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ATOMKAS ZHEPTUS -- *Maproe uenobgo - bakue*

RUSS - DEVELOP REACTOR FOR SPACE

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1964
NY NEW YORK, SEPT. 3 (RFE)--STUART H. LOORY REPORTS IN
THURSDAY NYHT FROM:

GENEVA.

AMERICANS WERE TAKEN BY SURPRISE YESTERDAY WHEN RUSSIAN
SCIENTISTS REVEALED BEFORE A MEETING

TOP 5,000 OF THE WORLD'S TOP NUCLEAR SCIENTISTS AND ENGINEERS THAT THEY
HAVE DEVELOPED

A SMALL NUCLEAR REACTOR TO SUPPLY ELECTRICAL POWER FOR SPACE
SHIPS.

THE IMPLICATIONS WERE THE SOVIETS ARE PROBABLY CARRYING
ON A PROGRAM TO USE ATOMIC ENERGY IN SPACE TRAVEL.

SOVIET SCIENTISTS N. N. PONOMAREV-STEPNOY TOLD OF A SMALL
NUCLEAR REACTOR, CALLED ROMASHKA ("DAISY"), IN A REPORT TO THE
THIRD UNITED NATIONS INTERNATIONAL CONFERENCE ON PEACEFUL
USES OF ATOMIC ENERGY. THE DEVICE, HE EXPLAINED, IS BUILT
INTO A SYSTEM THAT, WITHOUT ANY MOVING PARTS, CONVERTS THE
HEAT MADE BY SPLITTING URANIUM ATOMS DIRECTLY INTO ELECTRICITY.

IN A CAREFUL ANSWER TO A REPORTER'S QUESTION, HE SAID
THAT IS THE KIND OF DEVICE THAT COULD BE USED TO SATISFY
ALL THE REQUIREMENTS OF PROVIDING ELECTRICAL POWER FOR
SPACESHIPS.

THE UNITED STATES HAS BEEN DEVELOPING A NUCLEAR REACTOR
FOR DUTY IN SPACESHIPS, AND AMERICANS HAD HOPED THEY HAD
A CORNER ON THE PROGRAM. YESTERDAY'S SOVIET REPORT SHOWED
THAT WHAT ONE COUNTRY CAN DO WITH A HIGHLY ADVANCED ECHNOLOGY,
ANOTHER CAN DO ALSO.

THE SIMILARITIES BETWEEN ROMASHKA AND THE AMERICAN
REACTOR--CALLED SNAP 10-A FOR "SYSTEMS FOR NUCLEAR AUXILIARY
POWER"--ARE STRIKING.

SNAP 10-A WILL DEVELOP 500 WATTS OF ELECTRICITY--ENOUGH TO OPERATE A COMMUNICATIONS SATELLITE (SUCH AS TELSTAR OR RELAY) OR A WEATHER SATELLITE (SUCH AS TIROS OR NIMPUS I) OR A SURVEILLANCE SATELLITE (SUCH AS THE TOP SECRET CAMOS).

ROMASHKA, THE RUSSIANS SAID, ALSO GENERATES 500 WATTS. IN FACT, THE SOVIET DEVICE IS AHEAD OF THE AMERICAN IN THAT IT HAS ALREADY PROVED ITSELF AS A FULL SYSTEM. IT PROVIDED ELECTRICITY FOR THE FIRST TIME AUG. 14. ALL THE VARIOUS PARTS OF SNAP 10-A HAVE WORKED SEPARATELY OR ON NON-NUCLEAR HEAT, BUT THE FULL SYSTEM WILL NOT BE TESTED UNTIL LATER THIS MONTH.

SNAP 10-A WILL GET ITS POWER BY TAKING THE HEAT FROM THE REACTOR AND CHANNELING IT PAST ONE END OF A SLUG OF GERMANIUM-SILICON ALLOY, THE KIND OF SEMI-CONDUCTING METAL USED IN A TRANSISTOR, TO MAKE A THERMOCOUPLE. THE OTHER END OF THE SLUG WILL BE EXPOSED TO SPACE AND WILL THUS BE VERY COLD.

ROMASHKA WORKS EXACTLY THE SAME WAY. PHOTOGRAPHS OF THE TWO DEVICES SHOW GREAT SIMILARITIES.

FROM OUTWARD INDICATIONS, THE AMERICAN SCIENTISTS CAN TAKE HEART FROM THE FACT THAT SNAP 10-A IS A MACHINE FULLY DESIGNED FOR SPACEFLIGHT--IT HAS BEEN ENGINEERED TO FIT ON TOP OF AN ATLAS--AGENA ROCKET AND WEIGHS ONLY 950 POUNDS. IT IS SCHEDULED FOR A FLIGHT SOMETIME AROUND NEXT APRIL 1.

ROMASHKA HAS BEEN BUILT ONLY AS A GROUND HUGGING EXPERIMENTAL DEVICE. THE SOVIETS WOULD NOT DISCLOSE ITS EXACT SIZE OR WEIGHT, AND SAID IT WAS INTENDED FOR USE ON THE GROUND. -LEN 0520/64