themselves as not very satisfactory. I knew Olenchuk fairly well from

the time I served on an earlier NAS committee on chemdemil as related to operation CHASE and thought highly of him but I never tried to verify Zinder's account.

In recent weeks, thanks to a source, I have been allowed to read and examine several thousand pages of original reports and documents on these tests. The author was involved with the program at Fort Detrick, and so was probably interested in showing that the tests were successful. The reports suggest that by 1969, the United States had: tested live agents, disseminated over large areas, up to 7,000 square kms; slowed the biodecay of the agents (and in the case of freeze-dried tularemia, they recorded a bio-decay rate of "zero"); tested munitions that could disseminate agents along a line source on a high-speed airplane; had achieved infectious (and lethal) doses of varying degrees over wide areas; had created a cocktail of agents (tularemia and SEB); and they had calculated, using Kenneth Calder's formulas, (Calder's fomulas as referred to here are essentially the same as the simple Gaussian formulas developed and published by Pasquill of the UK met office and used by me in calculating the isopleths for the Sverdlovsk anthrax we published in Science. Pasquill had worked with Calder in the UK early on and much later again -- in the US in retirement. Your mention of Calder makes me think that your source could have been the late Bill Patrick. Recall that Patrick is quoted in "Germs" as having "hooted" at my Sverdlovsk calculations. Patrick had made his own calculations which were sent to me via his friend Thomas Dashiell of OSD and Detrick in response to my asking Dashiell for comment on my draft Sverdlovsk MS for Science. Patrick's comments included high praise for Calder but his calculations were very far off and left the impression that he did not understand how to do it right. that they would achieve a high degree of casualties in a populated area based on the doses recorded in the tests.

At the same time, Nixon said in his announcement that the weapons were unpredictable and potentially uncontrollable. In Kennedy days, PSAC had opposed doing the Pacific tests on grounds that wind or contaminated birds might carry pathogens to South America possibly causing endemic infection and/or providing Soviet agents with information about our BW program. The Army responded by showing that BW agents sprayed on shearwaters (a kind of bird) would lose virulence during flight over such distances. And as you know, the "Pacific Bird Project" administered by the Smithsonian then under Dillon Ripley was intended to find the time of year with minimum bird passage through the test area. Eventually the White House agreed with going ahead. It may be that there are PSAC documents about the tests. Dick Garwin may know as he was on PSAC in those days. Dick was in good spirits when last I saw him, a few weeks ago.

I am aware that the tests have been broadly characterized before -- including in my book and in Jeanne's. But I wonder if the actual test results (or at least the documents about them) were known by the White House at the time Nixon made his decision? Were they known to the President's Science Advisory Council when they wrote their report? This report has never been released but I am wondering why there was such a disconnect between the test results, as I have examined the papers, and Nixon's words? Did Nixon intentionally mislead in hopes of discouraging other nations from pursuing these weapons? Did Nixon know of the test results, and perhaps make his decision based on knowledge that the weapons could, indeed, be predictable and strategic, and therefore it was even more urgent to outlaw them? I think that from his position as President, Richard Nixon would have paid little attention to the test results if he even knew of them. It seems more likely to me that he believed that BW would make world problems even less manageable and the US security environment even less predictable.

I think that Henry Kissinger would say the same if you were to ask him. I believe that Wm Safire wrote the speech.

As you know Nixon was told even by OSD that we had little need for BW. (Not so with toxins, which Laird advised keeping if made chemically and which the JCS advised keeping even if made biologically--but which Nixon renounced unconditionally, as announced from Key Biscayne in February 1970.

Unfortunately there is nothing in the papers I have examined which would indicate any answers to these questions. There is no paper trail or signs of transmission to the White House or not. They essentially sat in a drawer for many years.

I have re-examined your own Sept. 1969 memo, which captured almost perfectly the state of the science, with the passage about a lone plane and line source dissemination. Did you know of the test results, back then? No, I had made my own simple calculations based on assumptions about dose response and atmospheric dispersion. Of course human response is a big uncertainty.

Any thoughts you may have on the above would be most welcome. If you like I could provide some specifics from the new (old) papers. David, I may be in DC for a few days around November 15 and if so would of course be delighted to see you if you think it would be of any help.

Best regards from Jeanne and me,

Matt

With respect and gratitude,

David E. Hoffman

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Matthew Meselson  
Thomas Dudley Cabot Professor of the Natural Sciences  
Department of Molecular and Cellular Biology  
Harvard University  
16 Divinity Avenue  
Cambridge, MA 02138  
Telephone 617-495-2264

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Matthew Meselson <[msmeselson@gmail.com](mailto:msmeselson@gmail.com)>  
To: Jeanne Guillemin <[jguillemin6@gmail.com](mailto:jguillemin6@gmail.com)>

Wed, Oct 27, 2010 at 1:58 AM

FYI

[Quoted text hidden]

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David Hoffman <hoffmand@washpost.com>  
To: Matthew Meselson <msmeselson@gmail.com>

Wed, Oct 27, 2010 at 12:23 PM

Dear Matthew,

I would be delighted to see you in Washington. I am here until Nov. 18 -- so if we can get together on the 15th, 16th or 17th, that would be great.

I have found a memo on Calder's error. On 12 of 30 tables on line-source dissemination and casualty estimates, the calculations were in error in some cases by an order of magnitude. It is probably a moot point today because the government has developed new computer modeling tools, including one called HPAC at the Defense Threat Reduction Agency. But Calder's numbers were used by the U.S. BW program from Dec. 1957 until the end, and thus would have been the basis for any decisions made about the effectiveness of the tests.

I have received an informative email from Dr. Garwin, who says that PSAC did indeed review the US test results and had access to them all. Their report is now at the Nixon library and I am endeavoring to get it declassified, at least in part.

I also have talked to Michael Guhin, who was Kissinger's staffer at the time and put the presidential decision package together. He thinks Nixon might have received a summary of the tests, but, like you, believes the decision was based on larger considerations.

Please let me know of your plans in Washington, I look forward to seeing you. I would love to share a meal if you are free.

Best,

David

-----Matthew Meselson <msmeselson@gmail.com> wrote: -----

To: David Hoffman <hoffmand@washpost.com>  
From: Matthew Meselson <msmeselson@gmail.com>  
Date: 10/27/2010 01:54AM  
Subject: Re: nixon decision of 1969

[Quoted text hidden]

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Matthew Meselson <msmeselson@gmail.com>

Wed, Oct 27, 2010 at 3:26 PM

To: David Hoffman <hoffmand@washpost.com>

Dear David,

Marvelous that you are continuing to delve so deeply. You make history come alive. Can you tell who wrote the memo on Calder's error and the date of its writing?

I had not known of Calder's error. Could it have had the effect of (incorrectly) predicting the results claimed in reports of the tests? If so, would that imply selective reporting of the data or even actual falsification of data so as to make the test results look predictable?

Charles Babbage in his 1830 book *Reflections on the Decline of Science in England* calls such practices "cooking", "trimming" and "fraud".

Perhaps not relevant but in 1980 when I asked that Dugway check up on the estimates we were given at CIA (maybe done by Detrick people) for how much might have become airborne at Sverdlovsk, Dugway got the same much lower numbers that I had previously obtained using Pasquill's 1961 formulae. I still have my calculations and theirs.

Sandy Ropper here and I have been searching the Nixon archive and other archives for documents regarding the toxin decision and for a particular telegram from Bunker and Abrams sent through a back channel and very tightly held that Howard Simons once told me about and which was cited in the Post in December 1970. It would be grand to see you again. Lots to talk about.

Warm regards,

Matthew

[Quoted text hidden]

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David Hoffman <hoffmand@washpost.com>

Wed, Oct 27, 2010 at 3:57 PM

To: Matthew Meselson <msmeselson@gmail.com>

Dear Matthew,

I will bring the Calder documents when we meet.

I am also interested in the toxin decision. I don't know if you are aware of this, but at the very end of the offensive program -- in 1968-1969 -- the people involved were testing a weapon that was a combination of two agents, one biological and the other a toxin. The first was freeze-fried *Francisella tularensis*. The second was dried Staphylococcal Enterotoxin B. The idea was that they would be mixed, or disseminated at the same time. The reason SEB was included was a belief that it would intensify and prolong the impact of the biological agent. One of the latter tests in the Pacific was on SEB, in Sept.-Oct. 1968. Obviously, Nixon's toxin decision cut short any possibility of further developing SEB as a weapons agent. I had always thought that toxins were something of an afterthought in the offensive BW program but it turns out one of them was a candidate, at least in testing.

I look forward to our meeting, please let me know your plans at your earliest convenience.

Best,

David

-----Matthew Meselson <[mameselson@gmail.com](mailto:mameselson@gmail.com)> wrote: -----

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Date: 10/27/2010 03:26PM  
[Quoted text hidden]

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Matthew Meselson <[mameselson@gmail.com](mailto:mameselson@gmail.com)>

To: Jeanne Guillemin <[jguillemin6@gmail.com](mailto:jguillemin6@gmail.com)>

Thu, Oct 28, 2010 at 9:00 AM

Dear,

Here is the entire correspondence. I don't know how to send just the parts you do not already have.

**Forwarded conversation**

Subject: nixon decision of 1969

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Date: Wed, Oct 6, 2010 at 12:15 PM

To: Matthew Meselson <[mameselson@gmail.com](mailto:mameselson@gmail.com)>, [mmsm@wjh.harvard.edu](mailto:mmsm@wjh.harvard.edu)

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Matthew Meselson  
Thomas Dudley Cabot Professor of the Natural Sciences  
Department of Molecular and Cellular Biology  
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Telephone 617-495-2264

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