

INCOMING
NRL SPECIAL PROJECTS CONTROL NUMBER

B674-92

DATE
731116

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[illegible]

AAJ398
RR RUXQAAJ
DE RUXQAAJ 021 3200520
ZNY XXXXX VVV ZMM
R 160620Z
BT

XXXXX
CONCERT 014, CONCH 015, [REDACTED] 015, GUARD 328
GUARD PASS CLIENT, PROBE, WHIG

NRL SECRETARY'S OFFICE

FYI

see
Fred FWH 11/19
Reid [REDACTED]

~~TOP SECRET~~ 160620Z NOVEMBER 1973 CITE CONQUER 021.
ROUTINE CONCERT, CLIENT INFO ROUTINE CONCH, PROBE, WHIG,

HANDLE VIA BYEMAN CONTROL CHANNELS
EARPOP

VULNERABILITY OF U.S. NAVAL FORCES TO SOVIET ELINT SURVEILLANCE SATELLITES.

1. DURING RECENT NSA BRIEFINGS FROM NAVAL PERSONNEL CONCERNING THE ACTIVITIES OF SOVIET ELINT RECONNAISSANCE SATELLITES, IT WAS SUGGESTED THAT IDENTIFICATION OF U.S. NAVAL UNITS BY THEIR RADAR CHARACTERISTICS WAS A POSSIBILITY. IN THE POPPY SYSTEM WE HAVE ON NUMEROUS OCCASIONS ATTEMPTED TO ESTABLISH PARAMETRIC

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CORRELATIONS TO U.S. NAVAL UNITS AND HAVE HAD SOME SUCCESS AGAINST A LIMITED NUMBER OF RADARS, [REDACTED]

THESE ARE PRIMARILY WIDELY USED EW/CCA/NAV RADARS WHICH HAVE REASONABLY STABLE PULSE PARAMETERS. WE HAVE ESTABLISHED SHORT TERM CORRELATIONS AGAINST THESE TYPES DURING PAST SPECIAL EXERCISES BUT HAVE NOT UNDERTAKEN TO DETERMINE WHETHER LONG TERM CORRELATIONS, SUCH AS THOSE ESTABLISHED FOR MANY OF THE SOVIET [REDACTED] RADARS ARE POSSIBLE.
2. WE BELIEVE, BASED ON OUR PAST EXPERIENCE AS INDICATED ABOVE, THAT THE SOVIET ELINT RECONNAISSANCE SATELLITES WITH THEIR POORER RF MEASUREMENT CAPABILITY WOULD NOT BE ABLE TO IDENTIFY U.S. NAVAL UNITS ON THE BASIS OF PRF/PRI CORRELATIONS. A POSSIBLE EXCEPTION IS THE STABLE METRIC RADAR [REDACTED] UNIQUE TO THE ENTERPRISE AND LONG BEACH.
IT MAY BE POSSIBLE, HOWEVER, THAT AN ACCURATE MEASUREMENT OF RF FREQUENCY WOULD YIELD BETTER IDENTIFICATION/CORRELATION RESULTS TO THE SOVIETS AND IT MAY BE THAT IT IS IN THIS RESPECT THAT U.S. NAVAL RADARS ARE MOST VULNERABLE TO THE

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SOVIET SECOND AND THIRD GENERATION ELINT SATELLITES.
3. SINCE WE HAVE NO RF MEASUREMENT CAPABILITY IN POPPY, WE CANNOT MAKE AN ASSESSMENT OF THE EXTENT TO WHICH U.S. NAVAL EMITTERS COULD BE "FINGERPRINTED" THROUGH THIS SYSTEM.

WHEN COME TO THIS OVER, WE WOULD APPRECIATE ANY COMMENTS THAT YOU MIGHT HAVE REGARDING THE ABOVE OR DISCRPTIONS OF PAST EFFORTS WHICH MAY INDICATE WHETHER U.S. NAVAL RADARS ARE SIGNIFICANTLY VULNERABLE TO PARAMETER FINGERPRINTING BY THE SOVIET SECOND AND THIRD GENERATION ELINT RECONNAISSANCE SATELLITES.

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