

UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF ILLINOIS EASTERN DIVISION

UNITED STATES OF AMERICA	Case No. 20 CR 688
v. HYTERA COMMUNICATIONS CORPORATION, LTD.,	Violations: Title 18, United States Code, Sections 1832(a)(3), 1832(a)(4), 1832(a)(5), and 2.
	Judge Tharp Magistrate Judge McShair UNDER SEAL

The SPECIAL NOVEMBER 2019 GRAND JURY charges:

COUNT ONE

- 1. At times material to this Indictment:
- a. Motorola Solutions, Inc. ("Motorola") was a telecommunications company headquartered in Chicago with offices worldwide, including Malaysia.
- b. Among other products, Motorola manufactured and sold digital mobile radios (DMRs) throughout the United States, including the Northern District of Illinois, and internationally.

c. HYTERA COMMUNICATIONS CORPORATION, LTD. ("HYTERA") was a telecommunications company headquartered in Shenzhen, China.

DMR Technology

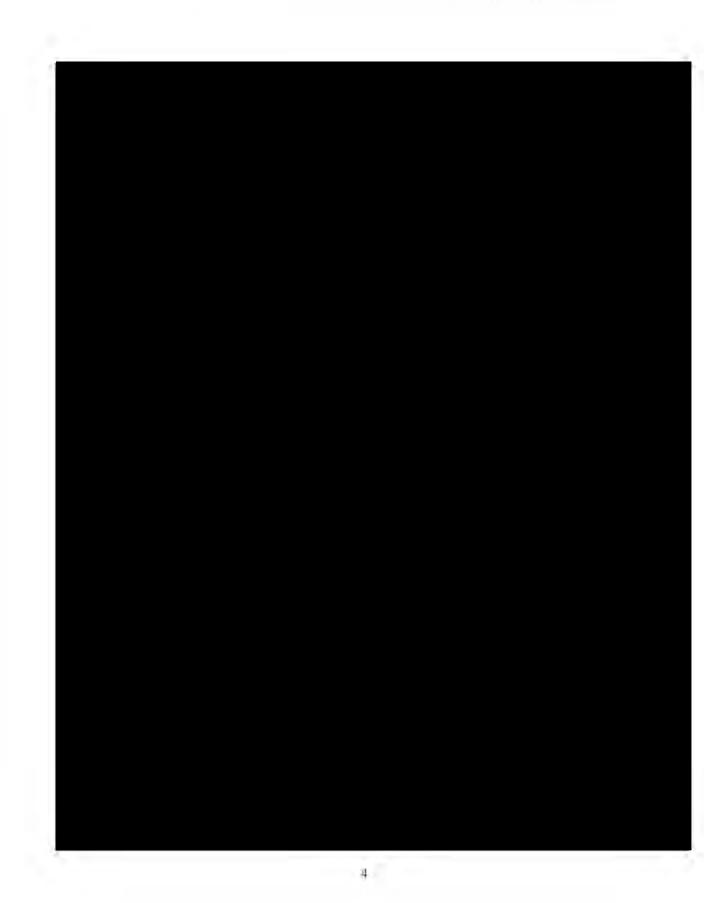
- d. Motorola sold mobile radios and digital mobile radios ("DMRs").
 These radios are at times referred to as "walkie-talkies."
- e. Prior to the implementation of DMR technology, both Motorola and HYTERA marketed and sold mobile radios that relied on analog technology to transmit and receive communications.
- f. In approximately December 2004, the United States Federal Communications Commission ("FCC") announced that, by 2013, mobile radios would be required to operate on a narrower bandwidth, effectively requiring manufacturers to shift from analog to digital technology.
- g. Motorola began developing DMR products to meet the FCC requirements in approximately 2004.
- h. Hundreds of Motorola employees spent years developing the hardware and software solutions to design, manufacture, market, and sell DMRs.
- By 2007, Motorola marketed and sold DMR products in the United States, and elsewhere, including the Northern District of Illinois.
- j. Motorola's DMR products generally were marketed and sold to clients like taxi companies, small police units, hotels, and airports.

k. Beginning in or about May 2010, HYTERA began selling DMR products in the United States, including in the Northern District of Illinois, through its wholly owned U.S. affiliate companies.

The Defendants

(collectively, the "INDIVIDUAL DEFENDANTS" and with HYTERA, the "DEFENDANTS") are former employees of Motorola who worked on Motorola's DMR products and were

recruited to work for HYTERA between 2008 and 2009.



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Motorola Trade Secret Information

- t. As part of its normal business operations, Motorola created and maintained confidential, proprietary and trade secret information related to its DMR products. This information was not generally known to the public.
- u. Motorola's proprietary, confidential and trade secret information included computer software and hardware used in DMRs.
- v. Motorola's proprietary, confidential and trade secret information included documents and specifications related to matters such as the development, testing and operation of its DMRs.

- w. Motorola employees, including computer programmers, developed and modified software for DMRs by writing and altering source code for DMRs.
- x. Motorola DMR trade secrets included, but were not limited to, the following:
 - i. DMR software source code (Trade Secret A);
- Design and implementation of radio software operation architecture in DMR systems (Trade Secret B);
- iii. Benchmarking strategies, methods, and results relating to performance testing of DMR software and hardware components (Trade Secret C);
- iv. Design and implementation of squelch technology in DMR systems (Trade Secret D);
- v. Design and implementation of low tier digital connectivity modules and functions in DMR systems (Trade Secret E);
- vi. Frequency generation, transmitter and circuit design techniques for DMR hardware (Trade Secret F);
- vii. Design and implementation of the DMR signaling layer architecture in DMR systems (Trade Secret G);
- viii. Analog functionality features in DMR systems (Trade Secret H);

- ix. Design and implementation of Extended Control and Management Protocol (XCMP) in DMR systems for radio control, security, authentication and management functionalities (Trade Secret I);
- x. Design and implementation of the physical layer, ARM and DSP frameworks, and radio signaling architecture in Motorola's repeaters (Trade Secret J);
- xi. Design and implementation of digital two-way DMR radio repeater (Trade Secret K);
- xii. Design and implementation of VOX technology in digital two-way DMR radio systems (Trade Secret L);
- xiii. Design and implementation of the hardware abstraction layer in DMR systems (Trade Secret M);
- xiv. Design and implementation of the L1 Timer, Framer,
 Frame Scheduler, and synchronization DMR systems (Trade Secret N); and
- xv. Design and implementation of noise suppression technology in DMR systems (Trade Secret O).

Motorola Used Reasonable Measures to Protect Its Trade Secrets

y. Motorola used a number of reasonable measures to protect its

DMR trade secrets and its confidential proprietary information, including, but not

limited to, the following:

- i. Motorola maintained a facility in Penang, Malaysia which conducted hardware development (the "Penang Hardware Facility").
- ii. Employees permitted to enter the Penang Hardware Facility were issued a unique identification badge and employees entering the Penang Hardware Facility had to scan into the facility and pass security guards who had the authority to check bags upon entry and exit.
- iii. To reach Motorola's research and development department computers in the Penang Hardware Facility, an employee had to swipe an authorized identification badge at three separate access points: the parking lot, the facility's exterior glass door entrance, and an entrance separating the main facility's atrium from its work areas.
- iv. Motorola maintained a second facility in Penang, Malaysia which conducted software development (the "Penang Software Facility").
- v. Employees permitted to enter the Penang Software Facility were issued a unique identification badge. Employees had to scan an authorized identification badge to access elevators for Motorola's floors and had to pass by twenty-four hour a day security guards.
- vi. The Penang Software Facility contained compartmentalized project spaces, which were restricted to employees who worked on teams handling specific projects. These spaces also required scanning an authorized identification badge for access.

- vii. Motorola maintained an internal document database which held Motorola's technical, business, and marketing documents (the "Internal Database").
- viii. In order to access certain documents in Motorola's Internal Database, users had to be granted access by a supervisor.
- ix. To access the Internal Database, employees first had to login into the company network with a unique username and password, and then had to separately log into the document repository with a unique username and password.
- x. Documents within Motorola's Database were restricted by the document owner, who could restrict access by document or by document directory location.
- xi. Requests for documents on the Motorola database were routed through a Motorola server in the Northern District of Illinois. If a request was made for Motorola database documents that were locally "cached," or stored for future electronic requests, the network still performed a "checksum" or verification function to ensure that the document was the most recent version. The "checksum" function was also routed through servers in the Northern District of Illinois.
- xii. To obtain remote access to Motorola's network, an employee needed supervisory approval, a Motorola laptop, and a security token, in addition to the logon and password requirements discussed above.

xiii. Motorola designated certain documents and information as confidential. These designations included, but were not limited to, "Motorola Confidential Restricted;" "Motorola Confidential Proprietary;" and Motorola "Internal Use Only."

xiv. As part of the hiring process, Motorola employees were required to sign Confidentiality Agreements which required, among other things, that they "not disclose to others, either during or subsequent to employment by Motorola, any confidential information of Motorola," and "upon termination of employment by Motorola, to promptly deliver to a designated Motorola representative all documents and other records which relate to the business activities of Motorola or any other materials which belong to Motorola."

xv. The INDIVIDUAL DEFENDANTS each signed Confidentiality Agreements when they were hired by Motorola.

xvi. Motorola employees received annual refresher trainings, including trainings on the topics covered by the confidentiality agreements and the appropriate use of Motorola computer resources.

xvii. Motorola conducted exit interviews with certain employees before their employment at Motorola ended. These exit interviews covered topics such as future employment and reasons for leaving Motorola.

xviii. Motorola conducted exit interviews with each of the INDIVIDUAL DEFENDANTS.

Motorola, certain Motorola employees signed Non-Disclosure Agreements in which they acknowledged their continuing obligations under the confidentiality agreements described above, and acknowledged their return of all Motorola "property and confidential information . . . in whatever form or media, from your possession to Motorola Management."

xx. The INDIVIDUAL DEFENDANTS each signed Non-Disclosure Agreements when they left Motorola.

 Beginning no later than on or about June 8, 2007 and continuing until at least on or about June 22, 2020, in the Northern District of Illinois, Eastern Division, and elsewhere,

HYTERA COMMUNICATIONS CORPORATION, LTD.,



defendants herein, and others known and unknown to the Grand Jury, did knowingly conspire with each other, and others known and unknown to the Grand Jury to violate Title 18, United States Code, Sections 1832(a)(1), (2) and (3).

Manner and Means

3. It was part of the conspiracy that HYTERA recruited and hired the INDIVIDUAL DEFENDANTS, who left Motorola to work for HYTERA. At HYTERA's direction and for the benefit of HYTERA and others, the INDIVIDUAL DEFENDANTS took proprietary and trade secret information from Motorola without authorization. Motorola's proprietary and trade secret information was used by HYTERA and the INDIVIDUAL DEFENDANTS to accelerate the development of HYTERA's DMR products. As a result, HYTERA's DMR products relied on and contained Motorola's proprietary and trade secret information. HYTERA's DMR products were subsequently sold in the Northern District of Illinois and elsewhere in the United States. In addition, the DEFENDANTS would and did carry out the conspiracy and effect its unlawful objects through the following manner and means, among others:

- a. It was part of the conspiracy that HYTERA recruited the INDIVIDUAL DEFENDANTS while they were employed at Motorola.
- b. It was further part of the conspiracy that HYTERA paid the INDIVIDUAL DEFENDANTS higher salaries and benefits than what they received at Motorola.
- c. It was further part of the conspiracy that defendants

 made false statements to Motorola that concealed
 their employment or planned employment with HYTERA.
- d. It was further part of the conspiracy that acting with HYTERA's knowledge, on HYTERA's behalf, and for HYTERA's benefit, instructed Motorola employees to take Motorola items and documents related to Motorola DMR technology for use at HYTERA.
- e. It was further part of the conspiracy that, acting with HYTERA's knowledge, on HYTERA's behalf, and for HYTERA's benefit,

 accessed information in Motorola's document database that contained proprietary and trade secret information related to Motorola's DMR technology.
- f. It was further part of the conspiracy that, acting with HYTERA's knowledge, on HYTERA's behalf, and for HYTERA's benefit, stole, concealed, copied, received and possessed Motorola's trade secret information, without authorization.

- g. It was further part of the conspiracy that the INDIVIDUAL DEFENDANTS, while employed by HYTERA, and without authorization, used Motorola documents, including documents containing proprietary and trade secret information to develop HYTERA's DMR products, to train employees and to market DMR products.
- h. It was further part of the conspiracy that HYTERA used Motorola's trade secret information to sell DMR products around the world.
- i. It was further part of the conspiracy that the DEFENDANTS concealed, misrepresented and hid and caused to be concealed, misrepresented, and hidden the existence and the purpose of the conspiracy and the acts done in furtherance of the conspiracy.

Overt Acts

- 4. In furtherance of the conspiracy and to achieve the objects and purposes thereof, the DEFENDANTS committed and caused to be committed the following overt acts, among others, in the Northern District of Illinois and elsewhere:
- a. Beginning in or about June 2007, HYTERA's CEO began recruiting to work for HYTERA.
- b. Beginning in or about December 2007, HYTERA and recruiting other Motorola employees, including for employment at HYTERA.

c. instructed to obtain information about Motorola's DMR products for use at HYTERA.

- d. HYTERA provided the INDIVIDUAL DEFENDANTS with higher salaries and benefits than the INDIVIDUAL DEFENDANTS earned at Motorola.
- e. Beginning in February 2008, accessed approximately 11,400 documents in the Internal Database that contained Motorola DMR trade secret information, including hundreds of documents that he had never before accessed.
- f. Beginning in February 2008, began accessing dozens of documents in a Motorola database that contained Motorola DMR trade secret information, including at least 59 documents that he had never before accessed.
- g. On or about February 21, 2008, emailed writing, "Are we going to 'reuse' as much as possible or we need to develop most of them from scratch to avoid patent infringement" and "[i]f want it to be fast and reuse as much as possible from the existing Motorola product, then we may need less headcount. and I will discuss about this."
- h. On or about February 22, 2008, emailed writing, and I have been working very hard in backing up all the information. We are trying to grab whatever we can. We will surely need some of them when we are there. I think we have a total of 30G [gigabytes of data] now. Do you have

anything in mind that you need while we are still here? Maybe something in [Motorola's Database]. :-) On or about February 22, 2008, emailed What we can grab for now is all sw [software] related information and writing, trying to get from [Motorola's Database] for general project related information. Any hw [hardware] information you need in particular? we can try to grab from hw as well" On or about March 3, 2008, HYTERA hosted a recruitment event j. at HYTERA's facility in Penang, Malaysia. for k. Beginning no later than March 2008, nformed that they would be using Motorola's DMR documents and information to develop DMR products for HYTERA. 1. Beginning in March 2008, began accessing hundreds of documents in a Motorola database that contained Motorola DMR trade secret information, including hundreds of documents that he had never before accessed. In or about May 2008, accessed hundreds of files on m. Motorola's document database, over 400 of which were accessed by her for the first time. On or about May 23, 2008, emailed n.

to cause a lot of problem as we are technical people and bring along a lot of knowledge.

to discuss his departure from Motorola and wrote, "It is going

We have/will signed the NDA [non-disclosure agreement] and some of our lies may cause problems once Motorola finds out."

- o. Beginning no later than October 2008, recruited who was then employed at Motorola, to work for HYTERA.
 - p. HYTERA hired the INDIVIDUAL DEFENDANTS.
- q. In October 2008, and discussed using Motorola information to develop HYTERA DMR products.
- r. On or about October 1, 2009, sent an email that described HYTERA, writing, "This company setup from purely copying one..haha...buy otehr [sic] ppl radio can copy earlier :p".
- s. In or about January 2009, and and discussed, via email, copying Motorola data for use at HYTERA.
- t. discussed, via email, which Motorola documents and technology to access and use at HYTERA.
- Motorola documents and technology to develop HYTERA DMR products.

u.

- v. During their Motorola exit interviews.

 did not disclose to Motorola that they had been hired by HYTERA.
 - w. In or around May 2010, HYTERA began selling DMR products.

used

- x. On or about May 22, 2017, emailed HYTERA's CEO about "aligning" his story with in connection with a civil lawsuit brought in the Northern District of Illinois by Motorola against HYTERA alleging theft of Motorola's DMR trade secrets (the "Civil Case").
- y. stored Motorola items and documents on their HYTERA laptops.
- z. A HYTERA employee testified during a deposition and at trial in the Civil Case that was fired in the fall of 2018 for refusing to cooperate with HYTERA's internal investigation, when in fact worked for HYTERA from no later than December 2018, throughout the trial of the Civil Case, to at least June 22, 2020.
- aa. As late as 2019, the INDIVIDUAL DEFENDANTS stored Motorola items and documents in their personal email accounts.
- bb. Through at least November 2019, HYTERA sold DMR products containing Motorola source code in the United States, including in the Northern District of Illinois.

In violation of Title 18, United States Code, Section 1832(a)(5).

COUNTS TWO THROUGH FIVE

The SPECIAL NOVEMBER 2019 GRAND JURY further charges:

- 1. Paragraphs 1(a)-(m), (t)-(w), (x)(ii)-(iv) and (vi), and (y) are incorporated here.
- 2. On or about the dates set forth below, in the Northern District of Illinois and elsewhere,

HYTERA COMMUNICATIONS CORPORATION, LTD., and

defendants herein, with the intent to convert a trade secret that was related to a product used in and intended for use in interstate and foreign commerce to the economic benefit of a person other than the trade secret's owner, intending and knowing that the offense would injure Motorola, did knowingly possess and attempt to possess the information identified below, knowing the same to have been stolen and appropriated, obtained, and converted without authorization;

Count	Beginning no later than	Continuing until at least	Trade Secret
TWO	February 22, 2008	August 6, 2019	D
THREE	March 16, 2008	August 6, 2019	C
FOUR	April 9, 2008	August 6, 2019	F
FIVE	April 10, 2008	August 16, 2019	В

COUNTS SIX AND SEVEN

The SPECIAL NOVEMBER 2019 GRAND JURY further charges:

- 1. Paragraphs 1(a)-(k), (n), (t)-(w), (x)(ii) and (iv), and (y) are incorporated here.
- On or about the dates set forth below, in the Northern District of Illinois and elsewhere,

HYTERA COMMUNICATIONS CORPORATION, LTD., and

defendants herein, with the intent to convert a trade secret that was related to a product used in and intended for use in interstate and foreign commerce to the economic benefit of a person other than the trade secret's owner, intending and knowing that the offense would injure Motorola, did knowingly possess and attempt to possess the information identified below, knowing the same to have been stolen and appropriated, obtained, and converted without authorization;

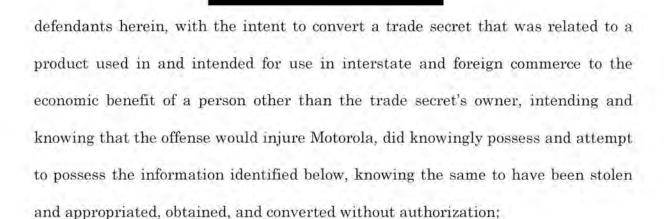
Count	Beginning no later than	Continuing until at least	Trade Secret
SIX	February 22, 2008	June 25, 2019	D
SEVEN	April 10, 2008	March 14, 2017	В

COUNTS EIGHT THROUGH TEN

The SPECIAL NOVEMBER 2019 GRAND JURY further charges:

- 1. Paragraphs 1(a)–(k), (o), (t)-(w), (x)(ii)-(iv), and (y) are incorporated here.
- 2. On or about the dates set forth below, in the Northern District of Illinois and elsewhere,

HYTERA COMMUNICATIONS CORPORATION, LTD., and



Count	Beginning no later than	Continuing until at least	Trade Secret
EIGHT	February 22, 2008	November 4, 2019	D
NINE	March 16, 2008	July 22, 2019	C
TEN	April 10, 2008	July 22, 2019	В

COUNTS ELEVEN AND TWELVE

The SPECIAL NOVEMBER 2019 GRAND JURY further charges:

- 1. Paragraphs 1(a)-(k), (p), (t)-(w), (x)(iii) and (v), and (y) are incorporated here.
- On or about the dates set forth below, in the Northern District of Illinois and elsewhere,

HYTERA COMMUNICATIONS CORPORATION, LTD., and

defendants herein, with the intent to convert a trade secret that was related to a product used in and intended for use in interstate and foreign commerce to the economic benefit of a person other than the trade secret's owner, intending and knowing that the offense would injure Motorola, did knowingly possess and attempt to possess the information identified below, knowing the same to have been stolen and appropriated, obtained, and converted without authorization.

Count	Beginning no later than	Continuing until at least	Trade Secret
ELEVEN	December 7, 2008	September 17, 2019	C
TWELVE	December 7, 2008	September 17, 2019	Е

COUNTS THIRTEEN AND FOURTEEN

The SPECIAL NOVEMBER 2019 GRAND JURY further charges:

- 1. Paragraphs 1(a)-(k), (q), (t)-(w), (x)(ii)-(iii), and (y) are incorporated here.
- 2. On or about the dates set forth below, in the Northern District of Illinois and elsewhere,

HYTERA COMMUNICATIONS CORPORATION, LTD., and

defendants herein, with the intent to convert a trade secret that was related to a product used in and intended for use in interstate and foreign commerce to the economic benefit of a person other than the trade secret's owner, intending and knowing that the offense would injure Motorola, did knowingly possess and attempt to possess the information identified below, knowing the same to have been stolen and appropriated, obtained, and converted without authorization.

Count	Beginning no later than	Continuing until at least	Trade Secret
THIRTEEN	March 16, 2008	November 4, 2019	C
FOURTEEN	April 10, 2008	November 4, 2019	В

COUNTS FIFTEEN THROUGH SEVENTEEN

The SPECIAL NOVEMBER 2019 GRAND JURY further charges:

- 1. Paragraphs 1(a)-(k), (r), (t)-(w), (x)(ii)-(iii), (vi), and (y) are incorporated here.
- On or about the dates set forth below, in the Northern District of Illinois and elsewhere,

HYTERA COMMUNICATIONS CORPORATION, LTD., and

defendants herein, with the intent to convert a trade secret that was related to a product used in and intended for use in interstate and foreign commerce to the economic benefit of a person other than the trade secret's owner, intending and knowing that the offense would injure Motorola, did knowingly possess and attempt to possess the information identified below, knowing the same to have been stolen and appropriated, obtained, and converted without authorization.

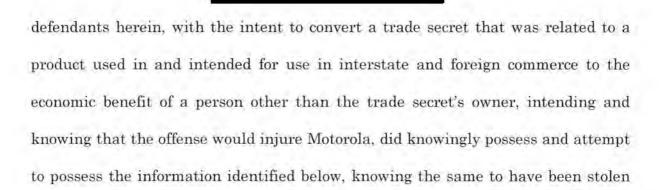
Count	Beginning no later than	Continuing until at least	Trade Secret
FIFTEEN	March 16, 2008	October 29, 2019	C
SIXTEEN	April 9, 2008	November 4, 2019	F
SEVENTEEN	April 10, 2008	October 29, 2019	В

COUNTS EIGHTEEN THROUGH TWENTY

The SPECIAL NOVEMBER 2019 GRAND JURY further charges:

- 1. Paragraphs 1(a)-(k), (s)-(w), (x)(ii)-(iii), (vi), and (y) are incorporated here.
- On or about the dates set forth below, in the Northern District of Illinois and elsewhere,

HYTERA COMMUNICATIONS CORPORATION, LTD., and



Count	Beginning no later than	Continuing until at least	Trade Secret
EIGHTEEN	March 16, 2008	March 4, 2020	C
NINETEEN	April 9, 2008	March 4, 2020	F
TWENTY	April 10, 2008	March 4, 2020	В

and appropriated, obtained, and converted without authorization.

COUNT TWENTY-ONE

The SPECIAL NOVEMBER 2019 GRAND JURY further charges:

- 1. Paragraphs 1(a)-(s), (t)-(w), (x)(i), and (y), are incorporated here.
- Beginning no later than 2008 and continuing until at least September
 25, 2019, in the Northern District of Illinois and elsewhere,

HYTERA COMMUNICATIONS CORPORATION, LTD.,

defendant herein, with the intent to convert a trade secret that was related to a product used in and intended for use in interstate and foreign commerce to the economic benefit of a person other than the trade secret's owner, intending and knowing that the offense would injure Motorola, did knowingly possess and attempt to possess Trade Secret A, knowing the same to have been stolen and appropriated, obtained, and converted without authorization.

FORFEITURE ALLEGATION

 Upon conviction of one or more of the offenses alleged in Counts One through Twenty-Two of this Indictment,

HYTERA COMMUNICATIONS CORPORATION, LTD.,



defendants herein, shall forfeit to the United States pursuant to 18 U.S.C. §§ 981(a)(1)(C), 1834, 2323 and 28 U.S.C. § 2461, any property, real or personal, constituting or derived from, the proceeds they obtained directly or indirectly as a result of the offenses in the Indictment; any property traceable to such property including, but not limited to a money judgment for a sum of money equal to all of the proceeds obtained as a result of the offense listed in this Indictment; any property

used, or intended to be used, in any manner or part, to commit, or to facilitate the commission of said violation; and any article, the making or trafficking of which is, prohibited under 18 U.S.C. § 1832.

2. If, as a result of any act or omission of the defendants, any property subject to forfeiture:

a. cannot be located upon the exercise of due diligence;

b. has been transferred or sold to, or deposited with, a third person;

c. has been placed beyond the jurisdiction of the Court;

d. has been substantially diminished in value; or

 e. has been co-mingled with other property which cannot be subdivided without difficulty;

the United States intends, pursuant to Title 21, United States Code, Section 853(p), as incorporated by Title 18, United States Code, Section 2323(b)(2), to seek forfeiture of any other property of said defendant up to the value of the forfeitable property.

Pursuant to Title 18, United States Code, Sections 981(a)(1)(C), 1834, and 2323, and Title 28, United States Code, Section 2461.

A TRUE BILL:

FOREPERSON

JOHN C. KOCORAS

Attorney for the United States,

Acting Under Authority Conferred by

28 U.S.C. § 515