

COPY OUT 65840

38 APR 19 09Z

P 292214Z ZZS
FM NPIC
TO SSO DIA

25X1

AFSSO USAFE
AFSSO ACIC
AFSSO FTD
AFSSO TAC
AFSSO YOKOTA
FICEUR
FICPAC
FICLANT
OPCEN
ZEM

T O P S E C R E T TITIT RUFF.
CITE NPIC 4488.

25X1

PASS 548TH RTG.
SUBJECT: SO-180 EXPERIMENT, MISSION 1104-2

1. THE PREDOMINANCE OF CORONA-INDUCED FOG ON THE SUBJECT FILM CAUSES CONCERN AS TO THE INTERPRETABILITY OF THE FILM. THIS BEING THE COMPONENT RESPONSIBLE FOR ISSUING EVALUATIONS, THERE DEEMS IT APPROPRIATE TO EXPOUND ON THE POSSIBLE CONSEQUENCES OF INTERPRETATING THE SIGNIFICANCE OF THE COLOR RENDITION.

DISTRIBUTION	
BY	OFFICE
FILE	
CABLE SEC	
OFFICE	
SECURE	
MIS	
SSO	
PS/OC	
RED	
REFRO	
AID	
IS	
PROD	
EN	
AS	
MSD	
MS	
PM	
IAS	
PA-KK4	
SPAD	
DVA-AP	
CMR	

2. FOLLOWING ARE SEVERAL POINTS WORTH OF CONSIDERATION:
A. THE CORONA STATIC-INDUCED FOG CAUSES A GENERAL RED OF VARYING SATURATION IN THE AFFECTED AREAS. THE CORONA DISCHARGE IS EITHER LOW INTENSITY BLUE LIGHT OR AN ENERGY ONLY AFFECTING THE CYAN LAYER OF THE EMULSION, AND THEREFORE IS IMAGED AS RED. THAT RED IS NOT ASSOCIATED WITH INFRARED ENERGY.

B. THE CORONA-INDUCED FOG IS ADDITIVE TO THE IMAGE. RED IMAGE SATURATION MAY BE EXAGGERATED AND OTHER COLORS CONTAMINATED.

C. IN ADDITION TO THE CORONA FOG ASSOCIATED PROBLEMS, THERE ARE COLOR RENDITION ANOMALIES CHARACTERISTIC OF THE CAMERA SYSTEM. BECAUSE THIS IS A PANORAMIC SYSTEM, THE RELATIONSHIP OF THE PRINCIPAL RAY (LOOK ANGLE) TO THE SOLAR POSITION VARIES ACROSS THE FORMAT. EXPOSURE AND COLOR BALANCE THEREFORE, ALSO VARY IN ASSOCIATION WITH SCAN ANGLE. AN ADDITIONAL EXPOSURE COLOR BALANCE VARIATION CAN BE EXPECTED FROM FRAME TO FRAME AS THE SOLAR ELEVATION CHANGES WITH RESPECT TO VEHICLE POSITION.

D. FINALLY, THERE ARE CERTAIN INHERENT CHARACTERISTICS OF SO-180 FILM THAT NEED TO BE CONSIDERED. FOR INSTANCE, HEALTHY VIGOROUS VEGETATION WILL BE IMAGED DIFFERENTLY DEPENDING ON ITS COLOR AND ITS INFRARED REFLECTING CHARACTERISTICS. A BALSAM POPLAR, FOR INSTANCE REFLECTS APPROXIMATELY 72 PERCENT OF THE 900 MILLIMICRON WAVE LENGTH ENERGY INCIDENT UPON IT, WHILE A YELLOW BIRCH REFLECTS ONLY ABOUT 45 PERCENT OF THE SAME WAVE LENGTH ENERGY.

ADVANCE BY
SANITIZED
WITH TEXT

25X1

25X1

25X1

3. THE FOREGOING NOTES SHOULD NOT BE CONSTRUED AS A CONDEMNATION OF THE PRODUCT. THE POINTS ARE MADE ONLY TO INDICATE THE CARE WITH WHICH THIS PRODUCT SHOULD BE EXPLOITED.

GROUP 1
Excluded from automatic
downgrading and
declassification

GP-1
T O P S E C R E T RUFF

END OF MSG