

(b)(6) for all redacted portions.

Documentation on Cold Fusion SME Elicitation

[REDACTED]

December 9, 2011

1. Selection criteria for developing the candidate SME list:

- a. Highly cited author in domain as revealed through scientometric research
- b. Author of well-received survey article or book
- c. Editor of journal in topic area
- d. Recognized leader by peers
- e. Program Director in a national funding agency

2. List of Cold Fusion SMEs who we elicited

SME	STATUS
[REDACTED], SRI International	Interviewed 11/15/11
[REDACTED], Space and Naval Warfare Systems Center	Will interview pending approval by her legal dept.
[REDACTED], George Washington University	Interview scheduled for 12/12/11
[REDACTED], Los Alamos Lab (retired)	No response
[REDACTED], University of Illinois (Emeritus)	Interview scheduled for 12/19/11
[REDACTED], University of Arizona	Declined
[REDACTED], Los Alamos Lab	Declined
[REDACTED], MIT	Interviewed 11/29/11
[REDACTED], UC/Berkeley	No response
[REDACTED], Senior Editor of the online magazine New Energy Times	Interviewed 12/1/11

3. Rationale for Selection of Krivit

I was first made aware of Krivit by a member of MITRE's research staff who sent us the URL for the LENR-CANC.org (Low Energy Nuclear Reactions (LENR), or Chemically Assisted Nuclear Reactions (CANR) web site which Krivit edits. This site provides a reference library related to all things LENR. In our interview with [REDACTED], he also referenced the site as a place that compiles publications, research, etc., related to LENR. I began using the site as a convenience for tracking down hard-to-find candidate SME publications and to identify co-authors (who we attempt to avoid).

I first contacted Krivit (via the web site) on 11/15/11. The email sought his help in tracking down current contact information for [REDACTED] (retired from Los Alamos) (email attached). I did not receive a response to this email. I followed up on 11/21/11 by calling the phone number on the web site. Prior to making the call, I gathered information about Steve Krivit, noting that in addition to editing this web site he had written and published several overview articles on LENR:

"He is the Senior Editor of the online magazine New Energy Times, Editor-in-Chief of the Wiley Nuclear Energy Encyclopedia, author of the LENR chapters in the Elsevier Encyclopedia of Electrochemical Power Sources, author of "A New Look at Low-Energy Nuclear Reaction Research," published in the Journal of Environmental Monitoring, co-editor of the American Chemical Society/Oxford University Press LENR Sourcebooks Volume 1 and Volume 2 and author of the New Energy Times Special Report on Bubble Fusion/Sonofusion. He and/or New Energy Times have been quoted or cited in Nature, Science, MSNBC, Chemical & Engineering News, Chemistry World, Intute, Current Science and many other media outlets."

Prior to making the call I thought about asking Krivit to serve as a SME. I considered the following:

- Cold Fusion is performed as an "underground" science
- Conferences in this field regularly include reports from credentialed scientists as well as researchers working completely outside of the institution of science (e.g., from their garage)
- Researchers publish primarily in conference proceedings rather than peer-reviewed journals

I reasoned that for Cold Fusion, Krivit represented as close in the field as you see to an "editor" and had authored several survey articles in respectable publications and therefore could be considered a candidate SME. I also considered that he might offer objectivity on the topic, particularly since he had been selected by several scientific publishers to prepare survey articles.

I spoke to Krivit for approximately 30 minutes on 11/21/11. Before he would respond to my request for information on [REDACTED] he conducted what I would refer to as a "background check" on me. Who was I, who did I work for, what does my company do, who is IARPA, what is our interest in Cold Fusion, etc. He searched the MITRE web page in real-time to confirm my answers. While I was uncomfortable during his questioning, the fact is that most of the Cold Fusion SME's we've contacted have conducted a lesser version of this interrogation. I figured it went with the territory. Long story short, once we got through the interrogation, he began telling me what he thought I needed to know about LENR. I cut this conversation short by inviting him to serve as a SME. Immediately after our conversation and prior to our interview I received the following emails from Krivit:

- 11/21/11 3 emails with link to LENR publications
- 11/22/11 request for name, affiliation and title of the other person who will be on the call? When do you expect to complete your final report? Will you be sending me a copy of the final report?
- 11/22 names of SMEs he encouraged me to contact (unsolicited); question about the scientific training of the interviewers
- 11/22 question regarding the questions he will be asked -- will they be the same as the ones I sent him?

- 11/23 did I make contact with [REDACTED] ? If not, I can help (I did not pursue)
- 11/23 Do you have a copy of a certain report?
- 11/28 Question for you....you know I'm a writer of course....so I'm working on writing out my answers...but I guess you want oral answers rather than written, I presume to insure source integrity? I'm wondering -What is the balance you expect from me, between reading from my notes versus speaking extemporaneously? Will your second person on the line be able to transcribe word for word, as a stenographer, in real time. Can I provide you with my written notes as follow-up to insure the accuracy of my responses

I responded to each email politely but discreetly, offering little in the way of concrete details.

On November 28th I contacted my PM [REDACTED] to alert him that I was concerned about this SME and possibility that he might try to publish on his web site information about our effort. We nevertheless decided to go ahead with the interview.

The interview was conducted by phone on 12/1/11 at 1:00PM. I was uncomfortable in the interview. He read his answers. The minute I went off-script and probed him, he was silent, asked if I wanted him to answer a question not on the "list" and then was inarticulate and bombastic. We spent 45 minutes on page 1 (background questions). When we completed the first 6 questions I told him we had another interview scheduled and unfortunately must keep to the existing time frame so we would have to move quickly through the remaining questions. We completed the interview and I thanked him.

We then received the following emails:

- 12/1 when will you be done with your LENR interviews?
- 12/1 How many SMEs do you have on your list?
- 12/2 a revision of his definition for Cold Fusion (that he had given in the interview)
- 12/2 lengthy email – "As a follow-up to my interview with you yesterday, I'd like to point out what appears to be a significant omission on the part of MITRE Corp.; your exclusion of theorist Lewis Larsen as one of your subject matter experts."
- 12/7 "Enclosed is the updated transcript of my responses to your questions. Would you kindly acknowledge receipt?"

I did not respond to any of these emails except the last one, which I cced you on. The language for that email was crafted with my manager, [REDACTED]. Obviously, we do not intend to include this interview in our case studies. One other point worth mentioning, anticipating this outcome I began soliciting additional Cold Fusion SMEs the same day.

Regarding the transcript /materials on his web site:

Krivot wrote: "[REDACTED] told me that she was doing background research on LENR on behalf of the Intelligence Advanced Research Projects Activity. She invited me to be interviewed as a subject-matter expert on LENR. "We are asking questions about the field to eminent scientists and experts like yourself who have been active participants in the field," [REDACTED] said. "IARPA's goal is to fund and help accelerate high-risk kinds of research for the intelligence community."

The above is bogus. I have a script I follow when introducing candidate SMEs to the program, the purpose of the interview, and its programmatic rationale.

Krivot wrote: "The case studies we are developing on science and technology emergence over the last 30 years are intended for government use. We are not publishing a report," [REDACTED] wrote.

Again – a distortion. The exact words from my 11/22 email (prior to the interview) are "The case studies we are developing on S&T emergence over the last 30 years are intended for government use in testing the performer systems. We are not publishing a report."

Krivot wrote: "I was surprised to learn that [REDACTED] was not interested in speaking with either expert. "We are happy to add [their names] to our list. Currently, we are not soliciting any more SMEs in this field, but we are glad to have [these] reference[s] should our situation change," [REDACTED] wrote. "

[REDACTED] actual language: "Thanks so much for recommending we speak with [REDACTED]. We are happy to add his name to our list. Currently, we are not soliciting any more SMEs in this field, but we are glad to have this reference should our situation change." This was from a 11/22/11 email. (prior to the interview). Note that he did not recommend that we speak to the 2nd person [REDACTED] until after the interview and I didn't respond to that email. So this was a conflation on his part.

I never mentioned the [REDACTED].

The "transcript" is not a transcript of the interview. It is a copy of the pre-read we send to every SME (that includes an introduction and the questions with ancillary definitions) and his written responses. The language attributed to MITRE is not correct.

During the interview, for the first six background questions he read his response. When our probes required him to go off-script, he was inarticulate and bombastic. He has inserted new language in his article in response to the off-script questions we asked (that said, I do not concur that these were the questions asked). At our initiation, we rushed through the remainder of the interview (apologizing to him for being "short on time").

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unless noted otherwise.

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Email communication with Steve Krivit 11/15/11 to present

1st email inquiry from [REDACTED] to Krivit (using web site email address)

From: [REDACTED]
Sent: Tuesday, November 15, 2011 10:00 AM
To: nrg2@newenergytimes.com
Subject: Web site contact

We are looking for a current email address for [REDACTED] so that we can send him the email below. Would you happen to have a current email for him?

Thank you so much!

[REDACTED]
The MITRE Corporation
7515 Colshire Drive
McLean, VA. 22102
www.mitre.org
[REDACTED]

[REDACTED],

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We are contacting you, as an eminent scientist who conducted research on Cold Fusion, to request your support for a government research effort. [REDACTED], an IARPA Program Manager, is sponsoring government research to achieve fundamental advances in our understanding of how scientific emergence occurs, how it can be detected, and how it can be measured. The program seeks to develop technology that will enable characterization and nomination of emerging scientific capabilities and provide supporting evidence and arguments for that nomination. The technology is intended to provide capabilities that complement human analysis of scientific emergence, and compare favorably to judgments derived from subject matter experts (SMEs) and additional sources.

Our purpose in contacting you is to solicit your help in evaluating performer systems developed through this research. Specifically, we are hoping you will agree to spend an hour with us by phone at your convenience to answer questions about the evolution of Cold Fusion from its origins as a concept through research and development in the field today. What we learn will be instrumental in helping us evaluate performer systems – and in this way contribute substantially to the goal of automating the process of tracking S&T developments around the world.

We hope that you will agree to participate. You will receive the materials we intend to use in your interview ahead of time. In total, we would like to ask you about a dozen questions. Our session will include (a) background contextual questions, (2) as well as questions about the development of a community of practice around cold fusion, scientific debates, availability of necessary infrastructure, demonstrations of R&D and commercialization, and comparison with complementary science/technologies; and (3) any recommendations you may offer for newly emerging science or technology that should be included in our study.

We are hoping, if possible, to complete our interviews prior to Christmas, but could seep into January if that is better for your schedule. Would it be possible for you to let us know if you are able to

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participate, and the best way to contact you to schedule a meeting? If you are not able to support this effort we would be very grateful if you could suggest other POCs with positions similar to yours or who were/are leaders in developing the concept and conducting research on Cold Fusion as an emerging science.

Please feel free to contact me with any questions you may have. Thank you for your consideration.

Regards,

[REDACTED]
The MITRE Corporation
7515 Colshire Drive
McLean, VA. 22102
www.mitre.org
[REDACTED]

Email sent from Krivit to [REDACTED] during first phone conversation

From: Steven Krivit <stevek@newenergytimes.com>
Sent: Monday, November 21, 2011 3:10 PM
To: [REDACTED]
Subject: LENR

<http://newenergytimes.com/v2/government/DTRA/DTRA-Report-on-LENR.shtml>

2nd email sent from Krivit to [REDACTED] during first phone conversation

From: Steven Krivit <stevek@newenergytimes.com>
Sent: Monday, November 21, 2011 3:10 PM
To: [REDACTED]
Subject: DIA REPORT

Not recommended as accurate or reliable report

<http://newenergytimes.com/v2/news/2009/DIALENRReport.shtml>

3rd email sent by Krivit to Michelson during first phone conversation

From: Steven Krivit <stevek@newenergytimes.com>
Sent: Monday, November 21, 2011 3:28 PM
To: [REDACTED]
Subject: LENR Reading List April 2011 - Package 1.zip
Attachments: LENR Reading List April 2011 - Package 1.zip

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Email sent by [REDACTED] to Krivit confirming scheduling of interview

From: [REDACTED]
Sent: Tuesday, November 22, 2011 8:07 AM
To: nrg2@newenergytimes.com
Subject: Dial-in instructions for Research on S&T Emergence: LENR case study
Attachments: Pre-read_for_SKrivit.docx

Steve,

We are looking forward to speaking with you, on Thursday, December 1, 2011 at 10:00AM PST (1:00PM EST). Below are dial-in instructions for attending the meeting. We have also attached a "pre-read" that includes the questions we will be asking you. This is strictly FYI in case you want to review the questions ahead of the meeting, but there is no necessity to do so.

Thank you so much for agreeing to meet with us! We are very grateful.

Regards,

[REDACTED]
The MITRE Corporation
7515 Colshire Drive
McLean, VA. 22102
www.mitre.org
[REDACTED]

Removed dial-in instructions

Email sent by Krivit to [REDACTED] prior to interview

From: Steven Krivit <stevek@newenergytimes.com>
Sent: Tuesday, November 22, 2011 5:28 PM
To: [REDACTED]
Subject: Re: Dial-in instructions for Research on S&T Emergence: LENR case study

Hi [REDACTED],

Got the questions, thank you. I will look them over in more detail in a few days. For the moment, I noticed that many words are contracted together and it makes reading difficult.

I do not know if this is because your version was taken from an OCR scan and transmitted that way, or because I am using an older version of MS Word. Assuming the latter, would it be possible for you to please send me a version in DOC rather than DOCX format?

A few more questions please:

1. Can you tell me the name, affiliation and title of the other person who will be on the call?

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2. When do you expect to complete your final report?
3. Will you be sending me a copy of the final report?

Thanks,
Steve

Email sent by Krivit to [REDACTED] prior to interview
From: Steven Krivit <stevek@newenergytimes.com>
Sent: Tuesday, November 22, 2011 5:33 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: LENR Subject Matter Experts

Hi [REDACTED]

I want to encourage you to also speak with [REDACTED] (cc in this email.) He is one of, if not the most-consulted experts by the federal government in the LENR field. His phone number, in Chicago, is [REDACTED]

Another question I have for you: So that I may speak with you most effectively, can you tell me a little about any particular science training or scientific expertise you have? (None is fine.)

Thanks,
Steve

Communications between [REDACTED] and Krivit prior to interview
From: Steven Krivit <stevek@newenergytimes.com>
Sent: Wednesday, November 23, 2011 12:01 PM
To: [REDACTED]
Subject: RE: Dial-in instructions for Research on S&T Emergence: LENR case study

Hi [REDACTED]

The DOC document is formatted clearly. Thank you very much. Will the questions on Dec. 1 be the same as in the pre-read?

Thanks,
Steve

At 07:25 AM 11/23/2011, you wrote: (from [REDACTED] to Krivit)

Steve,

I have saved and attached the pre-read in doc format. The second person on the call will be drawn from a team of MITRE staff who are assisting on the interviews. The case studies we are developing on S&T emergence over the last 30 years are intended for government use in testing

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the performer systems. We are not publishing a report.

Have a great holiday weekend!

Regards,

██████████

Communications between ██████████ and Krivit prior to interview

From: Steven Krivit <stevek@newenergytimes.com>

Sent: Wednesday, November 23, 2011 12:03 PM

To: ██████████

Subject: RE: LENR Subject Matter Experts

Hi ██████████,

Thanks...so in my responses, I'll probably pick the middle of the road as far as technical lingo and concepts. If you want more or less depth during the call, just let me know.

Thanks,
Steve

At 07:31 AM 11/23/2011, you wrote: (from ██████████ to Krivit)

Steve,

Thanks so much for recommending we speak with ██████████. We are happy to add his name to our list. Currently, we are not soliciting any more SMEs in this field, but we are glad to have this reference should our situation change.

We are not expert in the fields in which we conduct the interviews, yet we have had no problem communicating with or understanding the SMEs during the interviews. Please note that the types of questions we are asking tend to evoke more sociological-type responses rather than deep dives into the science or technology. Trust that we will ask questions as needed.

Regards,

██████████

Communications between ██████████ and Krivit prior to interview

From: Steven Krivit <stevek@newenergytimes.com>

Sent: Wednesday, November 23, 2011 12:21 PM

To: ██████████

Subject: RE: Dial-in instructions for Research on S&T Emergence: LENR case study

thank you
Happy Turkey (or Tofu) Day!

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At 08:56 AM 11/23/2011, you wrote:

Glad this worked! YES, same questions.

Communications between [REDACTED] and Krivit prior to interview

From: Steven Krivit <stevek@newenergytimes.com>
Sent: Wednesday, November 23, 2011 1:10 PM
To: [REDACTED]
Subject: RE: LENR Subject Matter Experts

[REDACTED]

By the way, did you end up making contact with [REDACTED]? If not - I can help.

Steve

At 09:01 AM 11/23/2011, you wrote:

Sounds good!

From: Steven Krivit [mailto:stevek@newenergytimes.com]
Sent: Wednesday, November 23, 2011 12:03 PM
To: [REDACTED]
Subject: RE: LENR Subject Matter Experts

Hi [REDACTED]

Thanks...so in my responses, I'll probably pick the middle of the road as far as technical lingo and concepts. If you want more or less depth during the call, just let me know.

Thanks,
Steve

Communication from Krivit to [REDACTED]

From: Steven Krivit <stevek@newenergytimes.com>
Sent: Monday, November 28, 2011 12:11 AM
To: [REDACTED]
Subject: Re: Dial-in instructions for Research on S&T Emergence: LENR case study

Hi [REDACTED]

Question for you....you know I'm a writer of course....so I'm working on writing out my answers...but I guess you want oral answers rather than written, I presume to insure source integrity?

I'm wondering -

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What is the balance you expect from me, between reading from my notes versus speaking extemporaneously?
Will your second person on the line be able to transcribe word for word, as a stenographer, in real time?
Can I provide you with my written notes as follow-up to insure the accuracy of my responses?

Thanks,
Steve

█,

I presume you have a copy of this?

█, "Recent Progress in Low Energy Nuclear Reactions." briefing prepared by NAVSEA. Dahlgren. for DDR&E, 28 August, 2009.

Steve

Communication between █ and Krivit
From: Steven Krivit <stevek@newenergytimes.com>
Sent: Monday, November 28, 2011 12:57 PM
To: █
Subject: RE: Dial-in instructions for Research on S&T Emergence: LENR case study

Hi █,

Okay, I understand. Thanks and I'm looking forward to assisting you with your task.

Steve

At 03:32 AM 11/28/2011, you wrote:

>Steve,

>

>Most of our SMEs never have the time to look at the questions prior to our
>interview. Our data gathering method is through the oral interview. We
>will pose the question, use note-taking to record your answers (for our
>purposes transcription is not necessary) and ask any follow-up questions
>we might have in real-time. If it is helpful to you to prepare your
>answers ahead of time and you have the time to do so that is great. But
>this is not something we request or need.

>

>Looking forward to speaking with you on Thursday.

>

>Regards,

>█

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Communication between [REDACTED] and Krivit

From: Steven Krivit <stevek@newenergytimes.com>

Sent: Monday, November 28, 2011 12:57 PM

To: [REDACTED]

Subject: RE: Dial-in instructions for Research on S&T Emergence: LENR case study

Hi [REDACTED]

Okay, I understand. Thanks and I'm looking forward to assisting you with your task.

Steve

At 03:32 AM 11/28/2011, you wrote:

>Steve,

>

>Most of our SMEs never have the time to look at the questions prior to our
>interview. Our data gathering method is through the oral interview. We
>will pose the question, use note-taking to record your answers (for our
>purposes transcription is not necessary) and ask any follow-up questions
>we might have in real-time. If it is helpful to you to prepare your
>answers ahead of time and you have the time to do so that is great. But
>this is not something we request or need.

>

>Looking forward to speaking with you on Thursday.

>

>Regards,

[REDACTED]

>

>-----Original Message-----

>From: Steven Krivit [mailto:stevek@newenergytimes.com]

>Sent: Monday, November 28, 2011 12:11 AM

>To: [REDACTED]

>Subject: Re: Dial-in instructions for Research on S&T Emergence: LENR case
>study

>

>Hi [REDACTED]

>

>Question for you....you know I'm a writer of course....so I'm working on
>writing out my answers...but I guess you want oral answers rather than
>written, I presume to insure source integrity?

>

>I'm wondering -

>

>What is the balance you expect from me, between reading from my notes
>versus speaking extemporaneously?

>Will your second person on the line be able to transcribe word for word, as
>a stenographer, in real time?

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>Can I provide you with my written notes as follow-up to insure the accuracy
>of my responses?

>

>Thanks,

>Steve

Communication between [REDACTED] and Krivit

From: Steven Krivit <stevek@newenergytimes.com>

Sent: Thursday, December 01, 2011 6:11 PM

To: [REDACTED]

Subject: RE: Dial-in instructions for Research on S&T Emergence: LENR case study

Hi [REDACTED]

Nice to talk with you today. When will you be done with all your LENR interviews?

Thanks,

Steve

At 05:59 AM 12/1/2011, you wrote:

Hi Steve,

We are looking forward to speaking with you at 10:00AM PST (1:00PM EST) today.

Regards,

[REDACTED]

From: [REDACTED]

Sent: Tuesday, November 22, 2011 8:07 AM

To: nrg2@newenergytimes.com

Subject: Dial-in instructions for Research on S&T Emergence: LENR case study

Steve,

We are looking forward to speaking with you, on Thursday, December 1, 2011 at 10:00AM PST (1:00PM EST). Below are dial-in instructions for attending the meeting. We have also attached a "pre-read" that includes the questions we will be asking you. This is strictly FYI in case you want to review the questions ahead of the meeting, but there is no necessity to do so.

Thank you so much for agreeing to meet with us! We are very grateful.

Regards,

[REDACTED]

The MITRE Corporation

7515 Colshire Drive

McLean, VA. 22102

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www.mitre.org
[REDACTED]

Communications after the interview (post 12/1/11)

From: Steven Krivit <stevek@newenergytimes.com>

Sent: Thursday, December 01, 2011 8:14 PM

To: [REDACTED]

Subject: RE: Dial-in instructions for Research on S&T Emergence: LENR case study

Thanks [REDACTED]

I'm cleaning up my text. I will definitely have it to you by the time you're done, which, sounds like by the end of this month/year. Probably I will have my text to you within one week.

Just curious, how many SMEs do you have on the list for LENR?

Steve

At 04:31 PM 12/1/2011, you wrote:

Steve,

Thank you so much for taking the time to speak with us today. We very much appreciate it. Our plan is to have completed the LENR interviews in the next few weeks.

Regards,

[REDACTED]
From: Steven Krivit [mailto:stevek@newenergytimes.com]

Sent: Thursday, December 01, 2011 6:11 PM

To: [REDACTED]

Subject: RE: Dial-in instructions for Research on S&T Emergence: LENR case study

Hi [REDACTED]

Nice to talk with you today. When will you be done with all your LENR interviews?

Thanks,
Steve

At 05:59 AM 12/1/2011, you wrote:

Hi Steve,

We are looking forward to speaking with you at 10:00AM PST (1:00PM EST) today.

Regards,

[REDACTED]

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Communication from Krivit to [REDACTED]
From: Steven Krivit <stevek@newenergytimes.com>
Sent: Friday, December 02, 2011 1:07 PM
To: [REDACTED]
Subject: How do you define "cold fusion"?

Hi [REDACTED]

I was not prepared for your question about a definition of cold fusion. Can you please strike from your record the off-the-cuff definition I provide and instead use this one?

How do you define "cold fusion"?

Cold fusion is a concept, unsupported by evidence but promoted by some people, that describes their belief that deuterons or protons can overcome high Coulomb barriers and engage in charged-particle fusion reactions at room temperature.

Thanks,
Steve

Steven B. Krivit
Senior Editor, New Energy Times
Executive Director, New Energy Institute Inc.
369-B Third Street | Suite 556 | San Rafael, California | USA 94901
T 310.470.8189 | M 310.721.5919 | F 213.226.4274
www.newenergytimes.com

Communication from Krivit to [REDACTED]
From: Steven Krivit <stevek@newenergytimes.com>
Sent: Friday, December 02, 2011 4:06 PM
To: [REDACTED]
Subject: Research on S&T Emergence: LENR case study

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Hi [REDACTED]

Thank you again for the opportunity to contribute to IARPA's initiative to learn more about LENR.

As a follow-up to my interview with you yesterday, I'd like to point out what appears to be a significant omission on the part of MITRE Corp.; your exclusion of theorist Lewis Larsen as one of your subject matter experts.

Without getting into technical details, let me offer you some perspective.

In Aug. 2009, at a Defense Intelligence Agency meeting SPAWAR, San Diego, [REDACTED] presented in the first bullet item in his first slide (shown in the image below) "Widom Larsen Theory is currently considered by many [people] in the government bureaucracy to explain

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LENR." <http://newenergytimes.com/v2/news/2009/DIALENRReport.shtml>

The authors of the 2006 DTRA report, Rich Sutton and George Ullrich, state "New theory by Widom[-Larsen] shows promise; collective surface effects, not fusion."

<http://newenergytimes.com/v2/government/DTRA/DTRA-Report-on-LENR.shtml>

What is the reason for the recognition and promise for this theory?

A famous quote by Einstein may shed light: "If you can't explain it simply, you don't understand it well enough."

Feynman modified it to something along the lines of, "if you can't explain it to your grandmother, then you don't truly understand it."

One of the reasons WLT is has gained such recognition in the government - but not among American cold fusion proponents - is that Larsen is the only LENR theorist who can, and has explained what happens in LENR in plain English. He can even do so without mathematics.

<http://newenergytimes.com/v2/news/2010/35/SR35913widomlarsen.shtml>

Everyone else is in this category: "Then a miracle occurs." The cartoon below is remarkably precise and insightful.

There is a reason why Bob Park, the most vocal skeptic of "cold fusion" and former spokesman for the American Physical Society gave a partial concession to the field on Dec. 12, 2006.

<http://newenergytimes.com/v2/reports/BobParkColdFusion.shtml>

There is a reason why Richard Garwin, a key participant in the Manhattan Project and designer of the first hydrogen bomb, who has never hesitated to offer his critique of the field, was insistent that I knew that despite his complaint about WLT, he did not saying WLT was wrong.

<http://newenergytimes.com/v2/sr/WL/media-3rd-party/GarwinWidomLarsenThread.pdf>

Considering the widespread recognition and respect for WLT within the federal government, I find it rather concerning that MITRE Corp. has elected not to speak with Larsen as a subject matter expert about LENR.

██████ "Thanks so much for recommending we speak with Mr. Larsen. We are happy to add his name to our list. Currently, we are not soliciting any more SMEs in this field, but we are glad to have this reference should our situation change.)

I am also surprised to learn from Dr. Frank Gordon that you have not made a request to interview him either. Gordon is now retired from the U.S. Navy, but for two decades, he led a research group which produced some of the most significant work in the field. There is no government research group in the U.S. that has more peer-reviewed LENR papers to their credit. None even come close.

<http://newenergytimes.com/v2/reports/SSC-SD-Refereed-Journal-Articles.shtml>

Steven

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Steven B. Krivit
Senior Editor, New Energy Times
Executive Director, New Energy Institute Inc.
369-B Third Street | Suite 556 | San Rafael, California | USA 94901
T 310.470.8189 | M 310.721.5919 | F 213.226.4274
www.newenergytimes.com

(b)(3)
From: Steven Krivit <stevek@newenergytimes.com>
Sent: Wednesday, December 07, 2011 10:52 PM
To: [REDACTED]
Subject: Research on S&T Emergence: LENR case study
Attachments: MITRE - IARPA - Krivit Updated Response.pdf

Hi [REDACTED]

Enclosed is the updated transcript of my responses to your questions.
Would you kindly acknowledge receipt?

Steven

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Senior Editor, New Energy Times
Executive Director, New Energy Institute Inc.
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www.newenergytimes.com

Final Communication from [REDACTED] to Krivit

(b)(3)
From: [REDACTED]
Sent: Thursday, December 08, 2011 5:52 AM
To: Steven Krivit
Cc: [REDACTED]
Subject: RE: Research on S&T Emergence: LENR case study

Mr. Krivit,

Thank you for participating in the interview on the emergence and evolution of LENR as a science and for the follow-on materials you sent. We have moved to the next phase of the study. We have all the information we need from you, bringing our interactions to a conclusion.

Thank you for your time.

Regards,
[REDACTED]

UNCLASSIFIED

SME Elicitation Instrument for Establishing a Baselining Process for Phase 1 FUSE T&E

Name: Steve Krivit

Domain: LENR

Date: 12/1/11

Interviewers: [REDACTED] (b)(6)

- Thank you for taking the time to meet with us. (b)(3)
- We are supporting the IARPA FUSE Program Manager, [REDACTED], in sponsoring government research that seeks fundamental advances in our understanding of how scientific and technical emergence occurs, how it can be detected, and how it can be measured. The program seeks to develop technology that will enable characterization and nomination of emerging S&T capabilities and provide supporting evidence and arguments for that nomination. The technology will provide capabilities that complement human analysis, and validation of these systems, and will require comparison to a subject matter expert judgment baseline.
- Toward that end, we are interviewing eminent scientists/experts, like you, in S&T domains that have emerged over the last 30 years. In particular, we would like to elicit your answers, as a SME, to potential challenge questions that will be posed to the technology developed through IARPA support. What we learn from you today will contribute substantially to our ability to identify and track S&T developments around the world.
- There are several things we'd like to cover today: (1) ask some background questions about your professional experience and domain; (2) solicit your answers to questions on scientific/technology emergence, and (3) discuss any feedback you might have on the approach.
- The questions we ask you today are the same questions we've asked all other SMEs we interviewed. We want to emphasize that there are no right or wrong answers.
- *We realize that the questions we are asking may feel somewhat artificial or narrow -- TEDIOUS. But we hope that you will bear with us, as the questions are crafted for a specific purpose -- trying to template the answers we get from SMEs -- to compare responses from the systems developed by IARPA performers to those of the baseline judgments provided by SMEs like yourself.*
- Finally, as the initial evaluation of performer systems is intended to be a blind assessment, we ask that you treat the challenge questions as confidential.

Do you have any questions before we get started?

Part 1: BACKGROUND

1. What is your scientific discipline, e.g. biology? engineering? computer science? etc.

Science investigation and analysis; for last 11 years have been focused on LENR. Before this had a career in network administration and a business degree. Also college background in basic physics

2. How and when did you become active in your domain?

February 2000 learned about new documentary on the subject of Cold Fusion. He found it fascinating and wanted to learn more. Contacted the filmmaker (Malov) and met him. Slowly began looking into subject and realized there were repolarized views. Cold Fusion was a curiosity to him til about 2003 when he went to the Int'l conference in Cambridge. Felt what he heard was consistent and convinced there was something there. Prepared an electronic report and then a book in 2004.

3. What is your definition of <domain>?

LENR is a weak interaction ...(see his written remarks).
Cold fusion is a concept, unsupported by evidence but promoted by some people, that describes their belief that deuterons or protons can overcome high Coulomb barriers and engage in charged-particle fusion reactions at room temperature.

4. What has been your role in the development of <domain> as an emerging science/technology?

Manage web site, prepare survey articles, presentations and publications that brought field from obscurity to public awareness. Supports emphasis on strong science. Reports flaws in field. Provides SME for business intelligence, to NASA, DOE, SANDIA, government of India DoE, many universities.

5. Who have you worked most closely with in this field? In this country? Abroad? Government? Industry? Academia?

No one particular group – works widely

6. What do you consider the major turning points in the evolution of your field, e.g., concepts, research, technology, academics, publications, funding, commercialization, etc.?

See written comments

1. 1989 John Bacchas and an independent investigator in India discover tritium – first evidence of a new nuclear phenomenon

2. **Melvin Miles (electronic chemist) – 2nd evidence of nuclear phenomenon; critics rejected the claim**
3. **1993-1996 Hagelstein, McKubre, Viatelli conducted LENR experiments that demonstrate excess heat; McKubre recognizes that fusion unlikely explanation for excess heat (1996)**
4. **1996 – Miley LENR experiments**
5. **1998 Misono Japanese physicist conducting LENR research**
6. **1998 McKubre's Helium 4 experiment**
7. **1998-2000 – Iomora research (Japanese physicist)**
8. **2000 McKubre's experiment M4 – claim of proof of cold fusion**
9. **2003 Letts and Craven research experiments**
10. **2004 Cold Fusion proponents pitch Dept of Energy – based on McKubre M4 work – brought CF to wider public awareness but no funding; SME thinks McKubre manipulated, fabricated data**
11. **2005 Widom/Larsen pre-print – weak interactions explain LENR; develop mathematically complete processes**
12. **2006 – Federal government begins to take LENR seriously; DTRI hold meeting; early critic (Ron Park) attends meeting and says LENR represents real science**
13. **2007 – SPAWAR conducts first experiment able to be repeated**
14. **2007 to present -- War against LENR – leaders in field failed to distinguish and detach LENR experiments from nuclear fusion. Responded poorly to Widom and Larsen.**

Part II: EMERGENCE QUESTIONS

We'd like to ask you six questions that we are using to evaluate performer systems. Each question has 2 parts

- *Part 1: Invites broad, substantive narratives*
- *Part 2: We ask that you translate your narrative into a YES, NO, or DON'T KNOW response over six time periods (1981-85; 1986-90; 1991-95; 1996-00; 2001-05; and 2006-10)*

	1981-85	1986-90	1991-95	1996-2000	2001-2005	2006-2010
Q 1b.						

Discuss cognitive burdens/memory loads. Sometimes things are crystal clear...Suggest anchoring a response to an event when they are not and we will date check after the fact to verify your answer.

1a. Can you help us understand how a CoP evolved over time in your domain? ...and then we will time bound

Question 1b: Was there a community of practice in your domain during these six time periods?

	1981-85	1986-90	1991-95	1996-2000	2001-2005	2006-2010
Q 1b	N	Y	Y	Y	Y	Y

A 'CoP' typically refers to the coalescing of investigators to research, develop, apply, or promote <domain>, or to otherwise contribute to the body of knowledge about <domain>.

Types of responses we've gotten to date from SMEs:

- **Professional engagement:** Publishing, conferences, workshops, meetings, professional societies, journals, independent teams of researchers working the same topic who "find" one another
- **Seminal acclaim:** Fundamental piece of research published/lauded
- **Funding:** Financial support provided for research
- **Common vocabulary:** Disparate researchers agree on terminology for emerging domain
- **Emergence of practitioners (vs. theorists)**

CoP evidenced by research, meeting places, conferences, etc.

2a. Can you help us understand whether there were debates in the scientific/technical community as your domain evolved? And if so, the nature/subject of those debates?

Question 2b: Were there debates within the scientific community about your domain during these six time periods?

	1981-85	1986-90	1991-95	1996-2000	2001-2005	2006-2010
Q 2b	N	Y	Y	Y	Y	Y

“Debates” typically encompass (a) conflicting viewpoints on issues within the body of knowledge about <concept>, (b) open and unresolved questions regarding approaches, methods, results, etc., within the body of knowledge about <concept>, and (c) conflicting viewpoints on the fundamental merits, usefulness, novelty, etc., of the body of knowledge about <concept>.

Such debates may arise not only internal to the community of investigators who are contributing to the body of knowledge about <concept>, but also external to it, e.g., within prevailing communities whose paradigms are challenged by <concept>.

Types of responses we’ve gotten to date from SMEs:

- **Uber controversies:** Challenges concerning the sphere or tenets of the prevailing domain driven by the emergence of a new offshoot domain
- **Disagreements on approach:** Challenges concerning the viability of methods, application, and/or findings of the emerging domain
- **Controversies surrounding publishing:** Disagreements about the handling of sensitive findings; obstructing publishing authors working in the new offshoot domain.

Main debates

- 1989-93 – Is it real? Major debates with critics from physics
- 1993-2004 – debates about “misinformation” (Chalres Bodel 2000 book – Rebirth of Cold Fusion)
- 2005-present – was it fusion? Debate within field about Widom/Larsen research

3a. Can you help us understand what kind of infrastructure was required to conduct research in your domain?

Question 3.1: Was the infrastructure needed to conduct research in your domain readily available during these six time periods?

	1981-85	1986-90	1991-95	1996-2000	2001-2005	2006-2010
Q 3b	Y	Y	Y	Y	Y	Y

“Infrastructure” typically refers to equipment, computational resources, access to hardware, software or well-defined algorithms, etc., that are required to effectively explore a line of technical or scientific inquiry.

“Readily available” typically means that few, if any, obstacles exist that prevent researchers from acquiring and properly employing said infrastructure.

Types of responses we’ve gotten to date from SMEs:

- **Impact from orthogonal field:** Advances in one field that impacts infrastructure of emerging domain
- **Improvements in technology:** Improvements in algorithms, computing resources, etc.

See his remarks.

Basically what is needed is a typical chemistry lab. ¾ of equipment existed at dawn of field and prior to Fleishmann/Pons research. For general work in the field, the infrastructure was there.

Notes that Fleishmann/Pons created their own calorimeters and devices in the infancy of the field.

Notes also that he is not sure when the nanotechnology elements became available.

4a. Can you help us understand how science/technology moved from a concept to a practice – from a concept about what might be possible to a demonstration of feasibility?

Question 4b: Was there a demonstration of a practical (vs. theoretical) application of your domain during these six time periods?

	1981-85	1986-90	1991-95	1996-2000	2001-2005	2006-2010
Q 4b	N	N	N	N	N	N

A “demonstration of practical application” typically means that <concept> has been tangibly realized (implemented, formed, built, etc.) and shown to contribute to solving a problem or satisfying an unmet need.

Types of responses we’ve gotten to date from SMEs:

- **Prototypes/Bench research:** Description in literature of how early lab research could be used; downloadables made available on web sites; use in real-world settings of pre-commercial capability
- **Commercialization:** Attempts to develop commercial products

No existing practical applications of LENR. Many unsuccessful attempts to achieve this demonstration of practical application.

5a. While the previous question was broad, this question narrows, focusing ONLY on commercial applications. Can you help us understand how commercialization of the domain occurred – if this is indeed the case?

Question 5b: Was there a demonstration of a commercial application of your domain during these 6 time periods?

	1981-85	1986-90	1991-95	1996-2000	2001-2005	2006-2010
Q 5b	N	N	N	N	N	N

A “demonstration of commercial application” typically means that <domain> has been incorporated (in whole or in part) into a product offered for sale in the commercial marketplace, or has played a key role in enabling the manufacture and sale of a commercial product.

Types of responses we’ve gotten to date from SMEs:

- **Commercial R&D:** (1) For purpose of developing commercial products; (2) r&d developed under license to a commercial or government enterprise
- **Market presence:** (1) Existence of for-profit companies; (2) products sold in marketplace

No practical application or commercial products.

At the dawn of your domain, was it a completely new innovation, or was it replacing a previous generation of science/technology? Was there an established science/technology that it was an alternative to, or was novel?

Question 6.1: Was your domain considered an alternative to an established technology during these 6 time periods?

	1981-85	1986-90	1991-95	1996-2000	2001-2005	2006-2010
Q 6.1	N	N	N	N	N	N

An “alternative to an established concept” is typically something relatively new which promises to replace or supplant a known and accepted/applied idea, tool, approach, solution, etc.

Types of responses we’ve gotten to date from SMEs:

- **Theoretical perspective:** Formulation of a new scientific/technological theory that goes beyond that of an earlier prevailing approach
- **Application perspective:** Demonstration of a new scientific/technological application beyond that of an earlier prevailing approach
- **Novel S/T (null example):** Introduction of a fundamentally new capability into a prevailing field which has no former counterpart

LENR represents the dawn of a new science for energy applications. Some may argue that it could be a replacement technology for thermal nuclear or nuclear fusion but he does not agree.

Concluding Questions

- ***That was the last emergence question with time periods. But before we conclude the interview, we have two ancillary questions.***
 - One of the particular interests of this research effort has to do with *worldwide* emergence of science/technology, suggesting a need for a multi-language capability. Were there any publications in languages other than English that significantly contributed to the evolution of your domain?

He can think of 2 books that were originally published in another language but ultimately published in English

- **Lewis Kervrav – book first came out in French but then translated**
 - **Mizuno (Nuclear Transmutation) first published in Japanese in 1996 or 1997 with English version 1998.**
-
- Finally, as this a multi-year research effort that will allow us to compile case studies on dozens of domains, we are wondering if you have any suggestions for “what’s next” in science/technology emergence? Are there new domains that are currently emerging, or are you aware of negative examples of emergence – lines of inquiry that would be considered “false starts” in that the “domains” are unlikely to emerge?

No

Thank you for supporting this effort.

(b)(6) for all redacted portions.

Preamble

Pre-Read for LENR Subject Matter Experts (SMEs)

Establishing Baseline Judgments for Phase 1 FUSE Test & Evaluation

Thank you for agreeing to meet with us. We appreciate your support. The IARPA FUSE research program is designed to fundamentally advance our understanding of how scientific emergence occurs, how it can be detected, and how it can be measured. The program seeks to develop technology that can characterize, nominate, and provide evidence for emerging scientific capabilities. The goal is to develop technology that complements human analysis and that can be validated by comparing system results to that of a subject-matter expert-judgment baseline.

Toward this end, we would like to elicit your answers, as an eminent editor covering LENR, to questions on emergence that will be posed to the systems developed by performers under contract to IARPA. What we learn will be instrumental in helping us evaluate these research systems – and in this way contribute substantially to our ability to identify and track S&T developments around the world.

The interview will cover: 1) background contextual questions (2) your answers to questions on scientific/technology emergence, and (3) any feedback you might have on the approach.

The questions you will be asked are the same questions we will ask all SMEs who we are interviewing. We want to emphasize that there are no right or wrong answers.

We realize that the questions we are asking may feel somewhat artificial or narrow. But we hope that you will bear with us, as the questions are crafted for a specific purpose – to compare responses from the automated systems being developed with IARPA funding to those of baseline judgments provided by SMEs like yourself.

Part 1: BACKGROUND

Q1 - [REDACTED] What is your scientific discipline?

A1 - Krivit: Science investigation and analysis.

Q2 - [REDACTED] What is your background? (question added during interview)

A2 - Krivit: I have spent the last 11 years investigating, analyzing and writing about the subject of low-energy nuclear reactions. My applicable background

comes from the experience that I have accumulated from speaking with the experts - scientists and researchers - throughout this time. It's been school through experience. Before that, I had a career in information technology as a network specialist. I have a bachelor's degree in business administration, and I studied industrial design for two years before that.

The industrial design program has enabled me to bring some skills from long ago that are applicable in this field. For example, I learned some basic physics from that course of study as well as materials and processes, which is intrinsic to this field.

Q3 - [REDACTED] How and when did you become involved with the science of LENR?

A3 - Krivit: It's a long story, but I'm going to start out by giving you a really short answer, and let's go from there to see how much more you want.

I started, I believe, in February 2000, when I learned that there was a new documentary video about the subject. I was fascinated to learn that the subject was still alive and kicking, and I contacted the producer of the video. His name was Gene Mallove. I wanted to know more, and he was very gracious to tell me all about it. I asked if I could come visit his laboratory in New Hampshire, and that's how and when it all started for me.

Q3.1 - [REDACTED] And then it became a life focus? (question added during interview)

A3.1 - Krivit: Yes. So the slightly more expanded story is that I continued from there. It was a curiosity, I would say, until August 2003. I was a computer geek at the time, so naturally I went onto the Web to try to learn more, and the most startling thing that I found was that there were two sets of 180-degree opinions about the subject. It was absolutely polarized. Some people said the entire subject was wrong; some people said the entire subject was right. I had the sense that that couldn't be like that, that there had to be some middle ground. So I started very slowly looking into it, and, at the time, all I knew about journalism was what I remembered in my 10th-grade journalism class, and that is — yes, seriously a skill from high school actually did apply to real life — I remembered that, if you really want to get the facts you have to get firsthand, first-person sources. You cannot even go to books. You have to go to where the books went to. I actually avoided reading books initially. I avoided reading other people's written work. I made it a practice to go speak to the principals and the original sources who were active in the field and who had been active in the field. Each time I learned something new, I put it up on the [*New Energy Times*] Web site, and that was the beginning, the very rough early beginning of the *New Energy Times* online magazine.

I didn't come to a conclusion about any significant reality of the field until August 2003. That's when I went to the international conference in Cambridge, [Massachusetts], and I met more than 100 people who were active in the field from, I think it was, about 12 different countries. I realized that there was no way that all of this research, all of these people could be deluding themselves, could be involved in a coordinated plan to deceive. The other thing was that there was consistency in the type of data that was being reported. To me, it seemed statistically improbable that this could have been just coincidental. At that point, I was convinced there was something there, that it meant something and that it was important. I made a commitment to put my full attention to the field.

Q4 - [REDACTED] What is your definition of LENR?

A4 - Krivit: LENRs are weak interactions and neutron-capture processes that occur in nanometer-to-micron-scale regions on surfaces in condensed matter at room temperature. Although nuclear, LENRs are not based on fission or any kind of fusion, both of which primarily involve the strong interaction. LENRs produce highly energetic nuclear reactions and elemental transmutations but do so without strong prompt radiation or long-lived radioactive waste.

Q4.1 - [REDACTED] What is your definition of "cold fusion"? [question added during interview; written response provided to MITRE Corp. the following day]

Cold fusion is a concept, unsupported by evidence but promoted by some people, that describes their belief that deuterons or protons can overcome high Coulomb barriers and engage in charged-particle fusion reactions at room temperature.

Q5 - [REDACTED] What has been your role in the development of LENR as an emerging science?

A5 - Krivit: It was in 2003 when I began a serious interest. Initially, my work started with an electronically published report I wrote, which led to a book in 2004. Since then, through my publications, international presentations and Web presence, I have assisted in bringing this field from general obscurity to widespread recognition and awareness.

I have been helping the public, mainstream media, academic institutions, industry and governments to understand and distinguish between the facts and the fallacies of LENR. To the best of my ability, I have consistently held a very hard line against poor or sometimes, as I have found, dishonest science. And I've done this regardless of whether the relevant matters involved apparent proponents or opponents of the science.

My early activity with the field was based on a natural level of beginner's ignorance. I lacked the skills and knowledge early on to be decisively critical, but

I was extremely enthusiastic. These early communications of mine were welcomed by most members of the field. Then I developed greater scientific expertise and understanding of the field, just as a matter of course. As I dug deeper in the research, I also found some of its biggest flaws, and I then had the ability to analyze them. Much to the surprise and dismay of some of the outspoken members of the field and their fans, I also reported those findings.

I have provided subject-matter expertise to NASA Langley Research Center, NASA Marshall Space Flight Center, Diligence Business Intelligence, Strategic Business Insights, Sandia National Laboratories Technical Library, Department of Energy National Energy Technology Laboratory Library, Government of India Department of Atomic Energy, Netherlands Study Center for Technology Trends, Stanford University Department of Materials Science, Johns Hopkins University, Princeton University, University of California Los Angeles and many of my colleagues in the media who lack specialized expertise in LENR.

Q6 - [REDACTED] Who have you worked most closely with in this field? In this country? Abroad? Government? Industry? Academia?

A6 - Krivit: Nobody in particular, everyone in general. I have worked independently. My attention does tend to shift from time to time based on a particular [subtopic] that I might be exploring in depth.

Q7 - [REDACTED] What do you consider the major turning points in the evolution of cold fusion as a field?

A7 - Krivit: I have identified 14 items that answer this question. Some are distinct, time-specific events, and some of them are phases that span a range of time, but I've listed them more or less chronologically.

1. Bockris and BARC's Tritium - The First Nuclear Evidence

In 1989, within the first few weeks [after the fusion announcement by Stanley Pons and Martin Fleischmann], John O'Mara Bockris, at the time an electrochemist at Texas A&M University, and, independently, Padmanabha Krishnagopala Iyengar and Mahadeva Srinivasan, nuclear physicists at the Bhabha Atomic Research Centre in Trombay, India, discovered tritium in their LENR cells after performing their experiments. These were the very first sets of nuclear evidence in the field. However, there was so much general controversy and confusion at this time that these results - proof of a new nuclear phenomenon - went largely unnoticed.

2. Miles' Helium-4 - The Second Nuclear Evidence

In 1990, Melvin Miles, at the time an electrochemist with the U.S. Navy China Lake laboratory, reported helium-4 production in his LENR experiments. This, too, is evidence of a nuclear reaction. However, his first experiments were performed in glass cells. Critics, citing the normal presence of helium-4 in the air

and saying that helium could have leaked through the glass, rejected Miles' initial claim. Miles and, separately, Bockris subsequently performed experiments in stainless steel and again detected significant amounts of helium-4.

3. Hagelstein, McKubre and Piantelli - Independent Recognition That Fusion Was Unlikely

Between 1993 and 1996, several milestones occurred that showed that people understood that the phenomena were not explained by a fusion process.

In 1993, Peter Hagelstein, an associate professor of electrical engineering at MIT, summarized the field and wrote in a review paper that nonfusion, weak-interaction, neutron-based theories "more closely match[ed] the experimental observations."

A year later, in the fall of 1994, Francesco Piantelli, at the time a professor of biophysics at the University of Siena, Sergio Focardi, a professor of physics at the University of Bologna, and Roberto Habel, a professor of physics at the University of Cagliari, performed a set of LENR experiments with nickel and light-hydrogen gas. Light-hydrogen LENR reactions are inexplicable by fusion.

The group obtained one of the most significant [to this day] sets of excess-heat results: One cell produced 38.9 +/-1.5 watts of heat; another produced 23.0 +/-1.3 watts of heat. The cells produced excess power continuously at a slowly increasing rate during that period: the first for 278 days; the second for 319 days. The integrated excess energy was 900 MJ and 600 MJ, respectively. Their work is a milestone in the field, but even though they obtained, scientifically, a phenomenal amount of excess heat, their work never caused a major turning point in the field. In fact, no excess-heat claim has ever convinced any skeptic of the reality of this field.

Q7.1 - [REDACTED]: In your turning points, I noticed there is no mention of Fleischmann and Pons. I'm assuming that is because they are the proponents of excess heat. Or theirs is the fusion component. Is that correct? [question added during interview]

A7.1 - Krivit: You'll read in my encyclopedia articles that there were aspects of this field that began in the 1920s. Pons and Fleischmann were not the first to start working on this, but they were the first to have significant results in the subject. They were the first to bring it significantly into the public domain. Pons and Fleischmann's work was an initiation point, not a turning point. In terms of the turning points of the evolution of the field, in terms of significant contributions of Pons and Fleischmann, I do not see a contribution from them to any major turning point beyond their initial introduction of the subject.

Going back to item #3 - In 1996, Michael McKubre, an electrochemist at SRI International, also recognized the distinction between LENR and cold fusion. He

appeared on "ABC Nightline" and said that fusion was an unlikely explanation for the heavy-hydrogen LENR research. He said it was definitely not an explanation for the light-hydrogen LENR research.

4. Miley's Five-Peak Elemental Spectrum From Ni-H LENR Research

In 1996, George Miley, at the time a [nuclear engineer] at the University of Illinois, published transmutation data from light-hydrogen LENR experiments. The data displayed a very distinct five-peak spectrum. A guy named Lewis Larsen, a newcomer to the field who had trained as a physicist, saw Miley's data, and he recognized that the spectrum was very similar to one he had seen somewhere else in nature, specifically in the field of astrophysics. The LENR spectrum that Miley had corresponded to atomic abundances in the sun and stars and, by association in Larsen's mind, lent credibility to LENRs as real nuclear processes. There was a second point about the recognition of Miley's spectrum. His results were also inexplicable as the result of either deuterium or hydrogen fusion at room temperature.

5. Mizuno's Five-Peak Elemental Spectrum From Pd/D LENR Research

In 1998, Tadahiko Mizuno, a Japanese physicist and director of Hydrogen Engineering Application & Development Corporation, published data from heavy-hydrogen LENR experiments that displayed a similar, distinct five-peak curve. Larsen saw that the Mizuno heavy-hydrogen and Miley light-hydrogen spectra were similar, and he concluded, based on that, that LENRs with heavy hydrogen as well as light hydrogen were caused by the same underlying mechanism. Mizuno's heavy-hydrogen transmutation results were also inconsistent with the hypothesis of "cold fusion." The similarity of the spectra also indicated that the idea, which came later from people like McKubre, that there were "two separate branches" of LENR, one with heavy hydrogen and the other with light hydrogen, was wrong. The similarity of these spectra, each based on a multitude of data points, indicated that there was no such thing as two branches. The concept of two branches was an artificial designation.

[Cold fusion proponents either did not know about the similar spectra or failed to recognize that it meant that light- and heavy-hydrogen LENRs were caused by the same processes. Regardless, they knew for certain that heavy-element transmutations could not be caused by light-element fusion, so they speculated that light-hydrogen LENRs and heavy-element transmutations were something else, not fusion.]

6. McKubre's Temporal (But Not Quantitative) Relationship Between Helium-4 and Excess Heat

In 1998, McKubre performed a meticulous deuterium gas-phase, activated carbon and palladium-black experiment. It showed an unambiguous rise of helium-4 that occurred simultaneously with a calorimetrically well-measured signal of excess heat. I think that this is still the best experimental evidence that shows the relationship of nuclear heat to nuclear product. There was only one

problem: The relationship, the quantitative relationship between the heat and helium-4, was inconsistent with the hypothesis of "cold fusion."

7. Iwamura's Gas Permeation Transmutation Experiments

This research emerged from 1998 to 2003. Yasuhiro Iwamura, a [nuclear engineer] with Mitsubishi Heavy Industries in Japan, began to report meticulously performed experimental work that showed extraordinary evidence of heavy-element LENR transmutations with heavy-hydrogen LENR work. To give you some perspective, one of the observers of the field reported in 2003 that Iwamura's work "seem destined to affect the course of solid state and nuclear science." As predicted, heavy-element LENR transmutation research was taken more seriously in the field at this time. Iwamura's heavy-hydrogen transmutation results were also inconsistent with the hypothesis of "cold fusion."

8. McKubre's Claim of Proof of Cold Fusion

In 2000, McKubre presented an experimental claim, experiment #M4, that produced proof of "cold fusion." His claim became known among "cold fusion" proponents as proof that deuterons could overcome the Coulomb barrier at room temperature. This matter came to light 10 years later. On Jan. 29, 2010, *New Energy Times* published an exhaustive and detailed investigation of McKubre's M4 claims. *New Energy Times* found that M4 was actually performed in 1994. *New Energy Times* also found that, starting with McKubre's presentation in 2000, McKubre began to retroactively manipulate and fabricate data that was associated with M4. He did so without presenting scientific support and without disclosing his changes to the public or his sponsor, the Electric Power Research Institute. *New Energy Times* provided McKubre with multiple opportunities to respond to the investigation. He did not respond.

9. Letts and Cravens' Laser Triggering Reveals Surface Plasmons

In the summer of 2003, Dennis Letts and Dennis Cravens, independent LENR researchers, performed experiments using low-power laser triggering. Their work tipped off Larsen and, independently, a researcher named Vittorio Violante, an Italian experimentalist, that surface plasmon polaritons were a key aspect of LENR.

10. Cold Fusion Proponents Pitch Department of Energy

In 2004, McKubre, Hagelstein, David J. Nagel, Talbot Chubb, Randy Hekman, Graham Hübler and Michael Melich proposed that the Department of Energy fund "cold fusion" research. The proposal referenced the M4 data and stated that "this value remains the most accurately determined in this field." There is no evidence that any of the co-authors was aware at the time that the data for M4 had been manipulated and fabricated.

The proposers failed to present the heavy-element transmutation work of Iwamura, Miley or Mizuno to the Department of Energy. [Hekman has since changed his perspective on LENRs. He has "lost confidence that the mechanism

is explained by either fission or fusion, but [he is] much more convinced that the Widom-Larsen theory better explains the phenomena."}]

The second look by the Department of Energy into "cold fusion" brought the subject into wider awareness, but the proposers' work was not sufficient to convince the Department of Energy to fund "cold fusion" research. There is no evidence that the Department of Energy was aware at the time that the data for M4 had been manipulated and fabricated.

11. Widom and Larsen Publish Ultra-Low-Momentum Neutron Theory of LENRs

On May 2, 2005, Larsen, with the help of Allan Widom, a condensed-matter physicist at Northeastern University, published a pre-print of their seminal paper "Ultra-Low-Momentum Neutron-Catalyzed Nuclear Reactions on Metallic Hydride Surfaces." Before their publication, at least half a dozen researchers had preceded Widom and Larsen with ideas of how weak interactions and neutron-capture processes could explain LENRs. But all of the other proposed ideas were either vague and incomplete or nobody had a complete set of beginning-to-end processes [that could explain LENRs] until Widom and Larsen presented theirs. Larsen was the first to see the big picture. He saw the relationship with solar abundances, and he saw the relationships among the diverse data. He worked with Widom, then later also with Yogendra Srivasatva, to develop the theory more fully.

12. Federal Government Begins to Take LENR Seriously

On Dec. 12 and 13, 2006, the Defense Threat Reduction Agency sponsored a meeting on LENR. Widom and Larsen were the only LENR theorists to speak there. The subsequent reception of the Widom-Larsen theory throughout the federal government was strong. The most hostile and vocal opponent of the field up to that date, Robert Park, a former spokesman for the American Physical Society, also spoke at the meeting and conceded that the new field represented legitimate science. Park's concession also appeared in *Chemistry World* a few months later. The LENR presentations given at this DTRA meeting, based on my observations, appeared to trigger a new, although quiet, wave of interest by the federal government, which could partially explain your call today.

13. SPAWAR Develops First Repeatable Experiment

In 2007, researchers at SPAWAR Pacific, in San Diego, California, developed a LENR experiment using a method of depositing palladium, atom by atom, in an electrolytic solution, rather than using the "classic Pons-Fleischmann" method of using a solid palladium cathode, as many of the earlier researchers had done. The SPAWAR experiments demonstrated production of high-energy alpha particles and low fluxes of spallation neutrons.

The co-deposition method provided the SPAWAR researchers - and the field - with two firsts: an experiment that appears to be easily repeatable by them and

somewhat reproducible by other labs. Until this point, there was no experiment that anyone could show such control over. The second thing the SPAWAR research did was provide permanent evidence of nuclear reactions recorded on solid-state nuclear track detectors. This stands in contrast to the evidence for excess heat, which is ephemeral: As soon as it's created, it's gone. You can't show it to someone after the fact. [You can show solid-state nuclear track detectors to other people after the fact. As well, a variety of tools can check for heavy-element transmutations after an experiment has been performed.]

14. The War Against LENR

The next time span is from 2007 to now. The recognized American leaders of the LENR field, nearly all of whom had been fighting the battle for recognition of "cold fusion" and fighting for their own personal redemption as a result of sticking their necks out in this field, failed to distinguish and detach the valid LENR experimental research from the theory that deuterons or protons were somehow overcoming the Coulomb barrier at room temperature. They responded to the idea brought forward by newcomers Widom and Larsen with hostility and pathological skepticism. The recognized American leaders of the LENR field also distributed incorrect and negative personal information about Larsen. They also took steps to discredit experimental research that supported the Widom-Larsen theory.

In August 2008, recognized American leaders in the LENR field produced an international conference for LENRs in Washington, D.C., and systematically marginalized heavy-element LENR transmutation research from the conference. Around this time, some of these American participants also coordinated with the Naval Research Laboratory in efforts that appeared intended to discredit heavy-element LENR transmutation research.

On Aug. 20, 2008, at the American Chemical Society national meeting, I presented, for the first time publicly, a comprehensive meta-analysis of experimental phenomena observed in LENRs that individually and collectively disproved the hypothesis of "cold fusion." [My presentation was unchallenged by people in the audience after I spoke, and it has remained unchallenged in the scientific arena. When I spoke at the ACS meeting, two prominent "cold fusion" theorists, Akito Takahashi and Xing Zhong Li, were present for my talk. Peter Hagelstein showed up late and missed my talk, and Michael McKubre failed to appear. He canceled his scheduled talk the week before the conference.]

In 2009, some of the American participants in the field coordinated with the Defense Intelligence Agency and systematically marginalized the theoretical work of Widom and Larsen. The DIA coordinator for the project, Beverly Barnhart, said to me in a phone call after the report published, "How could there be anything to Widom-Larsen, when everybody - I mean everybody I spoke to - told me that it was wrong?" Barnhart did not attempt to contact Larsen or Widom.

Robert Park's public concession was selectively ignored by the American participants in the field, even by David Nagel, who also attended the 2006 DTRA meeting at which Park conceded. Why was Park's concession ignored? Because Park [was able to see the distinction. He] dismissed the idea of "cold fusion," but he supported the idea of LENR.

Thus, for the second time in "cold fusion" history, scientists worked collaboratively and unprofessionally to interfere with progress and to block a new idea: the idea of weak interactions and neutron-capture process. The Widom-Larsen theory - right, wrong or perhaps somewhere in between - threatened the prevailing idea, since 1989, of deuterons overcoming the Coulomb barrier at room temperature, "cold fusion."

Part II: EMERGENCE QUESTIONS [REDACTED]

We'd like to ask you six questions (each with 2 parts) that we are using to test performer systems. For each question we would like you to

- Share with us broadly your thinking about each question
- Answer YES, NO, or DON'T KNOW over six time periods for "part b" of each of the questions

Q1a - [REDACTED] Can you help us understand how a community of practice evolved over time among scientists researching LENR? A 'CoP' typically refers to the coalescing of investigators to research, develop, apply, or promote a domain or to otherwise contribute to the body of knowledge about a domain.

A1a - Krivit: In short, it involves several factors, including sub-specialties of research, complementary theoretical explorations, national versus localized collegiate relationships, business partnerships and funding opportunities.

A meeting place and opportunity for interchange has existed primarily through the field's various specialized conferences.

Q1b - [REDACTED] Did a LENR community of practice exist during each of the six time periods?

A1b - Krivit: [Yes, a community of practice existed from 1989 onward.]

Q2a - [REDACTED] Can you help us understand whether there were debates in the scientific community as LENR evolved as a science? And if so, the nature/subject of those debates?

"Debates" typically encompass (a) conflicting viewpoints on issues, (b) open and unresolved questions regarding approaches, methods, results, etc., or (c) conflicting viewpoints on the fundamental merits, usefulness, novelty, etc., of the domain.

Such debates may arise not only internal to the community of investigators who are contributing to a domain, but also external to it, e.g., within prevailing communities whose paradigms are challenged by the domain.

A2a - Krivit: There are three phases.

The first phase is 1989-1993. The initial problem is that nuclear experts had never known of any kind of nuclear energy that did not produce commensurate levels of dangerous radioactive emissions. Few people at this time were aware of weak interactions, let alone the possibility that weak interactions could lead to high reaction rates. So, for most scientists, the claimed results were inexplicable according to what they knew at the time.

Nuclear physicists couldn't conceive of a way that deuterons could penetrate or overcome the Coulomb barrier at room temperature. Some people, like Hagelstein, tried to come up with explanations for this, but they all relied on imaginary physics.

From the experimental side, the field suffered early on from "experimenter's regress," which is explained by author Harry Collins: "When the normal criterion - successful outcome - is not available, scientists disagree about which experiments are competently done."

When the field emerged in 1989, there was a lot of initial opposition. Many people in science academia responded to it unprofessionally and with outright hostility. Some of these opponents lacked the courage to consider something so radically new and potentially disruptive; some lacked imagination. On a psychological level, it threatened their fundamental understanding of physics. On a practical level, it threatened their stature and funding. It threatened to make their textbooks and coursework obsolete. There were also some other opponents who were researchers who attempted to replicate the initial claim but failed and then may have felt embarrassed and frustrated and then became angry.

The second phase is 1993-2004. During this period, the field was largely neglected by mainstream science and mainstream media. To a great degree, although the researchers would certainly have liked to receive more financial support, I think they were happy to be left alone. However, significant misinformation which occurred from the onset of the field was never corrected in the broader public awareness [during this time]. But that started changing as of [the publication of] Charles Beaudette's *Excess Heat & Why Cold Fusion Research Prevailed* in 2000 and Steven B. Krivit and Nadine Winocur's *The*

Rebirth of Cold Fusion in 2004. These books began to help correct some of the historical record.

The third phase starts in 2005, when Widom and Larsen came out with their theory, and has continued to the present. During this phase, the field has been experiencing bitter factionalism between two groups. One group is people who maintain their belief in "cold fusion" or, if not [in name], at least the idea of deuterons somehow overcoming the Coulomb barrier. Sometimes, they seem to have loyalty only to the name of "cold fusion." [Often, many of these proponents defend either the concept or the term "cold fusion," much like adherents to a religion defend their right to their beliefs.]

The other group of people, whom you don't hear much about, recognizes low-energy nuclear reactions as real, but they don't presume or assert that it's a fusion mechanism.

Q2a.1 - [REDACTED] So did the debates start in 1989 with the dawn of the field? [question added during interview]

A2a.1 - Krivit: There are two phases of debate. The first debate is about [whether the entire set of phenomena was real]; this began in 1989. The second debate is about whether it [was real but not] fusion; that started in 2005.

Let me add one more thing. That [second] debate has been suppressed, to the point that you're not clearly aware of it.

Q2a.2 - [REDACTED] What we are looking for are responses to these questions from the perspective of LENR, condensed matter nuclear science, cold fusion as a single field. [question added during interview]

A2a.2 - Krivit: You seem to think that there is unification in the field. This is wrong, but it's not your fault. There is a myth that has been portrayed, and at one time, I was a participant in propagating this myth. There is no unification of this field any longer.

There was up until 2005, when this serious idea came back: the idea of weak interactions. This doesn't have to do just with Widom-Larsen. They may have the best [approach]. The idea has to do with the concept of weak interactions or neutron-capture processes, whether it's Widom-Larsen or somebody else, but they broke the field into two different domains.

Q2a.3 - [REDACTED] So what you're saying is that, starting in 2005, we have another thread. [question added during interview]

A2a.3 - Krivit: Yes, you're getting it. There was a very significant distinction and fissure that occurred in 2005.

Q2b - [REDACTED] Were there debates within the scientific community about LENR during each of the six time periods?

A2b - Krivit: [Yes, there were debates from 1989 on.]

Q3a - [REDACTED] Can you help us understand what kind of infrastructure was required to conduct LENR research?

“Infrastructure” typically refers to equipment, computational resources, access to hardware, software or well-defined algorithms, etc., that are required to effectively explore a line of scientific or technical inquiry.

“Readily available” typically means that few, if any, obstacles exist that prevent researchers from acquiring and properly employing said infrastructure.

A3a - Krivit: Chemical lab, gas-handling apparatus, standard electrochemistry hardware including potentiostat, data acquisition hardware and software, data collection and presentation software, a variety of chemicals, heavy water, normal water, light and heavy hydrogen gas, platinum group metals, nickel, other metals, electrolytes, detection and measurement devices (neutron, x-ray, alpha, gamma, helium, tritium), calorimetry systems (isoperibolic, Seebeck, mass flow), glassware, access to metal shop, access to reactors for neutron activation analysis, variety of microscopes and spectrometers, thin-film fabrication devices, ultra-high vacuum pumps, nanoscale fabrication tools, beam devices, furnaces, technical reference library.

Q3b - [REDACTED] Was the infrastructure needed to conduct LENR research readily available during the six time periods?

A3b - Krivit: It is difficult to generalize, but assuming the case of well-equipped university or government laboratories, most of the infrastructure existed during most of the time periods. However, nanotech fabrication tools and processes may not have existed during the onset of the field.

Q4a - [REDACTED] Can you help us understand how a demonstration of a practical application of LENR was or was not achieved -- how LENR research has moved from a concept to a practice -- from a concept about what might be possible to a demonstration of feasibility?

A “demonstration of practical application” typically means that a domain has been tangibly realized (implemented, formed, built, etc.) and shown to contribute to solving a problem or satisfying an unmet need.

A4a - Krivit: There are no existing demonstrations of LENR as a practical demonstration or application. The attempts when these were not achieved are too numerous to count.

Q4b - [REDACTED] Was there a demonstration of a practical (vs. theoretical) application of your domain during these six time periods?

A4b - Krivit: None.

Q5a - [REDACTED] While the previous question was broad, this question narrows, focusing ONLY on commercial applications. Can you help us understand how commercialization of the domain occurred – if this is indeed the case?

A “demonstration of commercial application” typically means that there is a product offered for sale in the commercial marketplace, or industry is supporting R&D to enable the manufacture and sale of a commercial product.

A5a - Krivit: There are no existing demonstrations of LENR as a commercial application. The attempts when these were not achieved are too numerous to count.

Q5b - [REDACTED] Was there a demonstration of a commercial application of your domain during these six time periods?

A5b - Krivit: None.

Q6a - [REDACTED] At the dawn of your domain, was it a completely new innovation, or was it replacing a previous generation of science? Was there an established science that it was an alternative to, or was it novel?

An “alternative to an established science” is typically something relatively new which promises to replace or supplant a known and accepted/applied idea, tool, approach, solution, etc.

A6a - Krivit: It was, effectively, the dawn of a new domain, both scientifically and potentially, hopefully, practically. However, glimpses of it had surfaced as far back as the 1920s. LENR is poised to provide a completely new process, fuel use and form factor for energy and material science applications.

Some people may argue that LENR was poised to replace thermonuclear fusion, but that domain is neither practical nor directly related. Some people may argue that LENR was poised to replace nuclear fission. If it does, it may follow a model similar to how microcomputers replaced many mainframe computers.

Q6b - [REDACTED]: Was your domain considered an alternative to an established technology during these six time periods?

A6b - Krivit: No

Part III: CONCLUDING QUESTIONS

Q1 - Were there any publications in languages other than English that significantly contributed to the evolution of your domain?

A1 - Krivit: *Biological Transmutations*, by Louis C. Kervran, translated by Crosby Lockwood \$24.95, Beekman Books, Inc., ISBN 0846401959, (June 1998)

Nuclear Transmutation: The Reality of Cold Fusion, by Tadahiko Mizuno \$12.00, Infinite Energy Press, Concord, N.H., ISBN 1-892925-00-1, (Dec. 1998)

Q2 - Do you have any suggestions of new domains that are currently emerging or of negative examples of emergence -- lines of inquiry that would be considered "false starts" in that the "domains" are unlikely to emerge?

A2 - Krivit: No.

Postscript: Unicorns Versus Horses; Cold Fusion Versus LENR (Krivit)

In the last few years, despite the fact that, or perhaps because, my 2008 ACS presentation is clear and explicit about the distinction between "cold fusion" and LENR, many "cold fusion" proponents have spent an inordinate amount of time muddying the waters. Even though many of them are technically capable of following the scientific distinctions, they still behave as though the loss of the term "cold fusion" represents a loss of their dream and of recognition of their substantial participation in a potentially new energy paradigm. For unknown reasons, many of the people who have been fighting the "War Against Cold Fusion" appear to be locked into a siege mentality and have been unable to shift their thinking as better facts and understanding of the field have emerged.

It therefore seems worthwhile to offer an analogy to help nonspecialists see the distinction between "cold fusion" and LENR.

The concept of the unicorn comes from European folklore. In general, it closely resembles a horse. It looks like a horse, walks like a horse and, ahem, talks like a horse. But the unicorn has a single horn that is said to have magical powers. And one more thing: It is a mythical animal.

The concept of "cold fusion" developed out of the research of Stanley Pons and Martin Fleischmann and the community of researchers they inspired. But much like Columbus when he headed east from Spain and then thought he found a

new way to India, Pons, Fleischmann and their followers were mistaken, but only partially.

The amount of heat generated from the Pons-Fleischmann discovery resembled a nuclear reaction. The tritium and helium produced were characteristic of a nuclear reaction. A research community developed as a result of the Pons-Fleischmann discovery. Central to this community is a utopian concept and hope for a world fueled by a new kind of clean nuclear reaction.

But there was a subtle but significant difference with the underlying physical mechanism: It was based primarily on weak interactions and neutron-capture processes, not fusion. Despite the growing body of experimental evidence that revealed this distinction, and despite all the attempts that Pons and Fleischmann's followers made to try to make LENR look like fusion, no amount of varnish could change the fact: "Cold fusion" too, was a myth. But LENR, which does not presume or assert a fusion mechanism, is real.



(b)(3)

[Redacted]

did you see this?

16 messages

(b)(3) [Redacted] Fri, Dec 9, 2011 at 12:04 AM
To: Peter T Highnam [Redacted]
<http://newenergytimes.com/v2/government/Intel/Krivot-LENR-Interview-IARPA.shtml>

(b)(3), (b)(6) [Redacted] Fri, Dec 9, 2011 at 6:14 AM
To: [Redacted]
I haven't read it yet, but thought you'd like to see this...

(b)(3) [Redacted]
IARPA Program Manager
[Redacted] (assisted)
[Redacted] (direct)
[Redacted] (mobile)

(b)(3) ----- Original Message -----
From: [Redacted]
To: Peter T Highnam [Redacted]
Sent: Fri Dec 09 05:04:15 2011
Subject: did you see this?
<http://newenergytimes.com/v2/government/Intel/Krivot-LENR-Interview-IARPA.shtml>

(b)(3) [Redacted] Fri, Dec 9, 2011 at 6:15 AM
To: [Redacted]
FYI, meant to CC you on the last message.

(b)(3) [Redacted]
IARPA Program Manager
[Redacted] (assisted)
[Redacted] (direct)
[Redacted] (mobile)

----- Original Message -----

[Quoted text hidden]

(b)(3),
(b)(6)

Fri, Dec 9, 2011 at 7:39 AM

To: [redacted]
Cc: [redacted]

How should we handle this? He sent his "transcript" of the interview to me as well. Obviously it is not a transcript. I sent him an email yesterday that both of you were cced on attempting to close off all communication.

[redacted]
[Quoted text hidden]

(b)(3),
(b)(6)

Fri, Dec 9, 2011 at 7:40 AM

To: [redacted]
Cc: [redacted]

BTW -- I have already received my first 2 spam emails related to cold fusion research as a result of this. It's a nuisance -- but the real concern is fall-out for IARPA. What do you need me to do?

[Quoted text hidden]

(b)(3)

Fri, Dec 9, 2011 at 7:59 AM

Reply-To: [redacted]
To: [redacted]

FYI

(b)(3)

IARPA Program Manager

[redacted] (assisted)

[redacted] (direct)

[redacted] (mobile)

[http://www.iarpa.gov/manager_\[redacted\].html](http://www.iarpa.gov/manager_[redacted].html)

(b)(3)

From: [redacted]
To: "Peter T Highnam"
[redacted]

Sent: Friday, December 9, 2011 12:04:15 AM

Subject: did you see this?

<http://newenergytimes.com/v2/government/Intel/Krivit-LENR-Interview-IARPA.shtml>

Fri, Dec 9, 2011 at 8:05 AM

(b)(3)

To: [Redacted]

I personally find disturbing that the author "received a call from MITRE." Do you know anything about that? I would be prepared to answer that question.

Regards,

[Redacted]

(b)(3)

Deputy Office Director, IA
IARPA www.iarpa.gov

----- Original Message -----

(b)(3)

From: [Redacted]
To: [Redacted]
Sent: Friday, December 9, 2011 7:59:30 AM
Subject: Fwd: did you see this?

FYI

(b)(3)

IARPA Program Manager
[Redacted] (assisted)
[Redacted] (direct)
[Redacted] (mobile)
[http://www.iarpa.gov/manager/\[Redacted\].html](http://www.iarpa.gov/manager/[Redacted].html)

[Quoted text hidden]

Fri, Dec 9, 2011 at 8:07 AM

(b)(3),
(b)(6)

Reply-To: [Redacted]
To: [Redacted]
Cc: [Redacted]

[Redacted]

I knew this would happen at some time. I didn't expect the "transcript" twist, but figured we would get some public commentary. I am not stressed, but there is a few things I could use this morning.

- (a) LENR / Cold Fusion SME list (contact and answer) and selection criteria
- (b) Documentation regarding why Krivit was selected
- (c) Any comments on the voracity of the "transcript" would be helpful, too.

Does this make sense? Is this info hard to bring together? Is there anything else you would suggest?

This info would be very helpful and would help prepare me for Q&A with the director, et al. **The sooner I can get this, the better.**

Thanks,

[REDACTED]

(b)(3)

[REDACTED]

IARPA Program Manager

[REDACTED] (assisted)

[REDACTED] (direct)

[REDACTED] (mobile)

[http://www.iarpa.gov/manager/\[REDACTED\].html](http://www.iarpa.gov/manager/[REDACTED].html)

From: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Sent: Friday, December 9, 2011 7:39:02 AM
Subject: RE: did you see this?

(b)(3),
(b)(6)

[Quoted text hidden]

Fri, Dec 9, 2011 at 8:08 AM

To: [REDACTED]
Cc: [REDACTED]

(b)(3),
(b)(6)

Will do immediately. Question – what does (a) mean >??? Does this mean you want the entire list of people contacted for LENR and then an identification of those who actually served as SMEs?

From: [REDACTED]
Sent: Friday, December 09, 2011 8:07 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: did you see this?

(b)(3),
(b)(6)

[Quoted text hidden]

Fri, Dec 9, 2011 at 8:15 AM

Reply-To: [REDACTED]
To: [REDACTED]
Cc: [REDACTED]

(b)(3),
(b)(6)

[REDACTED]

Yes AND the criteria used to generate this list.

Also, could you document the time and form of communciation with Krivit (e.g., x/xx/2011 -- initial email inviting particiatpion; xx/xx/2011 -- and so forth)? If you can produce a pdf with all the emails in it, than this would be helpful.

Lastly, when will you have your notes from the meeting ready? It might be good to have these, also.

Thanks,

[Redacted]

(b)(3)

[Redacted]

IARPA Program Manager

[Redacted] (assisted)

[Redacted] (direct)

[Redacted] (mobile)

[http://www.iarpa.gov/manager/\[Redacted\].html](http://www.iarpa.gov/manager/[Redacted].html)

From: [Redacted]
To: [Redacted]
Cc: [Redacted]

Sent: Friday, December 9, 2011 8:08:58 AM

[Quoted text hidden]

(b)(3),
(b)(6)

Fri, Dec 9, 2011 at 8:16 AM

To: [Redacted]
Cc: [Redacted]

I have our notes from the meeting in draft. Will do.

From: [Redacted]
Sent: Friday, December 09, 2011 8:15 AM
To: [Redacted]

[Quoted text hidden]

(b)(3),
(b)(6)

[Quoted text hidden]

Fri, Dec 9, 2011 at 10:57 AM

To: [Redacted]
Cc: [Redacted]

First I am quickly sending you a PDF that includes a response to most of your questions. I have also included a draft summary of the interview – but frankly we backburnered this as we do not plan to include this interview in the case study.

I will now compile all of his emails and send that to you.

Regards,
[Redacted]

(b)(3),
(b)(6)

From: [Redacted]
Sent: Friday, December 09, 2011 8:15 AM
To: [Redacted]

[Quoted text hidden]

[Quoted text hidden]

2 attachments

 **Documentation on Cold Fusion SME Elicitation.docx**
24K

 **Krivot interview LENR 12-1-11.docx**
81K

Fri, Dec 9, 2011 at 11:34 AM

Reply-To: [redacted]

To: [redacted]

Cc: [redacted]

(b)(3),
(b)(6)

Thank you. This is very helpful.

[redacted]

(b)(3)

[redacted]

IARPA Program Manager

[redacted] (assisted)

[redacted] (direct)

[redacted] (mobile)

[http://www.iarpa.gov/manager/\[redacted\].html](http://www.iarpa.gov/manager/[redacted].html)

From: [redacted]

To: [redacted]

Cc: [redacted]

(b)(3),
(b)(6)

Sent: Friday, December 9, 2011 10:57:10 AM

[Quoted text hidden]

Fri, Dec 9, 2011 at 11:36 AM

Reply-To: [redacted]

To: Peter T Highnam [redacted]

Peter, [redacted]

(b)(3),
(b)(6)

I expected something like this would eventually happen during the case study development process. I do want to pass along to you [redacted] notes from the interview and a documentation of the elicitation process. [redacted] is pulling

together all the emails into a pdf and I will send those to you, also.

In short, this guy turned out to be a lot less useful to the effort than we had hoped. For the record, his positing is not entirely accurate (Avra's notes identify particular places). However, he was not under contract, nor was he required not to talk about this (which would severely limit our work and would not be a good idea in my opinion). Negative examples of emergence will run the highest risk of this type of event in the future, in my opinion.

I have not engaged [REDACTED] on this topic. Please advise if you want me to do anything.

[REDACTED]

[REDACTED]

IARPA Program Manager

[REDACTED] (assisted)

[REDACTED] (direct)

[REDACTED] (mobile)

(b)(3)

[http://www.iarpa.gov/manager/\[REDACTED\].html](http://www.iarpa.gov/manager/[REDACTED].html)

----- Original Message -----

From: [REDACTED]

To: Peter T Highnam [REDACTED]

[REDACTED]

Sent: Fri Dec 09 05:04:15 2011

Subject: did you see this?

<http://newenergytimes.com/v2/government/Intel/Krivot-LENR-Interview-IARPA.shtml>

2 attachments

 **Documentation on Cold Fusion SME Elicitation.docx**
24K

 **Krivot interview LENR 12-1-11.docx**
81K

Fri, Dec 9, 2011 at 12:08 PM

To: [Redacted]
Cc: [Redacted]

(b)(3),
(b)(6)

[Redacted] – here is a txt document that captures email communication between [Redacted] and Krivot.

I have to leave the office shortly for a personal appointment. I can be reached on [Redacted] if you need me. I will respond to email again this evening if you need additional documentation.

Regards,

[Redacted]

From: [Redacted]

Sent: Friday, December 09, 2011 11:35 AM

[Quoted text hidden]

[Quoted text hidden]

 **Email communication with Steve Krivot 11.docx**
33K

Fri, Dec 9, 2011 at 12:17 PM

(b)(3)

Reply-To: [Redacted]
To: Peter T Highnam [Redacted]

Peter, [Redacted]

Should it be needed or helpful... here copy of all the email exchanges made between Steven Krivot and the MITRE team. (You are under no obligating to read this document.)

ODNI - IARPA Mail - did you see this?

<https://mail.google.com/mail/u/0/?ui=2&ik=92c80f9040&view...>

[REDACTED]

(b)(3)

[REDACTED]

IARPA Program Manager

[REDACTED]

(assisted)

[REDACTED]

(direct)

[REDACTED]

(mobile)

[http://www.iarpa.gov/manager_\[REDACTED\].html](http://www.iarpa.gov/manager_[REDACTED].html)



Email communication with Steve Krivit 11.docx
33K



(b)(3)

[Redacted]

Research on S&T Emergence: LENR case study

2 messages

Steven Krivit <stevek@newenergytimes.com>

Wed, Dec 7, 2011 at 10:52 PM

(b)(3)

To: [Redacted]

(b)(6)

Hi [Redacted]

Enclosed is the updated transcript of my responses to your questions. Would you kindly acknowledge receipt?

Steven

Steven B. Krivit
Senior Editor, New Energy Times
Executive Director, New Energy Institute Inc.
369-B Third Street | Suite 556 | San Rafael, California | USA 94901
T 310.470.8189 | M 310.721.5919 | F 213.226.4274
www.newenergytimes.com

Original reporting on leading-edge energy research and technologies

MITRE - IARPA - Krivit Updated Response.pdf
58K

(b)(6)

[Redacted]

Thu, Dec 8, 2011 at 5:51 AM

To: Steven Krivit <stevek@newenergytimes.com>

(b)(3)

Cc: [Redacted]

Mr. Krivit,

Thank you for participating in the interview on the emergence and evolution of LENR as a science and for the follow-on materials you sent. We have moved to the next phase of the study. We have all the information we need from you, bringing our interactions to a conclusion.

Thank you for your time.

Regards,

(b)(6)

[Redacted]

From: Steven Krivit [mailto:stevek@newenergytimes.com]

Sent: Wednesday, December 07, 2011 10:52 PM

(b)(3)

To: [Redacted] (b)(6)

Subject: Research on S&T Emergence: LENR case study

(b)(6)

Hi [Redacted],

Enclosed is the updated transcript of my responses to your questions.
Would you kindly acknowledge receipt?

Steven

Steven B. Krivit
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