

CLASSIFIED MESSAGE

SECRET

(When Filled In)



FILE INFO

REPRODUCTION PROHIBITED

30 OCT 68 03 17

ACTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

~~TOP SECRET~~ 230116Z OCT 68 CITE [REDACTED]

PRIORITY [REDACTED] INFO [REDACTED]

SUBJ: 1105 - CR 5 ENGINEERING PLAN

500'
 380 DTS
 SO-121 Edl above
 Reserve (Sept 93)
 10X speed -
 23-24-150

CR-5 IS THE FIRST CORONA MISSION TO FLY WITH A PRIMARY LOAD OF SO-380 FILM (3404 TYPE EMULSION ON ULTRA THIN BASE). THE PRIMARY ENGINEERING OBJECTIVE OF CR-5 IS TO EVALUATE CAMERA OPERATION AND IMAGE QUALITY ASSOCIATED WITH THE SO-380 FILM. IN ADDITION, A 500 FOOT TAG END OF SO-121 (HI-SPEED EKTACHROME COLOR FILM) IS ALSO BEING FLOWN. A SECOND ENGINEERING OBJECTIVE OF CR-5 IS TO EVALUATE THE INTELLIGENCE POTENTIAL OF SO-121 IN THE CORONA SYSTEM.

2. SO-380 EVALUATION. ALL EVALUATIONS WILL BE MADE FROM OPERATIONAL AND HEALTH CHECK PHOTOGRAPHY. HEALTH CHECK PHOTOGRAPHY WILL BE TAKEN OVER CULTURED AREAS AND CORN TARGETS WHEREVER POSSIBLE.

3. SO-121 EVALUATION. WHEN TIME OF CHANGEOVER TO SO-121 CAN BE PREDICATED, IT IS RECOMMENDED THAT THE FOLLOWING PROCEDURE BE CARRIED OUT:

A. [REDACTED] ADVISE [REDACTED] DUTY OFFICER AT [REDACTED] OF CHANGEOVER PREDICATION. EARLIEST POSSIBLE ADVICE IS DESIRED--POSSIBLY AS A SERIES OF UPDATED ESTIMATES.

B. WHEN GOOD PREDICTION OF CHANGEOVER TIME IS AVAILABLE, [REDACTED]

Declassified and Released by the NRO
 In Accordance with E. O. 12958

on NOV 26 1997

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WATCH OFFICER AND PAYLOAD DUTY OFFICER DISCUSS HOW MANY CYCLES OF SO- 21 MAY BE USED FOR DOMESTIC ENGINEERING. [REDACTED] DESIRES A MINIMUM OF 60 CYCLES.

C. [REDACTED] WILL EXAMINE REMAINING AVAILABLE OPS AND APPRISE SOC OF PREFERENCES AND ALTERNATIVES.

D. [REDACTED] EXAMINE OVERALL WEATHER PICTURE FOR ALTERNATIVES AND ASSIST [REDACTED] IN PLANNING OPTIMUM UTILIZATION OF DOMESTIC SO-121 OPERATIONS.

4. THE FOLLOWING IS A SUMMARY OF FILM AND FILTER INFORMATION FOR EACH MAIN CAMERA:

A. AFT-LOOKING CAMERA (310)

PRIMARY FILTER: W-21

ALTERNATE FILTER: W-2E PLUS COLOR CORRECTION PLUS NEUTRAL DENSITY

FILM: SO-380 (23,000 FT) PLUS SO-121 (500 FT)

THE W-2E PLUS COLOR CORRECTION IN THE ALTERNATE FILTER POSITION PROVIDES OPTIMUM COLOR FILTRATION FOR THE SO-121 FILM; THE ADDED NEUTRAL DENSITY COMPENSATES FOR THE HIGH SPEED OF THE SO-121 IN ORDER TO PERMIT USE OF THE SAME SLITS AS SO-380. A MATERIAL CHANGE DETECTOR (MCD) WILL AUTOMATICALLY CHANGE THE FILTERS FROM W-21 TO W-2E WHEN AN MCD ACTUATOR STRIP (SPliced AT BEGINNING OF SO-121) PASSES THRU THE AFT-LOOKING

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CAMERA. BETWEEN THE SO-380 AND MCD THERE IS A 50 FOOT STRIP OF 3404 (SAME EMULSION AS SO-380). THE 3404 (2.9 MILS THICK) HAS BEEN INSERTED TO PROVIDE A GRADUAL TRANSITION BETWEEN SO-380 (2.0 MILS) AND SO-121 (3.3 MILS).

B. FORWARD-LOOKING CAMERA (311)

PRIMARY FILTER: W-25

ALTERNATE FILTER: W-23A

FILM: SO-380 (24,000 FEET)

EVALUATION OF THE W-23A FILTER IS NOT A MAJOR OBJECTIVE OF CR-5. ITS USE WILL BE LIMITED TO A FEW ENGINEERING HEALTH CHECK PASSES IN ORDER TO SUPPLEMENT EXISITING DATA COMPARING THE W-23A AND W-25. PRESENT PLANS ARE TO PERFORM W-25 TO W-23A FILTER CHANGES AS THE VEHICLE PASSES OVER TWO MOBILE CORN TARGETS; THE FILTER CHANGE OPS WILL BE DONE TWICE--ONCE AT THE BEGINNING OF THE MISSION AND ONCE AT THE END.

5. SINGLE MOBILE CORN TARGETS WILL BE REQUESTED IN THE WESTERN UNITED STATES ON AS MANY DAYS AS POSSIBLE. DUAL MOBILE CORN TARGETS WILL BE REQUESTED ON NOV 2, 3, 4, AND 16. APPROXIMATE LOCATIONS ARE:
31 OCT ONTARIO, CALIF.

1 NOV SOUTH OF LAS VEGAS, NEV.

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2 NOV PRESCOTT AND PHOENIX, ARIZ.

3 NOV SMITHFIELD AND HEBER CITY, UTAH (MAY BE DROPPED IF LOGISTICS PROBLEM IS DIFFICULT)

4 NOV ALBUQUERQUE AND SOCORRO, N.M.

5-14 NOV TO BE DETERMINED

15 NOV EUREKA, CALIF.

16 NOV AUBURN AND TURLOCK, CALIF.

17 NOV SAN CLEMENTE, CALIF.

18 NOV LAS VEGAS, NEV.

FINAL SELECTION OF ALL CORN TARGETS WILL BE FORWARDED IN [REDACTED] AFTER CONFERENCE WITH OTHER PROGRAM.

6. NOTE THAT THERE ARE APPROXIMATELY 500 FEET (APPROX 200 CYCLES) MORE FILM IN THE FORWARD-LOOKING CAMERA THAN IN THE AFT-LOOKING. REASON IS EXTRA THICKNESS OF SO-121 IN AFT-LOOKING CAMERA SUPPLY SPOOL. [REDACTED] SHOULD PLAN TO USE THE MONO CYCLES DURING THE SECOND HALF OF 1105. [REDACTED] DOES NOT PLAN ANY MONO ENGINEERING.

7. THERE IS NO DISIC ON CR-5; NOR IS THERE A BI-SPECTRAL FILTER COMBINATION.

8. REQUEST [REDACTED] COMMENT ON PARA 3 ABOVE.

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BT