THIRD CPSR CRYPTOGRAPHY AND PRIVACY CONFERENCE

June 7, 1993

Carnegie Endowment for International Peace
2400 N. Street, NW
Washington, DC

8:30 Coffee

9:00 Welcome and Introductions

9:30 Introduction to Cryptography
David Kahn, a noted historian of cryptography, will provide an overview of cryptography and discuss the current trend toward use in everyday activities.

10:00 Government Cryptography Policy
In the past several years, law enforcement and intelligence agencies have attempted to restrict the public development and implementation of cryptography. This panel will discuss recent developments including the Clipper Proposal, the Digital Signature Standard and the roles of NIST and the NSA under the Computer Security Act of 1987.

Moderator: Rick Weingarten, Executive Director, Computer Research Associates

Participants: John Podesta, Staff Secretary, The White House
David Sobel, Computer Professionals for Social Responsibility
Ray Kammer, Acting Director, National Institute for Standards and Technology
Dr. Steven Bryen, Secure Communications Technology

11:15 Break

11:30 The Digital Telephony Proposal
In 1992 the Federal Bureau of Investigation introduced a proposal to require that telecommunications manufacturers and service providers redesign their systems to facilitate wiretapping. This panel will discuss the implications of that proposal on privacy, security and the telecommunications network.

Moderator: David Flaherty, Wilson Center/University of Western Ontario

Participants: Janlori Goldman, Privacy and Technology Project, ACLU
James K. Kallstrom, Federal Bureau of Investigation
Dr. Dorothy Denning, Georgetown University
William Murray, Deloitte and Touche

12:30 Lunch (provided)

1:15   Debate - Encryption Policy, Privacy and Government Secrecy

Moderator: Professor Lance Hoffman, George Washington University

Participants: Whitfield Diffie, Sun Microsystems
                Alan R. McDonald, Federal Bureau of Investigation

2:00   Export Controls
        Currently, federal regulations restrict products that contain encryption from export. This panel will discuss the problems that these restrictions present and how they affect the use of cryptography within the United States.

Moderator: Roszel Thomsen, McKenney, Thomsen & Burke

Participants: Ilene Rosenthal, Software Publishers Association
               Allan Suchinsky, Office of Defense Trade Controls, State Department
               David Peyton, Information Technology Association of America

3:00   Cryptography in Everyday Use
        This panel will look at the present and future applications of public key cryptography including Digital Cash, Privacy-Enhanced Mail, and Pretty Good Privacy.

Moderator: ~~Mikki Barry~~ *Wayne Matson*, Intercon Systems

Presenters: Phil Zimmerman, Pretty Good Privacy
               Steve Crocker, Trusted Information Systems
               David Chaum, DigiCash

4:00-6:00 Reception at Carnegie

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Name	Organization
John Adams	IEEE Spectrum
Charlotte Adams	FCW
Michael Autrey	Privacy Times
Stewart Baker	NSA
Brian Baker	CUA Law School
James Bamford	ABC World News Tonight
David Banisar	CPSR
Mikki Barry	Intercon Systems
Jerry Berman	Electronic Frontier Foundation
Jim Bidzos	RSA
Denis Bieber	SecurTech
Jane Bortnick	Congressional Research Service
Martina Bradford	AT&T
Clint Brooks	NSA
Reese Brown	Jnl of Intel. and Counter-Intel.
Steven Bryen	SecurTech
David Burnham	TRAC
Jean Camp	IEEE
Karen Casser	
James Chandler	GWU
Dan Charles	NPR
David Chaum	DigiCash
John Cohen	House Judiciary Committee
Sarah Comley	
Dan Cook	Department of State
Steven Crocker	TIS
Colin Crowe	House Telecomm
Jim Dempsey	House Judiciary Commitee
Dorothy Denning	Georgetown University
Whitfield Diffie	Sun Microsystems
Mario Einaudi	CPSR
Woody Evans	US West
David Farber	University of Pennsylvania
Addison Fischer	Fischer International
David Flaherty	Wilson Center
Greg Frazier	House Committee on Intelligence
Bob Gellman	House Govt. Operations Comm
Frank Gilbert	
John Gilmore	Cygnus Support
Sol Glasner	Mitre
Janlori Goldman	ACLU
Harry Goodman	NPR
Tom Guidoboni	

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Name	Organization
Ann Harkins	Senate Judiciary Committee
Evan Hendricks	US Privacy Council
Ezra Herman	BNA
Lance Hoffman	George Washington University
Paul Hyland	CPSR
David Johnson	Wilmer, Cutler & Pickering
David Kahn	Newsday
Jim Kallstrom	FBI
Ray Kammer	NIST
Phil Karn	Qualcomm
Stuart Kern	Department of Treasury
Jack King	BNA Legal Report
Rob Kurz	House Govt. Operations
Steven Levy	MacWorld
Herb Lin	National Acadamy of Sciences
Steve Lipner	Mitre
Wayne Madsen	Computer Sciences Corp
Fred Mailman	HP
John Markoff	NY Times
Kate Martin	CNSS/ACLU
Alan McDonald	FBI
Kate McGee	Oracle
John McMullen	Newsbytes
Lynn McNulty	NIST
Brock Meeks	Communications Daily
Ken Mendelson	House Judiciary Committee
Ellen Messmer	Network World
John Mintz	Washington Post
William Murray	Deloite and Touche
Mike Nelson	OSTP
Juan Osuna	CRA
Bill Pauli	Apple Computer
Beverly Peterson	GAO
David Y. Peyton	ITAA
Harold Podell	General Accounting Office/OSI
John Podesta	The White House
Bill Poulis	Apple Computer
Bob Rarog	Digital Equipment Corp.
Mitch Ratcliffe	MacWeek
Harold Relyea	Congressional Research Service
Jeff Richelson	National Security Archive
Ilene Rosenthal	Software Publishers Association
Marc Rotenberg	CPSR

Name	Organization
Debbie Rudolph	IEEE
Cathy Russell	Senate Judiciary Committee
Jeff Schiller	MIT
Wynn Schwartau	Inter*Pak
John Schwartz	Washington Post
Bob Smith	Privacy Journal
Olly Smoot	CBEMA
David Sobel	CPSR
John Sonderman	Department of State
Ross Stapleton	CIA
Gary Stern	ACLU
Allan Suchinsky	Department of State
Roszel Thomsen	McKenney, Thomsen & Burke
Lee Tien	
Peter Wayner	Georgetown University
Rick Weingarten	Computer Research Association
Danny Weitzner	Electronic Frontier Foundation
William Whitehurst	IBM
Steven Wolff	NSF
Phil Zimmermann	Boulder Software Engineering

MEMORANDUM

TO: The Files

FROM: PM/DTC/CED: John Sonderman

SUBJECT: CPSR Cryptography and Privacy Conference
         June 7, 1993, Washington, DC

The first speaker was David Kahn, author of The Codebreakers. He gave an overview of cryptography. He claimed cryptographic growth follows communication growth, as communications expand, cryptography expands. Governments want to prevent the growth of cryptography to maintain order and security. The government feels it must know what is happening in society. The U.S. government is trying to control cryptography through export controls and introduction of the clipper chip. Both help maintain the status quo and prevent privacy from advancing.

Kahn went on to state that privacy is good. A balance must be made between national security and privacy/profit. He claimed if you outlaw good crypto only the outlaws will have good crypto. Further, while the government wants to hold back technology, it can't, the government can only delay technology. He pointed out that even Iran is on the BITNET. Philip Zimmermann then stated trying to stop cryptography was "...like trying to stop the wind."

Zimmermann went on to state that the government was on the "...wrong side of the power curve... it may not be a choice of are we going to live in a world of unbreakable crypto, we can't stop it, we must find a way to adjust." Zimmermann claimed that while outlawing drugs and alcohol may have merits, outlawing cryptography had no basis. He claimed "cryptography doesn't hurt people."

Kahn concluded that there are three government proposals currently: CCEP, DSS, and Clipper. Each alone is innocuous, but all three together are something else.

The next speaker was Ray Kammer, acting director of NIST. He addressed the Clipper initiative. He stated that Clipper is currently delayed do to problems finding key escrow agents and export control issues.

David Sobel, CPSR, spoke next on the Digital Signature Standard and the Computer Security Act of 1987. The act divided government cryptography into two categories, military controlled by NSA, and civilian controlled by NIST. Yet with DSS, of the documents CPSR obtained, 143 were from NIST and 1,138 were NSA. Sobel claimed NSA was running civilian cryptography, and that this was probably true in Clipper as well.

Dr. Steven Bryen, Secure Communications Technology, spoke on Clipper. He claimed Clipper was technology that will compete with his private sector products. Bryen stated that NIST/NSA had not identified the threat that clipper helps diminish. He also claimed Clipper was a domestic solution to an international problem. U.S. firms need secure communication abroad, and foreign governments might not allow Clipper in, or if they did demand the escrow keys.

Zimmermann then added a few comments. He said he was just back for Eurocrypt, and that he had learned that SHA hash algorithm was pretty good. He also stated:
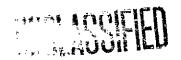
Clipper is voluntary for the moment until the other shoe drops... throw the baby out with the bath water, put the entire population at risk to catch a few criminals
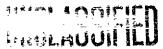
Zimmermann continued stating that "...someday the government may change to a bad government... government has a history of abuse, there is a crying need for cryptography... not to employ cryptographic technology..." helps a police state.

John Gilmore claimed the counter reaction to the clipper proposal could be far more wide spread use of non-clipper encryption. Gilmore questioned how the intel community would interface with the escrow system.

During a break, Stephen Crocker of Trusted Information Systems approached me and expressed his frustration with DTC. He claimed he had sent several letters requesting permission to put his TIS/PEM product on his FTP server. Having received no reply, he went ahead and did it anyway.

Several FBI agents spoke on the merits of the FBI Digital Telephony Proposal. The main criticism expressed by the audience was that the FBI hadn't justified the need for the proposal.

John Podesta of the White House spoke on the Clipper proposal. He claimed clipper addressed three issues: (1) providing a higher level of security, (2) takes advantage of advances in technology, and (3) takes into consideration the needs of law enforcement.

David Peyton, Information Technology Association of America spoke first on export controls. He claimed government policy needed to get in touch with reality. Cryptographic technology was available outside the U.S. and current policy was a "unilateral give away" to _____ Britain and Finland. U.S. vendors are kept at a "policy disadvantage." He wanted the U.S. to decontrol cryptography over the Internet and to adopt the rules agreed to at COCOM. Exports should be allowed to legitimate end users in friendly countries.

Ilene Rosenthal, Software Publisher Association, also addressed foreign availability. She stated that increases in foreign sales meant more customers want cryptographic functions in the software. Sophisticated customers want the best security including DES. Foreign cryptographic products now dominate the market with 143 foreign software manufacturers from 13 countries. She also claimed the Internet made cryptography widely available including PGP which has become a standard in Europe.

Alan Suchinsky and Dan Cook of PM/DTC spoke on current export restrictions. Glenn S. Tenney of Fantasia Systems, Inc. asked how many investigations into export violations for cryptography were ongoing. Suchinsky said he did not know but would find out. During questions about criteria for export Zimmermann added "how about common sense?"

Steve Crocker, of Trusted Information Systems (TIS) spoke on his companies implementation of Privacy Enhanced Mail (PEM). TIS/PEM, as it is called, provides security, confidentiality and authentication. Crocker said he has mounted TIS/PEM on his Internet FTP server for anonymous access, but he had implemented some controls to reduce international distribution. TIS/PEM uses MD2, MD5, DES and RSA.

Philip Zimmermann spoke on his software program called Pretty Good Privacy (PGP). Zimmermann said PGP uses RSA/IDEA for encryption, RSA/MD5 to sign messages, plaintext compression, pass phrases with MD5 form IDEA keys and a grass roots trust model for public key certification. Zimmermann said he plans to change the signature mechanism from MD5 to IDEA after Zimmermann learned of weaknesses in MD5 while attending EUROCRYPT '93.

Zimmermann went on to state that PGP was published in June of 1991. Zimmermann claimed he did not know about the internet himself, but gave it to a friend that posted it onto netnews groups with a USA distribution set. He stated pgp was a "grass roots social phenomenon" and a matter of free speech. He claimed you "can't stop this."
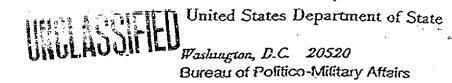
DRAFT

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<u>MEMORANDUM</u>

TO: ODUSD/DTSA/ML - Col. Richey

FROM: PM/DTC/CEB - Clyde G. Bryant, Jr.

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DRAFT

United States Department of State

Washington, D.C. 20520

Bureau of Politico-Military Affairs

CENTER for DEFENSE TRADE

OFFICE OF DEFENSE TRADE CONTROLS
PM/DTC

Only UNCLASSIFIED Information may be transmitted by FAX

TO: S/A Robin Sterzer   USCS   6/10/93
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FROM: John Sonderman   PM/DTC/CEB
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TEL #: 703-875-5650

SUBJECT: CPSR Crypt + Priv. Conf; Please call
to clear on Memo to DTSA

Number of Pages Transmitted in this FAX: 11 incl cover