



~~SECRET~~

(When Filled In)

FILE INFO

31 JAN 69 22 35

REPRODUCTION PROHIBITED

ACTION	[REDACTED]	16
	[REDACTED]	17
	[REDACTED]	18
	[REDACTED]	19
	[REDACTED]	20

~~SECRET~~ 312052Z CITE [REDACTED]

PRIORITY [REDACTED] INFO [REDACTED]

CORONA/J-3

1106

REF: [REDACTED] (COMMENTS REGARDING SO-121 ON CR-6)

1. THE WRITTEN COLOR COMPENSATION FILTER SYNTHESIZED AT [REDACTED] FOR THE CR-6/SO-121 TAG-ON WAS FABRICATED ON SHORT NOTICE AND, AS SUCH, WAS NOT TOTALLY SUCCESSFUL. IT'S SPECTRAL COMPOSITION IS W2E PLUS 20C PLUS 10B PLUS 0.45ND. VISUAL INSPECTION AT [REDACTED] REVEALED SURFACE SCRATCHES, STRAITIONS., AND INTERIOR CLOUDING. CUTTING WAS DIFFICULT BECAUSE OF THE FILTER'S EXTREME BRITTLENESS. ONE CUT WAS SELECTED AS THE BACK-UP SO-121 FILTER AND WAS MOUNTED (IN THE ALTERNATE POSITION) WITH A WRITTEN 21 FILTER (IN THE PRIME POSITION) IN A SLIDE ASSEMBLY (IDENTIFIED AS NBR. 4), TESTED FOR RESOLUTION AND FORWARDED TO [REDACTED]

2. A PREVIOUSLY SYNTHESIZED FILTER, EQUIVALENT TO W2E PLUS 20C PLUS 0.50ND, WAS JUDGED TO BE OF MORE DESIRABLE VISUAL QUALITY WITH REGARD TO OPTICAL BLEMISHES. THIS FILTER WAS MOUNTED (IN THE ALTERNATE POSITION) WITH A WRITTEN 21 FILTER (IN THE PRIME POSITION) IN A SLIDE ASSEMBLY (IDENTIFIED AS NBR. 3), TESTED FOR RESOLUTION AND FORWARDED TO [REDACTED] FOR INSTALLMENT IN THE CR-6 AFT-LOOKING CAMERA.

Declassified and Released by the N R O

In Accordance with E. O. 12958

on NOV 26 1997

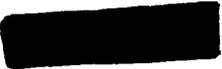
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3. THE EARLIER SYNTHESIZED FILTER (IN SLIDE ASSEMBLY NBR. 3) WILL PRODUCE SLIGHTLY MORE YELLOW IMAGERY ON SO-121 THAN WOULD THE RECENTLY SYNTHESIZED FILTER (IN SLIDE ASSEMBLY NBR. 4). HOWEVER, THE FILTER FACTORS FOR THE TWO DO NOT DIFFER ONE FROM ANOTHER MORE THAN 1/5 STOP. SATISFACTORY COLOR BALANCE AND EXPOSURE ARE ANTICIPATED WITH EITHER FILTER.

4. STATIC 2:1 CONTRAST, THROUGH-FOCUS RESOLUTION TESTS WERE CARRIED OUT WITH A SECOND GENERATION PETZVAL LENS. THE COLOR FILM WAS PROCESSED IN STANDARD E-4 CHEMISTRY AT 85 DEGREES F. NOTE THAT THIS PRODUCES LESS RESOLUTION THAN THE SPECIAL HIGH-DEFINITION PROCESSING THE CR-6/SO-121 IS SCHEDULED TO RECEIVE AT RESULTS INDICATE THAT AT THE FOCAL POSITION FOR PEAK RESOLUTION ON 3404 FILM WITH A WRATTEN 21 FILTER, THE SO-121 RESOLVES 37 1/MM, A LOSS OF ONLY 7.5 PERCENT FROM ITS OWN 2:1 CONTRAST PEAK RESOLUTION. ALTHOUGH THE BACK-UP FILTER IS DISTINCTLY INFERIOR IN VISUAL OPTICAL QUALITY TO THE FIRST CHOICE FILTER, RESOLUTION TESTING (WHICH UTILIZES ONLY VERY SMALL AREAS OF THE FILTER AND DOES NOT SHOW THE DELETERIOUS EFFECTS OF OPTICAL IMPERFECTIONS DURING SCAN) REVEALED ONLY AN INSIGNIFICANT DIFFERENCE BETWEEN TWO FILTERS.

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5.  RECOMMENDS THAT THE PREVIOUSLY SYNTHESIZED FILTER
 (IN SLIDE ASSEMBLY NBR. 3) IS THE BEST AVAILABLE AT THIS TIME FOR USE
 IN CR-6.

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