TOP SECRET

OUT58399

T O P S E C R E T 030155Z

1966 MAY 3 02 15Z

25X1

SUBJECT: SUPPORT REQUESTED BY _____

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THE PURPOSE OF THIS CABLE IS TO REQUEST ADDITIONAL SUPPORT AND
RECLARIFY EXISTING SUPPORT REQUESTS.

1. REFERENCE _____ REPLIES TO SUPPORT PREVIOUSLY

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REQUESTED. THIS REPLY REFERS TO:

3 MAY 1966

A. VARIANCE/COVARIANCE OF POSITION ERRORS.

B. SYSTEM TIME/VEHICLE TIME CORRELATION.

C. TIME VARIANCE FOR TIME CORRELATION.

D. VARIANCE OF ATTITUDE ERRORS.

E. RELATIONSHIP BETWEEN IMAGE AND TARGET COORDINATES.

THE ABOVE INFORMATION REQUESTS HAVE BEEN SATISFIED PARTIALLY,
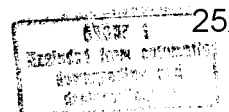THE EXTENT DEPENDING ON THE CAMERA SYSTEM REFERRED TOO.

2. VARIANCE/COVARIANCE OF POSITION ERRORS

WE HAVE RECEIVED THE BEST AVAILABLE ESTIMATES OF THE VARIANCE/
COVARIANCE FOR BOTH POSITION AND VELOCITY COMPONENTS, FOR BOTH THE
CORONA _____ SYSTEMS. THERE IS, HOWEVER, CONFLICTING OPTION AS

25X1

TO WHETHER THESE ARE 1 SIGMA OR 3 SIGMA VALUES. CLOUD THIS BE
CLARIFIED?

EVENTUALLY, AS EXPERIENCE AND REFINEMENTS ARE EFFECTED, IT IS
PROBABLE THAT THESE VALUES WILL BECOME MISSION OUTPUTS RATHER THAN

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CAMERA SYSTEM CONSTANTS TO BE PERIODICALLY UP DATED. IS THIS
INTERPRETATION A CORRECT ONE?

3. SYSTEM TIME/VEHICLE TIME CORRELATION AND TIME VARIANCE FOR
TIME CORRELATION.

WE HAVE RECENTLY RECEIVED FROM ☐   25X1

☐   PROGRAM DOCUMENTATION ENTITLED "910 QUADRATIC   25X1
CURVE FIT PROGRAM FOR TIME CORRELATION".

THIS DOCUMENTATION STATES PROGRAM OUTPUTS OF:

A. COEFFICIENTS OF THE QUADRATIC EQUATION

B. THE AVERAGE DIFFERENCE BETWEEN THE COMPUTED AND OBSERVED
VALUES.

C. THE STANDARD DEVIATION OF THE DIFFERENCES (SD).
SEVERAL QUESTIONS HAVE RESULTED.

1) WHEN CAN WE EXPECT TO RECEIVE THIS INFORMATION ON A
REGULAR BASIS?

2) ASSUME THAT THIS INFORMATION WILL BE INCLUDED AS PART
OF THE MCD.

3) ☐   HAS REQUESTED THAT THE STANDARD DEVIATION OF   25X1
THE COMPUTED COEFFICIENTS BE INCLUDED AS OUTPUT, IN ADDITION TO
THE STANDARD DEVIATION OF THE DIFFERENCES.

4) ☐   ALSO REQUESTS THAT THE VARIANCE OF TIME HACK   25X1
PLACEMENT BE SUPPLIED FOR THE ☐   SYSTEM. THIS INFORMATION MAY   25X1
BE IN THE FORM OF A SPECIFIED DESIGN TOLERANCE, IF ACTUAL OBSER-
VATIONS ARE NOT AVAILABLE.

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4. VARIANCE OF ATTITUDE ERRORS

MEMORANDUM [ ] STATES THAT THIS INFORMATION WILL BE   25X1
SUPPLIED ONLY FOR THE [ ] VEHICLES. THIS INFORMATION IS ALSO   25X1
NEEDED FOR THE CORONA VEHICLES. [ ] HAS BEEN INFORMED   25X1
BY [ ] OF THIS NEED.   25X1

THE INFORMATION [ ] IS REQUESTING FOR THE [ ] SYSTEM   25X1
IN ADDITION TO THE ATTITUDE RATES ALREADY RECEIVED ARE THE DEADBANDS
ON VEHICLE PITCH, ROLL AND YAW AND THE VARIANCE ON PROGRAMMED MIRROR
PITCH AND MIRROR CRAB.

5. RELATIONSHIP BETWEEN IMAGE AND TARGET COORDINATES

THIS INFORMATION HAS BEEN RECEIVED AND IS ACCEPTABLE.

T O P S E C R E T

/END OF MESSAGE/