EXCISE

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Department of State **TELEGRAM**

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DEPARTMENT OF STATE A/CDC/MR
REVIEWED by RHW DATE 11/3/85
( ) RELEASE ( ) DECLASSIFY
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FOI, EO or PA exemptions (b)(3)
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E.O. 12065: N/A

TAGS: NATO

SUBJECT: ADDITIONAL REPORT ON PROBABLE CHEMICAL WARFARE ATTACK
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1. THE FOLLOWING STATEMENT WAS READ BY THE DEPARTMENT

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PRESS SPOKESMAN AT THE NOON PRESS BRIEFING ON JANUARY 29.

BEGIN STATEMENT.

---------- CHEMICAL WARFARE - BLOOD SAMPLES
AS MOST OF YOU ARE AWARE, THE USG HAS OBTAINED EVIDENCE THAT MYCOTOXINS ARE BEING USED AS CHEMICAL AGENTS IN SOUTHEAST ASIA, AND WE HAVE STATED THAT WE WOULD PROVIDE YOU WITH ADDITIONAL INFORMATION AS IT BECAME AVAILABLE. I HAVE AVAILABLE FOR YOU A REPORT ON THE RESULTS OF THE ANALYSIS OF BLOOD SAMPLES TAKEN FROM VICTIMS OF A CHEMICAL WEAPONS ATTACK IN KAMPUCHEA THAT INDICATES PROBABLE EXPOSURE TO MYCOTOXINS. THE REPORT OF SYMPTOMS FROM SURVIVORS OF THE ATTACK ARE CONSISTENT WITH PREVIOUS REPORTS OF MYCOTOXIN EXPOSURE, AND THE TENTATIVE IDENTIFICATION OF MYCOTOXIN SUPPORTS THEIR CLAIM. THESE LATEST RESULTS CONTRIBUTE ANOTHER PIECE OF EVIDENCE TO THE GROWING BODY OF DATA-SUPPORTING THE CHARGE THAT TRICHOTHECENES HAVE BEEN USED AS CHEMICAL/BIOLOGICAL AGENTS IN SOUTHEAST ASIA.

WE ARE MAKING THIS INFORMATION AVAILABLE TO YOU AT THIS TIME AS EVIDENCE THAT THESE ATTACKS ARE CONTINUING. WE ARE ALSO PROVIDING THIS INFORMATION TO THE UNITED NATIONS TEAM INVESTIGATING THE REPORTS OF CHEMICAL WEAPONS USE. IT IS OUR HOPE THAT PUBLICS AND GOVERNMENTS WILL USE EVERY INFLUENCE TO SEEK TO BRING THE USE OF THESE ILLEGAL AND INHUMANE WEAPONS TO A STOP. END STATEMENT.
2. THE FOLLOWING REPORT WAS MADE AVAILABLE TO THE MEDIA AT THE NOON PRESS BRIEFING ON JANUARY 29. BEGIN REPORT:
TITLE: ANALYSIS OF BLOOD SAMPLES FROM CHEMICAL ATTACK VICTIMS INDICATES PROBABLE TRICHOTHECENE EXPOSURE END TITLE
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THE USG RECEIVED REPORTS THAT A CHEMICAL ATTACK HAD TAKEN PLACE IN KAMPUCHEA IN THE FALL OF 1981 RESULTING IN MANY DEATHS. BLOOD SAMPLES WERE DRAWN BY TRAINED MEDICAL PERSONNEL FROM SURVIVORS OF THAT ATTACK, AS WELL AS FROM CONTROL INDIVIDUALS OF SIMILAR AGE AND BACKGROUND. THESE BLOOD SAMPLES HAVE BEEN EXAMINED FOR INDICATIONS OF TRICHOTHECENE POISONING. THE NINE INDIVIDUALS EXPOSED WERE VICTIMS OF AN ALLEGED GAS ATTACK IN WHICH THE AGENTS WERE DELIVERED BY GROUND MUNITIONS. THE VICTIMS WERE ALSO EXPOSED BY WADING THROUGH A CONTAMINATED BODY OF WATER. SYMPTOMS EXPERIENCED INCLUDED VOMITING OF BLOOD, BLURRED

VISION, BLOODY DIARRHEA, DIFFICULT BREATHING, DRY THROAT, LOSS OF CONSCIOUSNESS, FRONTAL HEADACHE, TACHYCARDIA, AND FACIAL EDEMA. BLOOD SMEARS, HEPARINIZED AND NONHEPARINIZE BLOOD SAMPLES, AS WELL AS DETAILED MEDICAL HISTORIES, WERE TAKEN FROM NINE SURVISORS AND FOUR CONTROL INDIVIDUALS SEVERAL WEEKS AFTER THE ALLEGED ATTACK. SAMPLES WERE FORWARDED TO THE UNITED STATES FOR ANALYSIS.
A PORTION OF EACH SAMPLE WAS SUBMITTED ON A BLIND BASIS TO PROFESSOR CHESTER MIROCHA (UNIVERSITY OF MINNESOTA) FOR ANALYSIS TO DETERMINE WHETHER TRICHOTHECENES AND TRICHOTHECENE METABOLITES WERE PRESENT. ADDITIONAL PORTION AND THE BLOOD SMEARS WERE SUBMITTED TO THE US ARMY MEDICAL RESEARCH INSTITUTE OF INFECTIOUS DISEASES (USAMRIID) FORT DETRICK, MARYLAND FOR A SERIES OF TESTS INCLUDING WHITE BLOOD CELL COUNTS, HEMOGLOBIN, HEMATOCRIT, RETICULOCYTE COUNT, MEAN CELL VOLUME, AND VARIOUS LIVER AND KIDNEY FUNCTION ENZYME TESTS. THE RESULTS OF THE ANALYSES ARE CONSISTENT WITH TRICHOTHECENE EXPOSURE IN AT LEAST TWO OF THE ALLEGED GASSING VICTIMS AND TEND TO SUPPORT THE HYPOTHESIS THAT A TRICHOTHECENE-BASED AGENT WAS USED IN TH ATTACK.
USING THE SELECTED ION-MONITORING GAS CHROMATOGRAPHY/MAS SPECTROSCOPY ANALYSIS TECHNIQUE, DR. MIROCHA WAS ABLE TO TENTATIVELY IDENTIFY A METABOLITE OF T-2 TOXIN (I.E., HT-2) IN THE BLOOD OF TWO ALLEGED VICTIMS. THE COMPOUND
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WAS IDENTIFIED ON THE BASS OF ITS SELECTED ION MASSES AND GAS CHROMATOGRAPHIC RETENTION TIMES.

THE RESULTS OF ANALYSES PERFORMED AT USAMRIID INDICATE CHANGES IN THE WHITE CELL COUNTS OF THOSE INDIVIDUALS ALLEGEDLY EXPOSED TO THE CHEMICAL AGENT. THESE CHANGES WERE COMPATIBLE WITH THE CLINICAL PICTURE OF TOXIN EXPOSURE A TREND TOWARD DEPRESSED WHITE CELL COUNT IN THE NINE INDIVIDUALS EXPOSED TO CHEMICAL AGENT WAS OBSERVED. ONE EFFECT OF TRICHOTHECENES WHICH PERSISTS FOR SEVERAL WEEKS FOLLOWING EXPOSURE IS A DEPRESSED WHITE CELL COUNT. THE WHITE CELL COUNTS OF ALL BUT ONE OF THE NINE EXPOSED INDIVIDUALS WERE DEPRESSED BELOW NORMAL (WHICH IS APPROX. 7,400) AND TWO INDIVIDUALS HAD EXTREMELY LOW COUNTS (I.E. 1,700 AND 3,000). WHITE CELL COUNTS OF TWO OF THE CONTROL INDIVIDUALS ALSO WERE SLIGHTLY DEPRESSED (5,100 AND 6,500) HOWEVER; AND THE SAMPLING SIZE WAS SO LIMITED THAT THERE

WAS NO REAL STATISTICAL DIFFERENCE BETWEEN CONTROL AND EXPOSED GROUPS WHEN STUDENT'S T-TEST WAS APPLIED . ALTERATIONS IN LIVER AND KIDNEY FUNCTION ENZYMES WERE ALSO OBSERVED, BUT IT WAS IMPOSSIBLE TO DETERMINE WHETHER THESE EFFECTS WERE DUE TO TOXIN EXPOSURE OR TO DETERIORATION OF THE SAMPLES IN TRANSIT.

EXPERIMENTAL STUDIES IN ANIMALS HAVE SHOWN THAT T-2 TOXIN IS METABOLIZED BY LIVER MICROSOMAL ENZYMES TO ITS DEACETYLATED DERIVATIVE, HT-2. ELLISON AND KOTSONIS HAVE ALSO SHOWN THAT HOMOGENATES OF HUMAN LIVER TISSUE RAPIDLY DEACETYLATE T-2 TOXIN TO FORM HT-2 TOXIN; THEREFORE IT IS NOT SURPRISING THAT THIS METABOLITE OF T-2 WAS TENTATIVELY IDENTIFIED IN THE BLOOD OF HUMANS ALLEGEDLY EXPOSED TO T-2 TOXIN. THE PRESENCE OF DETECTABLE AMOUNTS OF HT-2 SEVERAL WEEKS AFTER ALLEGED EXPOSURE TO T-2
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IS SURPRISING AND SOMEWHAT DISTURBING. IN ANIMAL STUDIES, RADIOLABELLED T-2 AND ITS METABOLITES WERE RAPIDLY EXCRETED FROM THE BODY WITH APPROXIMATELY 80 PERCENT OF THE RADIOACTIVITY EXCRETED BY 48 HOURS AFTER EXPOSURE. ON THE BASIS OF THESE STUDIES, IT IS BELIEVED TO BE UNLIKELY THAT METABOLITES OF THE TRICHOTHECENE TOXINS WOULD BE DETECTABLE IN BLOOD BY 72 TO 96 HOURS AFTER AN ATTACK. ANALYSIS FOR THE COMPOUNDS WAS PERFORMED, HOWEVER, DUE TO THE REMOTE POSSIBILITY THAT SOME OF THE COMPOUNDS MAY BE TIGHTLY BOUND TO PROTEIN OR LIPIDS AND WOULD NOT BE RAPIDLY EXCRETED. THE TENTATIVE IDENTIFICATION OF HT-2 TOXIN IN THE BLOOD OF VICTIMS SEVERAL WEEKS AFTER EXPOSURE SEEMS TO INDICATE THE PRESENCE OF A DEPOT OR STORAGE SITE FOR TRICHOTHECENES WITHIN THE BODY. BINDING EXPERIMENTS HAVE SHOWN THAT TRICHOTHECENES BIND STRONGLY TO CERTAIN CELLULAR CONSTITUENTS, NOTABLY, RIBOSOMES, POLYSOMES, AND SULFHYDRY ENZYMES. THESE STUDIES SUPPORT THE HYPOTHESIS THAT ALTHOUGH MOST OF THE COMPOUNDS ARE RAPIDLY CLEARED FROM THE BODY, THE BINDING CHARACTERISTICS OF SOME OF THE METABOLITES MAY RESULT IN THE STORAGE OF SMALL AMOUNTS WITHIN THE BODY FOR CONSIDERABLE PERIODS OF TIME. IF SO, SERIOUS CONSIDERATION MUST BE GIVEN TO LONG TERM - EFFECTS OF SMALL AMOUNTS OF THE TRICHOTHECENES AS WELL AS THE ACUTE EFFECTS OF LARGE DOSES. FURTHER EXPERIMENTAL RESEARCH IS NEEDED TO DEFINE THE EXTENT OF THIS PROBLEM. THESE PRELIMINARY RESULTS SEEM TO INDICATE THAT EVEN

WEEKS AFTER THE INCIDENT, BLOOD SAMPLES FROM VICTIMS OF TRICHOTHECENE ATTACKS MAY BE ABLE TO PROVIDE IMPORTANT EVIDENCE TO SUPPORT CHARGES OF CHEMICAL/BIOLOGICAL WARFARE USE.

THE TENTATIVE IDENTIFICATION OF HT-2 IN THE BLOOD OF TWO VICTIMS, AND THE TREND TOWARD DEPRESSED WHITE CELL COUNTS IN THESE SAME VICTIMS, CANNOT BE TAKEN AS CONCLUSIVE SCIENTIFIC PROOF OF TOXIN EXPOSURE SINCE THE TRACE AMOUNT OF THE COMPOUND PRESENT PRECLUDED UNEQUIVOCAL
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IDENTIFICATION AND QUANTITATION, AND ALSO BECAUSE MANY OTHER MEDICAL PROBLEMS IN ADDITION TO TOXIN EXPOSURE CAN CAUSE A DECREASE IN WHITE CELL COUNTS. IT IS INTERESTING TO NOTE THAT THE INDIVIDUAL WHO SHOWED THE LOWEST WHITE CELL COUNT ALSO SHOWED THE GREATEST AMOUNT OF THE COMPOUND TENTATIVELY IDENTIFIED AS HT-2 IN HIS BLOOD AND WAS REPORT TO HAVE RECEIVED THE GREATEST EXPOSURE TO THE AGENT. HE WAS EXPOSED TO CONTAMINATED WATER FOR OVER 30 MINUTES AND WAS THE ONLY VICTIM WHO FELL DOWN IN THE WATER AND ACTUALLY SWALLOWED SOME OF IT. HOWEVER, THE RESULTS OF THESE TWO INDEPENDENT ANALYSES, COUPLED WITH THE DESCRIPTION BY VICTIMS OF SYMPTOMS CORRELATING EXACTLY WITH THOSE ASSOCIATED WITH TRICHOTHECENE POISONING, PROVIDE STRONG CIRCUMSTANTIAL EVIDENCE THAT TRICHOTHECENES WERE USED AS CHEMICAL AGENTS IN YET ANOTHER CHEMICAL ATTACK IN SOUTH-EAST ASIA.

TRICHOTHECENES HAVE BEEN IDENTIFIED PREVIOUSLY IN ENVIRONMENTAL SAMPLES TAKEN FROM SEVERAL OTHER CHEMICAL ATTACKS IN LAOS AND KAMPUCHEA. ANALYSIS OF CONTROL VEGETATION, WATER, SOIL, CORN, AND RICE SAMPLES FROM THESE AREAS, AS WELL AS REVIEWS OF PUBLISHED-SCIENTIFIC LITERA-TURE, INDICATE THAT THE PARTICULAR TOXINS THAT HAVE PRE-VIOUSLY BEEN IDENTIFIED ARE NOT KNOWN TO OCCUR NATURALLY IN THE COMBINATIONS FOUND AND AT THE LEVELS DETECTED IN SOUTHEAST ASIA. THE LATEST ANALYSIS RESULTS CONTRIBUTE ANOTHER PIECE OF EVIDENCE TO THE GROWING BODY OF DATA SUPPORTING THE CHARGE THAT TRICHOTHECENES HAVE BEEN USED AS CHEMICAL/ BIOLOGICAL AGENTS IN SOUTHEAST ASIA.END-REPORT.

3. THE FOLLOWING Q'S AND A'S WERE PROVIDED PRESS SPOKESMAN FOR NOON PRESS BRIEFING ON JANUARY 29.

BEGIN QS AND AS
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Q. WHEN AND WHERE DID THE ATTACK TAKE PLACE?
A. THE ATTACK TOOK PLACE IN THE FALL OF 1981 IN KAMPUCHEA.

Q. WHO WERE THE TRAINED MEDICAL PERSONNEL?
A. WE DO NOT INTEND TO IDENTIFY WHO COLLECTED THE SAMPLES OTHER THAN TO SAY THEY WERE PROPERLY TRAINED, KNOWN TO US, AND THAT THEY COLLECTED THE SAMPLES IN A CAREFULLY CONTROLLED AND PROFESSIONAL MANNER.

Q. YOU HAVE CALLED THE IDENTIFICATION OF MYCOTOXINS QUOTE TENTATIVE UNQUOTE. DO YOU INTEND TO AMPLIFY THIS REPORT AT SOME LATER DATE WHEN YOUR CONCLUSIONS ARE FIRM?
A. THE WORD QUOTE TENTATIVE UNQUOTE IS USED BECAUSE THE AMOUNT OF MYCOTOXIN PRESENT WAS TOO SMALL TO BE QUANTIFIED. THIS IS NOT SURPRISING, SINCE WE DID NOT EXPECT TOFIND ANY EVIDENCE OF MYCOTOXINS IN THE BLOOD SEVERAL WEEKS AFTER EXPOSURE. THE IMPORTANT POINT IS THAT WE SUSPECTED MYCOTOXIN POISONING IN THE ATTACK, MEDICAL PERSONNEL OBTAINED BLOOD SAMPLES FROM VICTIMS. THESE SAMPLES WERE ANALYZED AND SHOW EVIDENCE OF MYCOTOXIN POISONS. THIS IS YET ANOTHER PIECE OF SUPPORTING EVIDENCE, ALONG WITH THE HUNDREDS OF VICTIM REPORTS, OTHER PHYSICAL SAMPLES, AND THE NEGATIVE CONTROL SAMPLES TO SUPPORT OUR CLAIM THAT MYCOTOXINS OF THE TRICHOTHECENE GROUP ARE BEING USED AS WEAPONS TO KILL PEOPLE IN SOUTHEAST ASIA.

Q. ARE THESE THE SAME MYCOTOXINS THAT YOU HAVE PREVIOUSLY IDENTIFIED?
A. WE HAVE IDENTIFIED FOUR MYCOTOXINS PREVIOUSLY. ONE OF THESE PREVIOUS MYCOTOXINS IS CALLED T-2. WHEN T-2 ENTERS THE BLOOD, IT BREAKS DOWN INTO HT-2. IT IS THIS BREAKDOWN PRODUCT, THAT IS HT-2, THAT HAS BEEN TENTATIVELY IDENTIFIED. END QS AND
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AS.

4. POSTS SHOULD PROVIDE ABOVE TO HOST GOVERNMENT OFFICIALS AND MEDIA REPS AS APPROPRIATE.

5. FOR USUN AND GENEVA: INSTRUCTIONS REGARDING TRANSMITTAL OF ABOVE TO UN GROUP OF EXPERTS WILL FOLLOW SEPTEL. HAIG