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 RUDKFMG/AMEMBASSY STOCKHOLM IMMEDIATE 0000
 RUEHKO/AMEMBASSY TOKYO IMMEDIATE 0000
 INFO RUEHOT/USMISSION-OSUN NEW YORK IMMEDIATE 0000
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 BT
 C O N F I D E N T I A L STATE 298354

E.O. 12065: GDS 11/7/87 (BURT, RICHARD)

TAGS: PARM, NATO

SUBJECT: NEW EVIDENCE OF CBW USE IN SOUTHEAST ASIA

1. CONFIDENTIAL - ENTIRE TEXT.

2. AS NOTED IN PREVIOUS COMMUNICATIONS REGARDING THE DISCOVERY OF TRICOTHECENE TOXINS IN SAMPLES FROM THE SITE OF A REPORTED CBW ATTACK IN KAMPUCHEA, THE USG HAS HAD OTHER SAMPLES UNDER ANALYSIS FROM AREAS OF REPORTED ATTACKS IN BOTH LAOS AND KAMPUCHEA. THREE OF THESE SAMPLES HAVE NOW BEEN TESTED FOR TOXINS, AND THE RESULTS ANALYZED. IN ADDITION, CONTROL SAMPLES OF BACKGROUND VEGETATION FROM NEAR THE KAMPUCHEAN VILLAGE FROM WHICH THE ORIGINAL, POSITIVE SAMPLE WAS COLLECTED HAVE BEEN

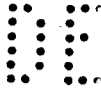
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DEPARTMENT OF STATE A/CDC/MR

REVIEWED by Shw Cook DATE 11/17/88

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TESTED FOR BACKGROUND LEVELS OF THESE TOXINS. PARA 5 TO 8 BELOW CONTAIN THE RESULTS OF THESE ANALYSIS, AS THEY STAND TO DATE.

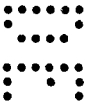
3. THE USG WILL, IN THE NEAR FUTURE, BE MAKING MUCH OF THIS INFORMATION AVAILABLE TO THE UN FOR TRANSMISSION TO THE GROUP OF EXPERTS INVESTIGATING CBW USE IN SOUTHEAST ASIA AND AFGHANISTAN; AND WILL ALSO BE MAKING IT AVAILABLE PUBLICLY. FYI, THE INFORMATION IN PARA 5 BELOW WILL BE PROVIDED CONGRESS IN OPEN HEARINGS ON TUES., NOV. 10. END FYI.

4. POSTS ARE REQUESTED TO MAKE THE CONTENTS OF PARAS GRAPHS 5 THROUGH 8 AVAILABLE ON A CONFIDENTIAL BASIS TO HOST GOVERNMENTS BY NO LATER THAN MONDAY, NOVEMBER 9. POSTS MAY INDICATE THAT USG INTENDS TO MAKE PARA 5'S SUBSTANCE AVAILABLE TO UN AND THE PUBLIC IN THE NEAR FUTURE. EUROPEAN POSTS VISITED BY CBW BRIEFING TEAM SHOULD MAKE THIS INFORMATION AVAILABLE TO SENIOR OFFICIALS WHO MET WITH TEAM, AND TO OTHER OFFICIAL PARTICIPANTS IN THOSE BRIEFINGS AS APPROPRIATE, EXPRESSING APPRECIATION FOR TEAM'S RECEPTION, AND RECALLING ITS PROMISE THAT FURTHER RESULTS WOULD BE MADE AVAILABLE TO HOST GOVERNMENT AS SOON AS POSSIBLE. USNATO SHOULD MAKE INFO AVAILABLE TO ALLIED DELEGATIONS.

5. SUMMARY: ANALYSIS OF THREE SUSPECTED CHEMICAL WARFARE SAMPLES FROM SOUTHEAST ASIA HAS REVEALED THE PRESENCE OF TRICHOHECENE TOXINS IN ALL THREE SAMPLES. ANALYSES OF FOUR NORMAL FLORA VEGETATION AND TWO SOIL SAMPLES, COLLECTED FROM A SITE SEVERAL KILOMETERS AWAY FROM THE PERIPHERY OF ONE OF THESE ATTACK AREAS, WERE NEGATIVE FOR TRICHOHECENES. THESE RESULTS SUPPORT THE CONCLUSION THAT TRICHOHECENES HAVE BEEN USED AS CHEMICAL WARFARE AGENTS IN SOUTHEAST ASIA. END SUMMARY

6. IN AUGUST OF 1981, DEPARTMENT OF THE ARMY REPORTED THAT ANALYSIS OF A VEGETATION SAMPLE TAKEN FROM THE SITE OF A "YELLOW RAIN" ATTACK IN KAMPUCHEA REVEALED THE PRESENCE OF THREE POTENT TRICHOHECENE TOXINS; I.E., 109 PPM OF NIVALENOL, 59.1 PPM OF DEUXYNIVALENOL, AND 3.15 PPM OF T2 TOXIN. BECAUSE OF THE EXTREMELY HIGH LEVELS OF TOXINS FOUND; THE FACT THAT THESE TOXINS ARE

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NOT KNOWN TO OCCUR NATURALLY IN KAMPUCHEA! AND THE STRIKING SIMILARITY BETWEEN THE SYMPTOMS CAUSED BY THESE TOXINS AND THOSE PRODUCED BY THE "YELLOW RAIN" THESE RESULTS PROVIDE STRONG CIRCUMSTANTIAL EVIDENCE THAT TRICHOTHECENE TOXINS WERE BEING UTILIZED AS CHEMICAL WARFARE AGENTS. ANALYSIS OF OTHER SUSPECTED CHEMICAL WARFARE SAMPLES FROM BOTH LAOS AND KAMPUCHEA FOR THE PRESENCE OF TRICHOTHECENES WAS BEGUN IN AN EFFORT TO PROVIDE CORROBORATIVE EVIDENCE. SAMPLES WERE EXAMINED BY A CIVILIAN SCIENTIST, DR. CHESTER MIROCHA, AT THE UNIVERSITY OF MINNESOTA. THE STUDIES WERE DONE ON A BLIND BASIS, I.E., DR. MIROCHA WAS GIVEN NO INFORMATION CONCERNING THE HISTORY OR ORIGIN OF SAMPLES. BUT WAS ASKED TO EXAMINE CODED UNKNOWN'S FOR THE PRESENCE OF TRICHOTHECENES. THE FIRST SAMPLE, CODED D, CONSISTED OF 10 ML OF WATER TAKEN FROM THE SAME CHEMICAL ATTACK SITE IN KAMPUCHEA AS THE LEAF AND STEM SAMPLE PREVIOUSLY EXAMINED. THE SECOND SAMPLE (SAMPLE E) CAME FROM THE SITE OF A "YELLOW RAIN" ATTACK OCCURRING ON MARCH 13, 1961, IN LAOS. IT CONSISTED OF YELLOWISH-BROWN POWDER SCRAPED FROM THE SURFACE OF ROCKS IN THE AREA OF THE ATTACK. SYMPTOMS REPORTED BY VICTIMS INCLUDED SEVERE NAUSEA, VOMITING, AND BLOODY DIARRHEA. THE THIRD SAMPLE (SAMPLE F) WAS TAKEN FROM THE SITE OF A "YELLOW RAIN" ATTACK WHICH OCCURRED ON APRIL 2, 1961, IN LAOS. TWENTY-FOUR PEOPLE REPORTEDLY DIED IN THIS ATTACK AND THERE WERE 47 SURVIVORS. SYMPTOMS INCLUDED SEVERE SKIN IRRITATION AND RASH; NAUSEA, VOMITING, AND BLOODY DIARRHEA. THE SAMPLE WAS SCRAPED FROM A ROCK WITH A BAMBOO KNIFE. THERE WAS VERY LITTLE OF SAMPLE F CONTAINED IN THE VIAL RECEIVED FOR TESTING. THE QUANTITY WAS TOO SMALL TO BE ACCURATELY WEIGHED, AND INSPECTION OF THE VIAL REVEALED ONLY A VERY SMALL SPECK, ESTIMATED TO WEIGH MUCH LESS THAN 0.1 MG. OTHER SAMPLES OF VEGETATION AND SOIL WERE TAKEN A FEW KM AWAY FROM THE PERIPHERY OF THE AREA OF THE KAMPUCHEAN CHEMICAL ATTACK REFERENCED ABOVE. THE VEGETATION IS OF THE SAME SPECIES AS THOSE PREVIOUSLY COLLECTED FROM THE CHEMICAL ATTACK SITE AND WERE SAMPLED IN AN EFFORT TO PROVIDE THE BEST POSSIBLE CONTROL SAMPLES. SAMPLES WERE HANDLED, SEALED, AND TRANSPORTED IN THE SAME MANNER AS THE PREVIOUSLY EXAMINED VEGETATION SAMPLE.

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7. ANALYSIS OF THE SAMPLES INVOLVED A SERIES OF EXTRACTIONS FOLLOWED BY FERRIC GEL SEPARATION, SELECTED ION MONITORING ON A COMPUTERIZED GAS CHROMATOGRAPH/MASS SPECTROMETER, AND COMPARISON OF FULL MASS SPECTRAL SCANS WITH THE STANDARDS. SAMPLE U (THE WATER SAMPLE FROM KAMPUCHEA) WAS FOUND TO CONTAIN 65 PPM OF DEOXYNI-VALENOL (DON) AND A TRACE AMOUNT OF DIACETOXYSCIRPENOL (DAS). NO NIVALENOL OR T2 TOXIN WAS DETECTED; HOWEVER, THE TRICHOHECENE-CONTAINING ACETONITRILE FRACTION OF SAMPLE E FROM LAOS SHOWED A STRONG POSITIVE FOR DAS WHICH REMAINS TO BE QUANTIFIED. THE PETROLEUM ETHER FRACTION FROM THIS SAMPLE CONTAINED A YELLOW PIGMENT VERY SIMILAR TO THOSE PREVIOUSLY IDENTIFIED IN CULTURES OF FUSARIUM ROSEUM, INDICATING THAT THE YELLOW POWDER PROBABLY CONSISTED OF A CRUDE EXTRACT FROM A FUSARIUM CULTURE. SAMPLE F, THE VIAL CONTAINING A SPECK OF YELLOW MATERIAL FROM LAOS, WAS FOUND TO CONTAIN 10 NG OF DAS. SAMPLES FROM AN AREA IN KAMPUCHEA WHICH HAD NOT BEEN SUBJECTED TO A CHEMICAL ATTACK, WERE FOUND TO CONTAIN NO TRICHOHECENES.

8. THESE RESULTS SUPPORT THE HYPOTHESIS THAT TRICHOHECENES HAVE BEEN USED AS CHEMICAL WARFARE AGENTS IN LAOS AND KAMPUCHEA. SINCE THE PRESENCE OF HIGH LEVELS OF TRICHOHECENE TOXINS IN WATER AND IN YELLOW POWDER SCRAPED FROM ROCKS CANNOT BE EXPLAINED BY A NATURAL CONTAMINATION. ADDITIONALLY, NORMAL FLORA FROM KAMPUCHEA WAS FOUND TO BE NEGATIVE FOR TRICHOHECENES.

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END OF MESSAGE

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