

Center for the Study of National Reconnaissance Classics

GAMBIT PROGRAM
EASTMAN KODAK CO.
1977 PRESENTATION



CENTER FOR THE STUDY OF
NATIONAL RECONNAISSANCE
CHANTILLY, VA

APRIL 2012

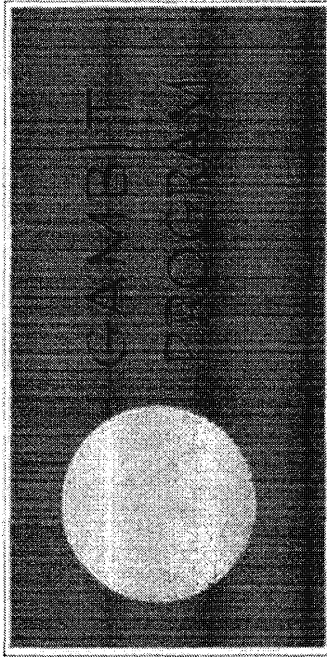
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BIF008W-C-015446-0H-77
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1 of 32 Pages

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24 FEBRUARY 2012

This document has been reviewed per EO 13526,
as amended, and is exempt from automatic declassification.
Date of review: 12/2/2012
Reviewer's initials: [signature]

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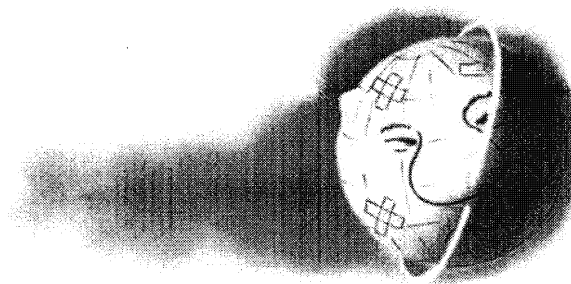
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K PROGRAM

PROVIDES PHOTOGRAPHIC PAYLOAD FOR PROGRAM 110,
THE GAMBIT DUAL RECOVERABLE SATELLITE
RECONNAISSANCE SYSTEM .

PROGRAM 110 OBJECTIVE
ACQUIRE VERY HIGH RESOLUTION STEREO PHOTOGRAPHS
OF SELECTED TARGET AREAS ANYWHERE ON EARTH .



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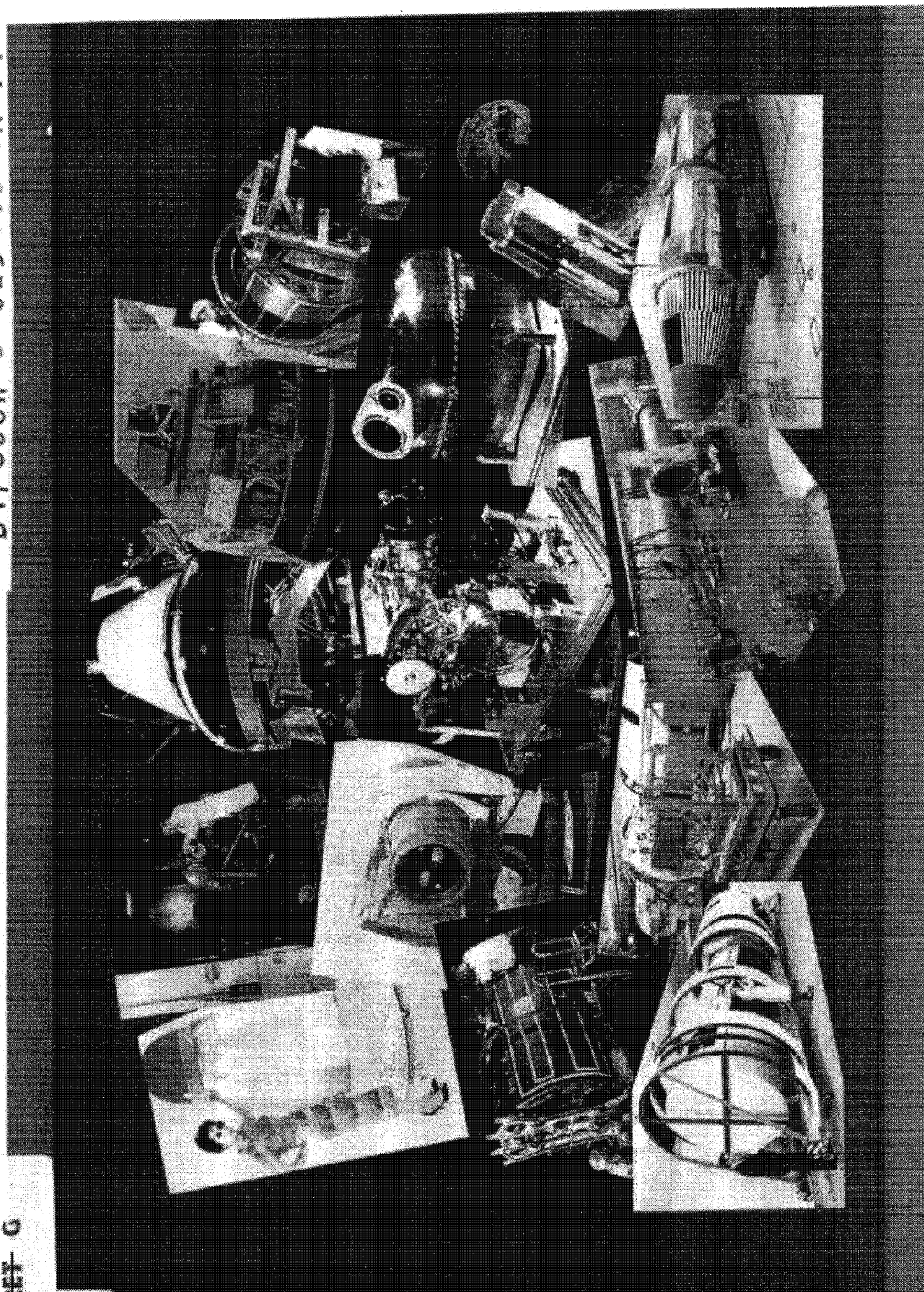
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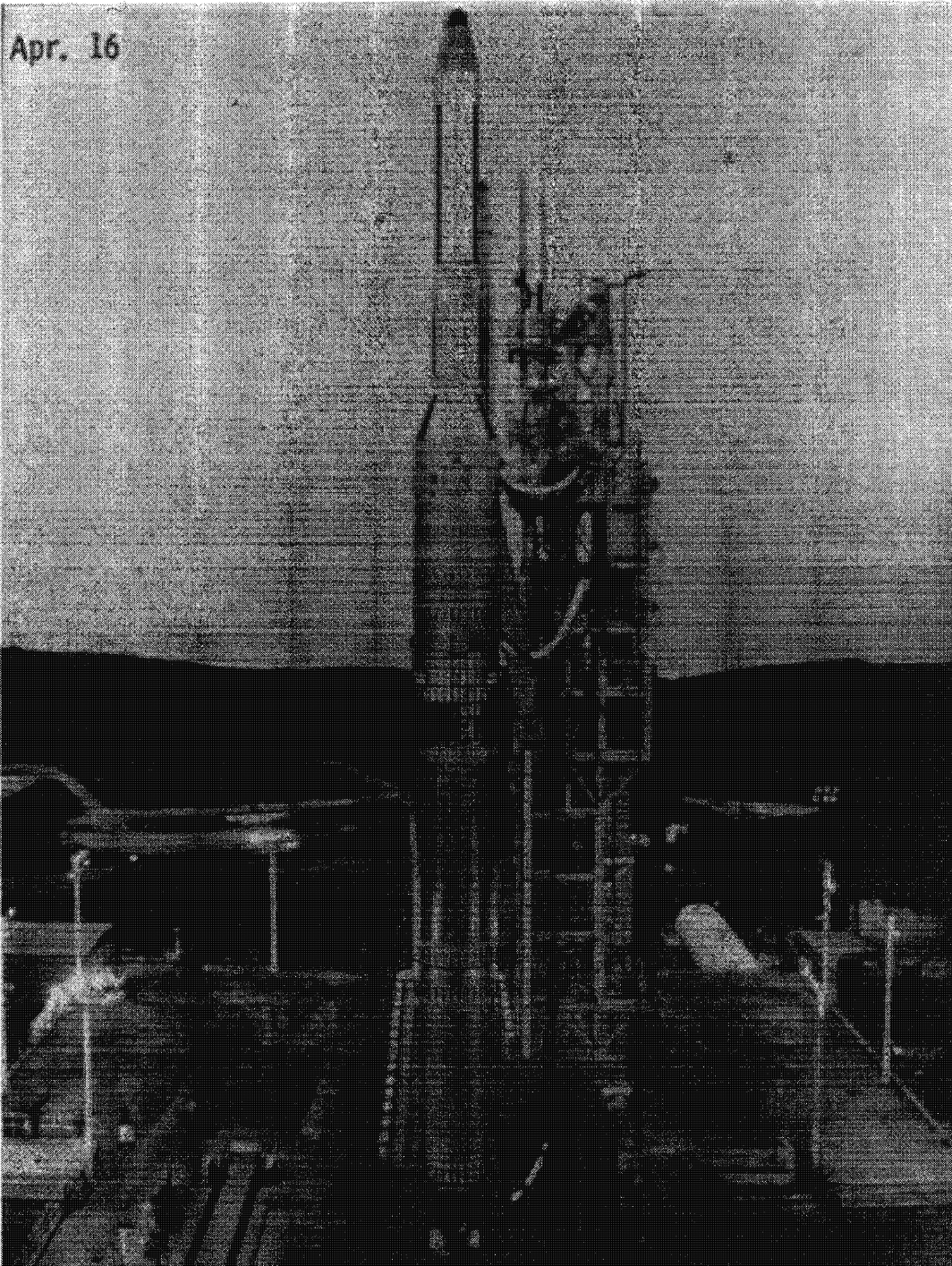
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THE EVOLUTION OF GAMBIT SYSTEMS



1963 / 66 GAMBIT PROGRAM

- 3 FT. DIA. VEHICLE
◦ 30 + FLIGHTS

ADVANCED GAMBIT

- 5 FT. DIA. VEHICLE
- SINGLE RECOVERY BUCKET
- FLIGHTS 1-22

ADVANCED GAMBIT (F0-11)

- DUAL RECOVERY BUCKETS
- FLIGHTS 23-47

ADVANCED GAMBIT (FO-7)

- DUAL RECOVERY BUCKETS
- DUAL CAMERA SYSTEMS (9" x 5")
- FLIGHTS 48-54
- FLIGHTS 55-60

1082

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PROGRAM MILESTONES

	PROGRAM START	1964
FIRST LAUNCH	1966	30 DAY ORBITAL LIFE 1972
ULTRA THIN BASE FILM	1967	EXPOSURE SLIT CHANGE 1972
USE OF SO-121 COLOR FILM	1968	INCREASED FILM CAPACITY (10,800) 1973
DUAL SRVS. 14 DAY ORBITAL LIFE	1969	IMPROVED OPTICAL QUALITY 1973
USE OF 1414 HIGH DEF. B&W FILM	1970	USE OF SO-124 HIGH DEF. B&W FILM 1973
LOW COEF. OPTICAL MATERIALS	1970	USE OF SO-131 FALSE COLOR IR FILM 1973
PPS FACTORY TO PAD	1970	45 DAY ORBITAL LIFE 1974
20 DAY ORBITAL LIFE	1971	9 x 5 DUAL PLATEN CAMERA 1977
LENS FORMULA CHANGE R-5	1971	75 DAY ORBITAL LIFE 1977

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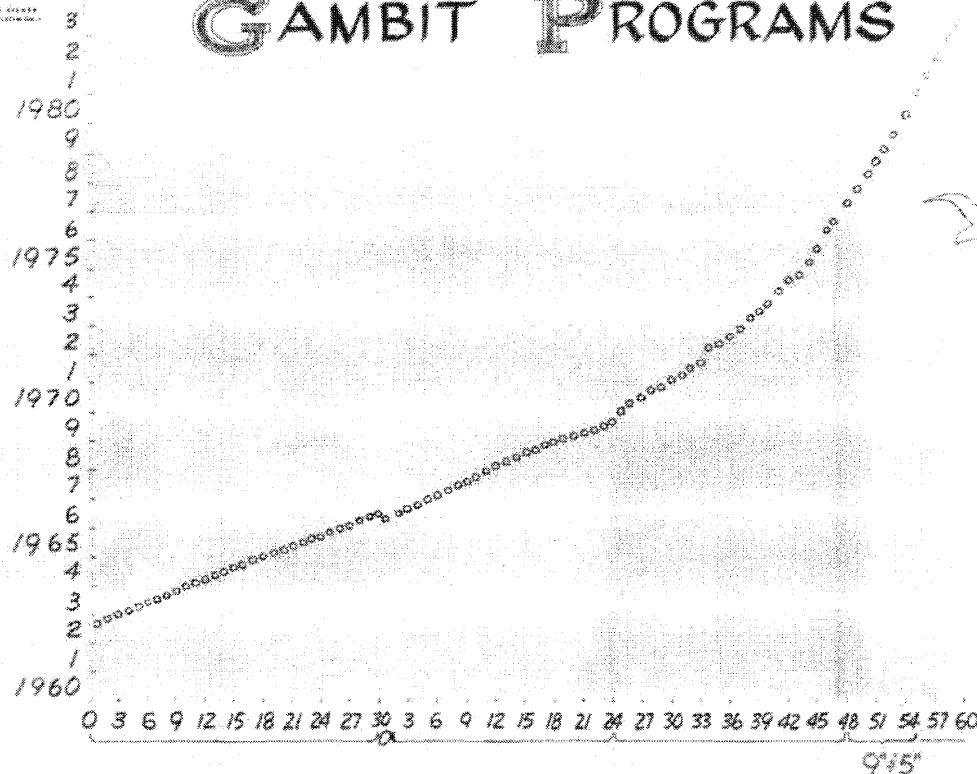
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GAMBIT PROGRAMS



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BOOK CHART OF CHARTS

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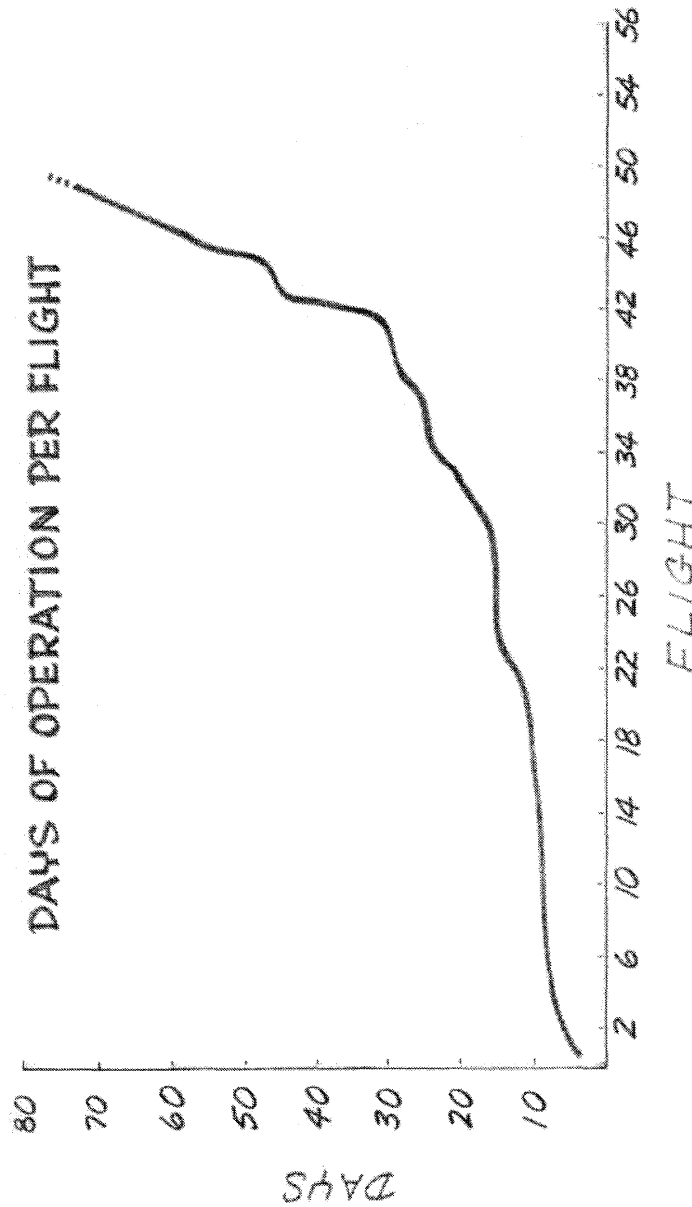
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ADVANCED GAMBIT X



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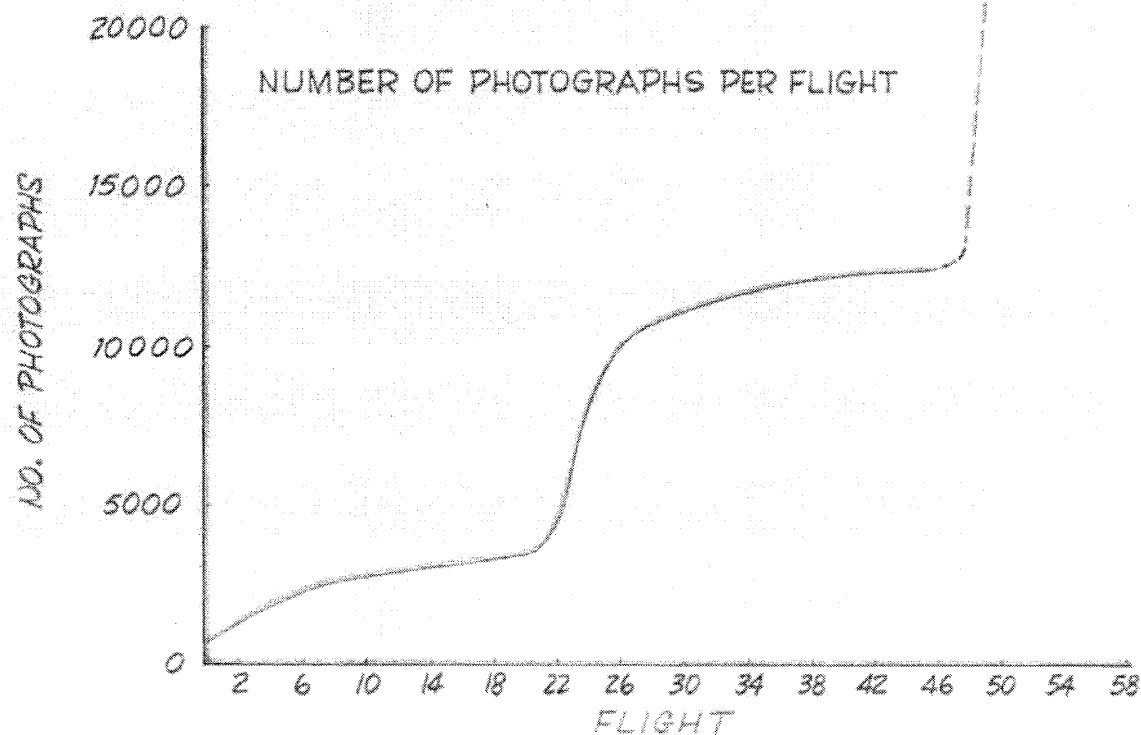
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ADVANCED GAMBIT



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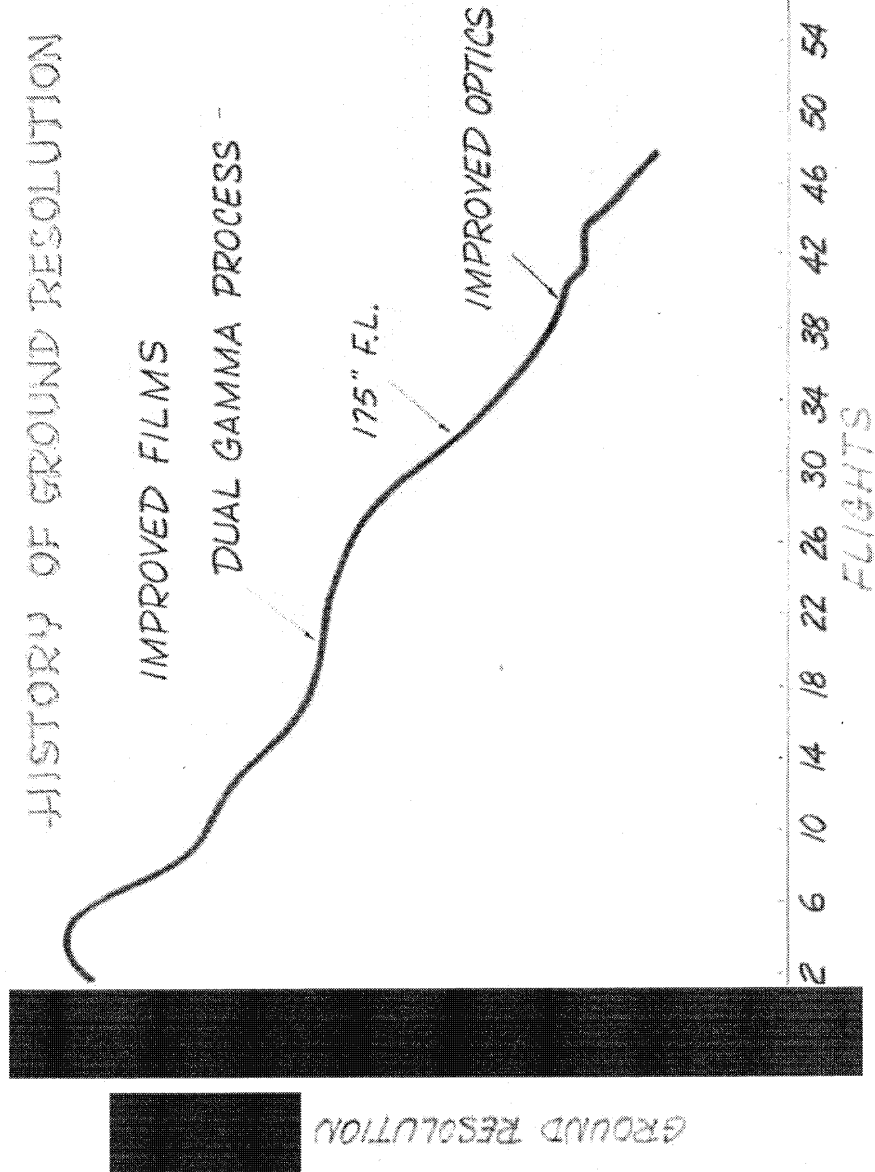
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ADVANCED GAMBIT

HISTORY OF GROUND RESOLUTION



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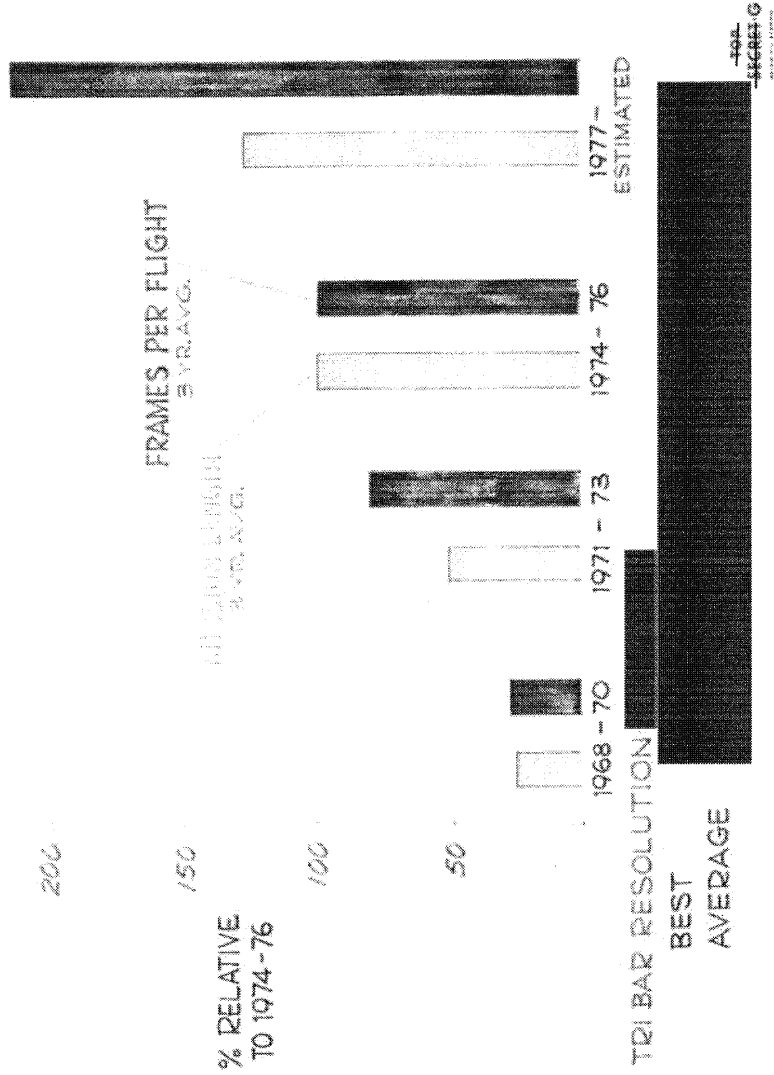
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PERFORMANCE COMPARISONS

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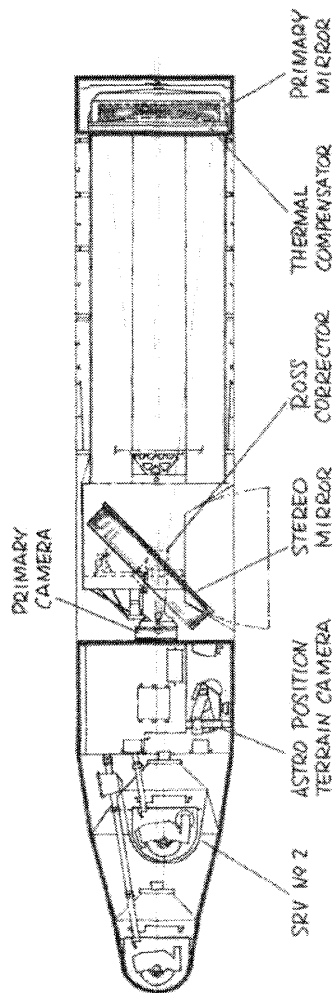
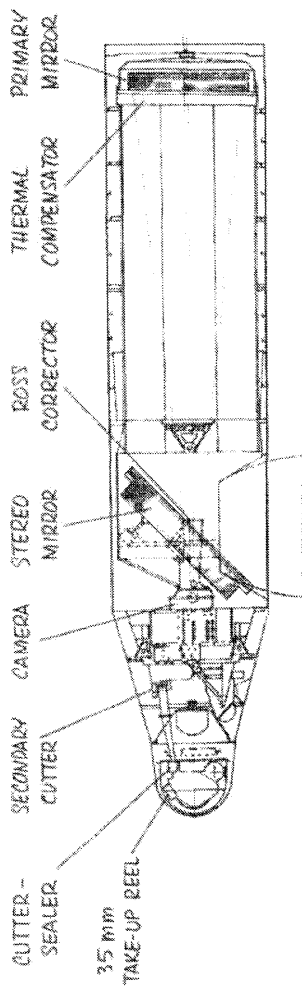
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PROPERTY OF EASTMAN
KODAK COMPANY

G³/B² CONFIGURATIONS



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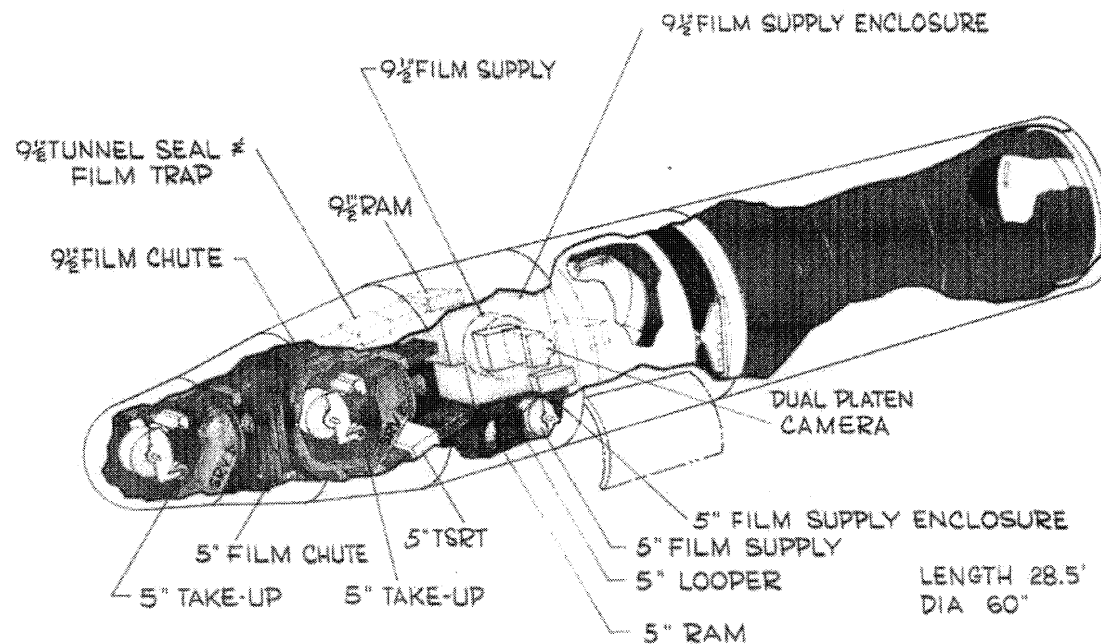
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EKC GAMBIT PHOTOGRAPHIC PAYLOAD SYSTEM
FM-48-54 FLIGHT USE 1977-1980
INCORPORATE 9" & 5" CAMERA SYSTEMS



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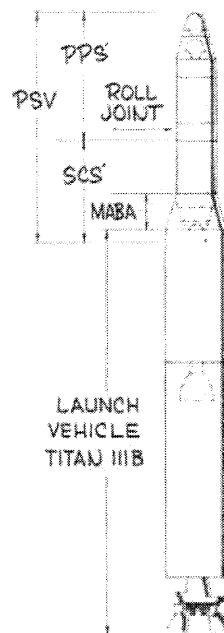
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GAMBIT CONFIGURATION



ON PAD

VEHICLE	LENGTH (ft.)	WEIGHT (lbs.)	ENGINE THRUST (lbs.)
TITAN IIIB			
STAGE 1	77.8	311,000	450,000
STAGE 2	23.3	74,000	102,000
PSV			
SCS	18.3	17,300	17,000
DPS/PAS	30.1	5,300	
TOTALS	149.5	407,600	

ON ORBIT

OVERALL LENGTH (ft.)	48.4
INJECTION WEIGHT (lbs.)	9,000
PROPULSIVE EXPENDABLES (lbs.)	300
TOTAL FILM WEIGHT (lbs.)	160
SATELLITE RECOVERY VEHICLE WEIGHT (lbs.)	400
RECOVERY VEHICLE WEIGHT AT AIR SNATCH (lbs.)	200

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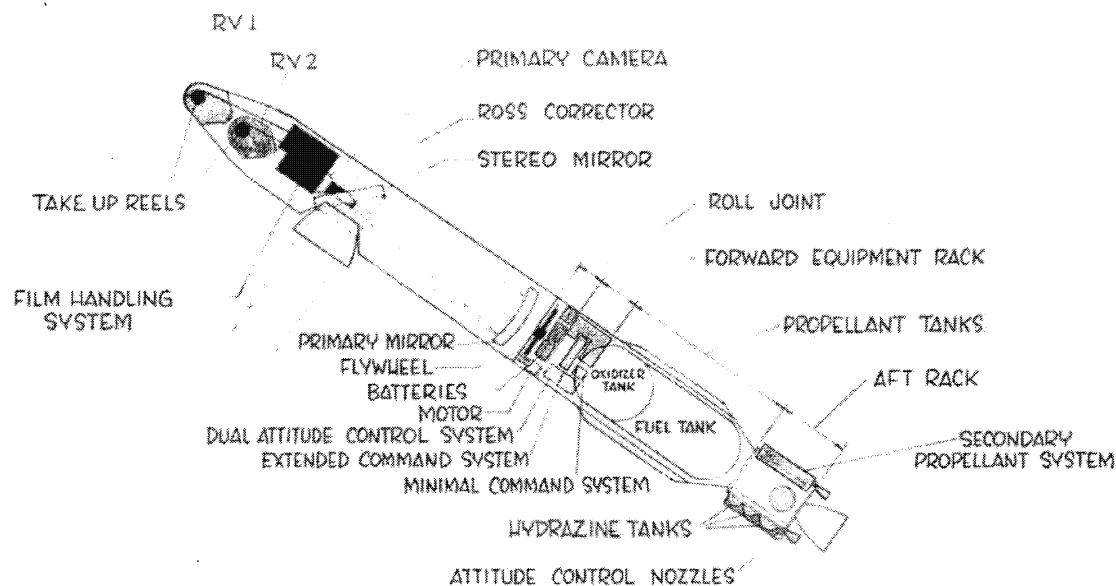
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ORBITING VEHICLE CONFIGURATION



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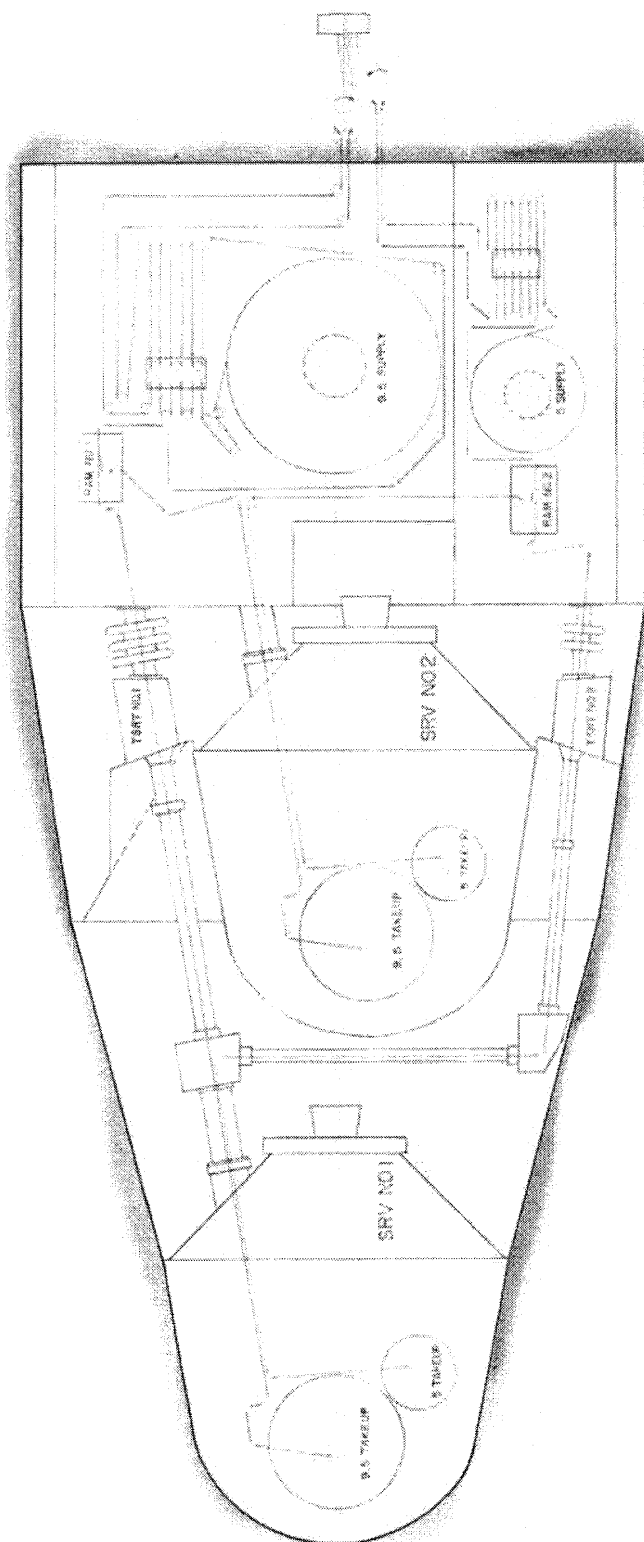
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DUAL PLATEN CONFIGURATION



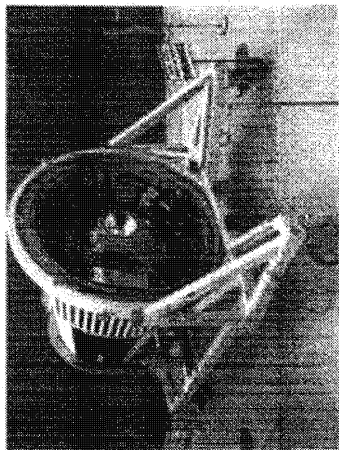
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SEM/DRM

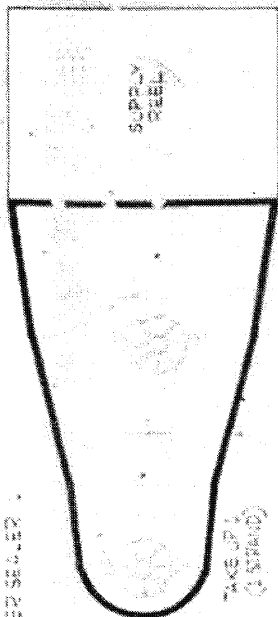
FM 42-47

TUNNEL SEAL RECORD TRAP ENCLOSURE
AFT BACK UP CUTTER
SPLICER

CUTTER SEALER 2

BUS SHIELD

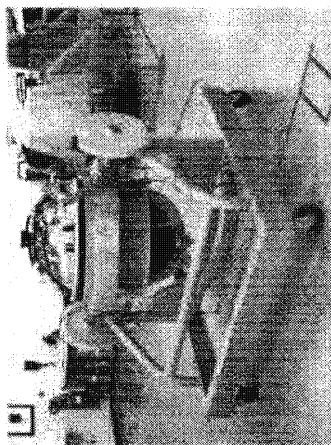
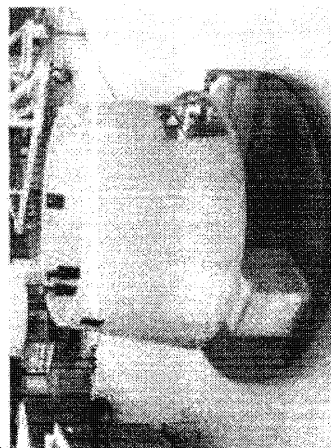
CUTTER SEALER



CAMERA

TAKE UP (1 STAND)
SEPARATION
FLANGES
ELECTRIC ADAPTER
TAKE UP 2
RETRIC PUMPS

SUPPLY
REEL



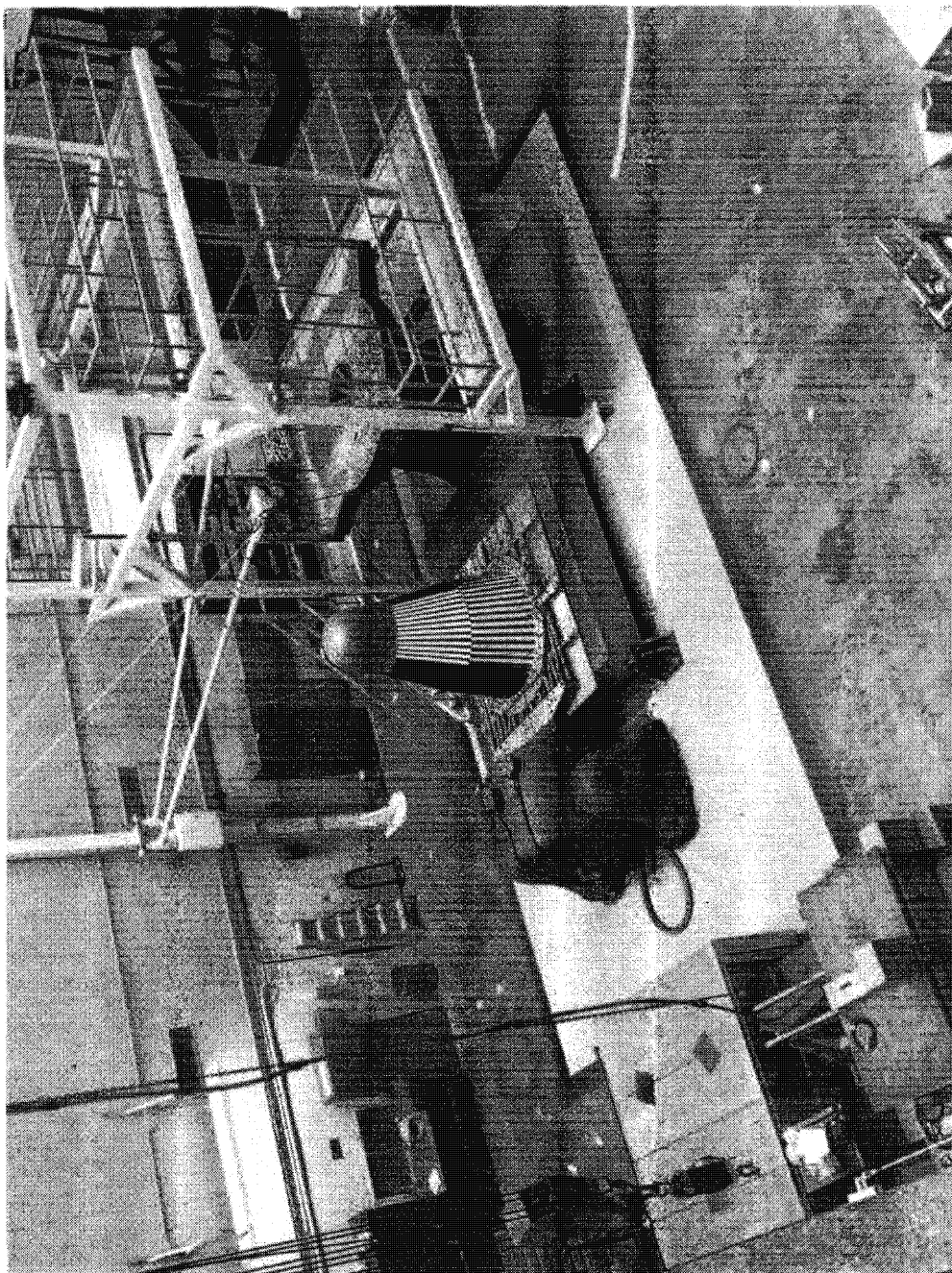
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TOP
SECRET-G

SEM/DRM

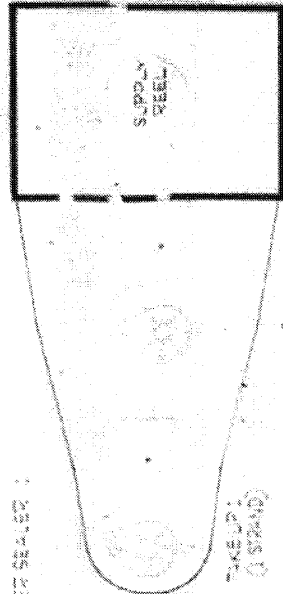
FM 42-47

TUNNEL SEAL RECORD TRIP ENCLOSURE
AFT BACKUP BUTTER
SPUDER

OUTER SEALER 2

BLAST SHIELD

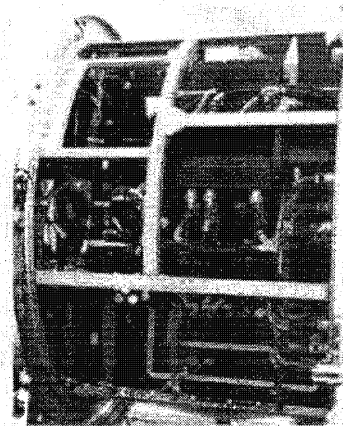
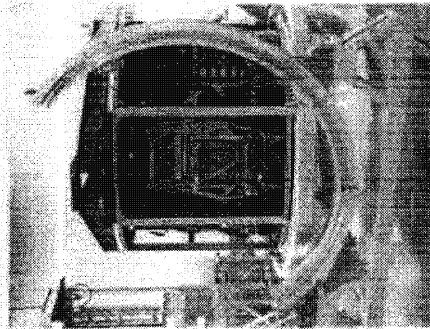
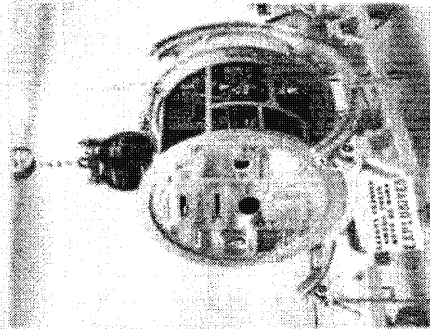
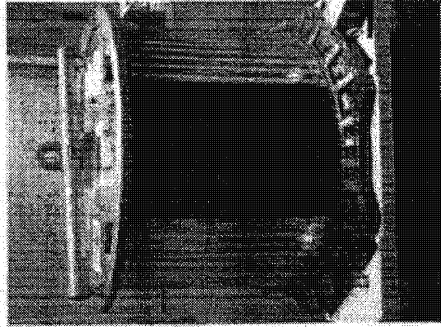
INNER SEALER 1



CAMERA

SUPPLY REEL

TUNNEL SEALER (1 STRAND)
SEPARATION BELT
DOOR
CLOSURE
EJECTABLE ADAPTER



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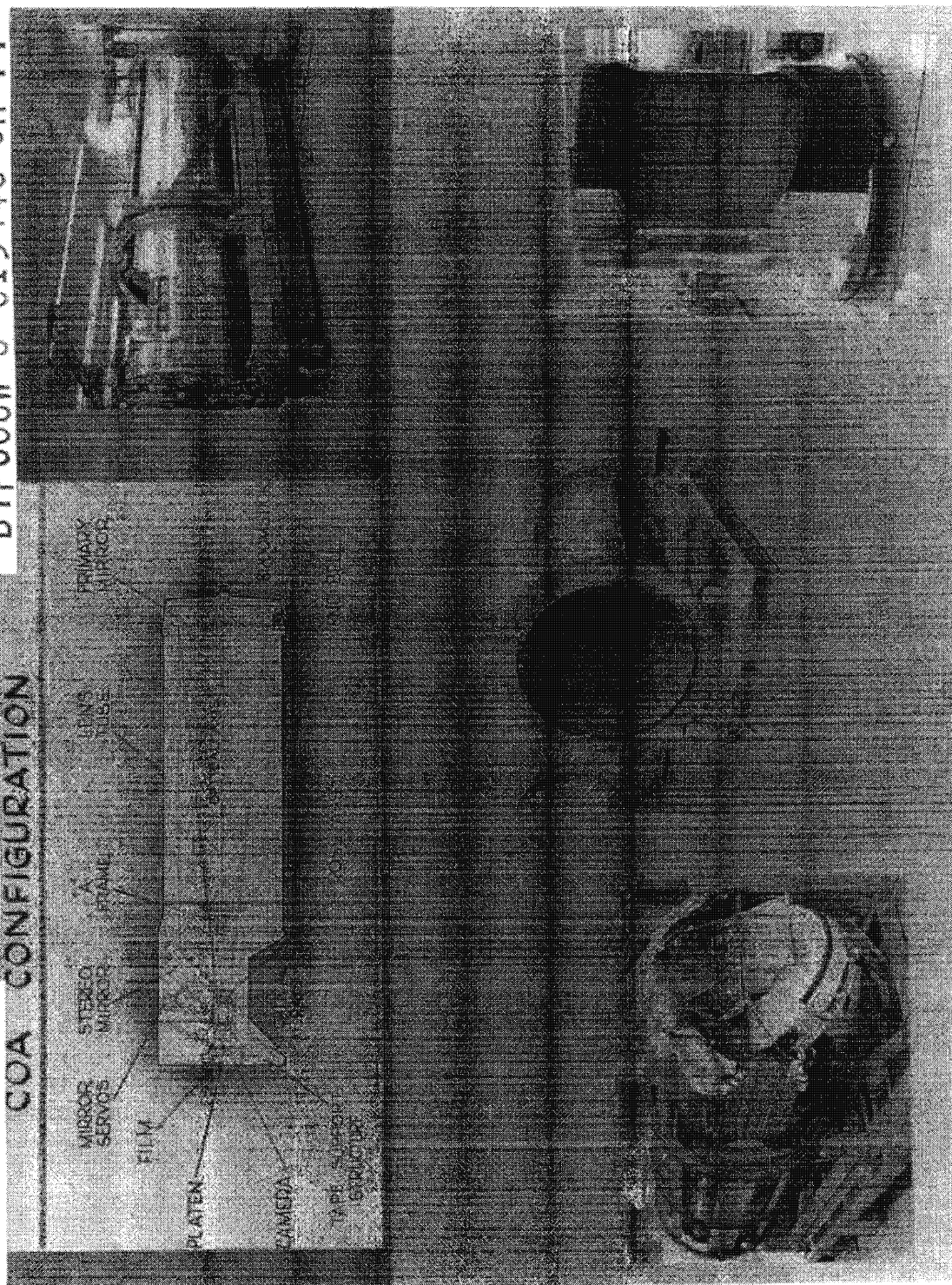
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COA CONFIGURATION



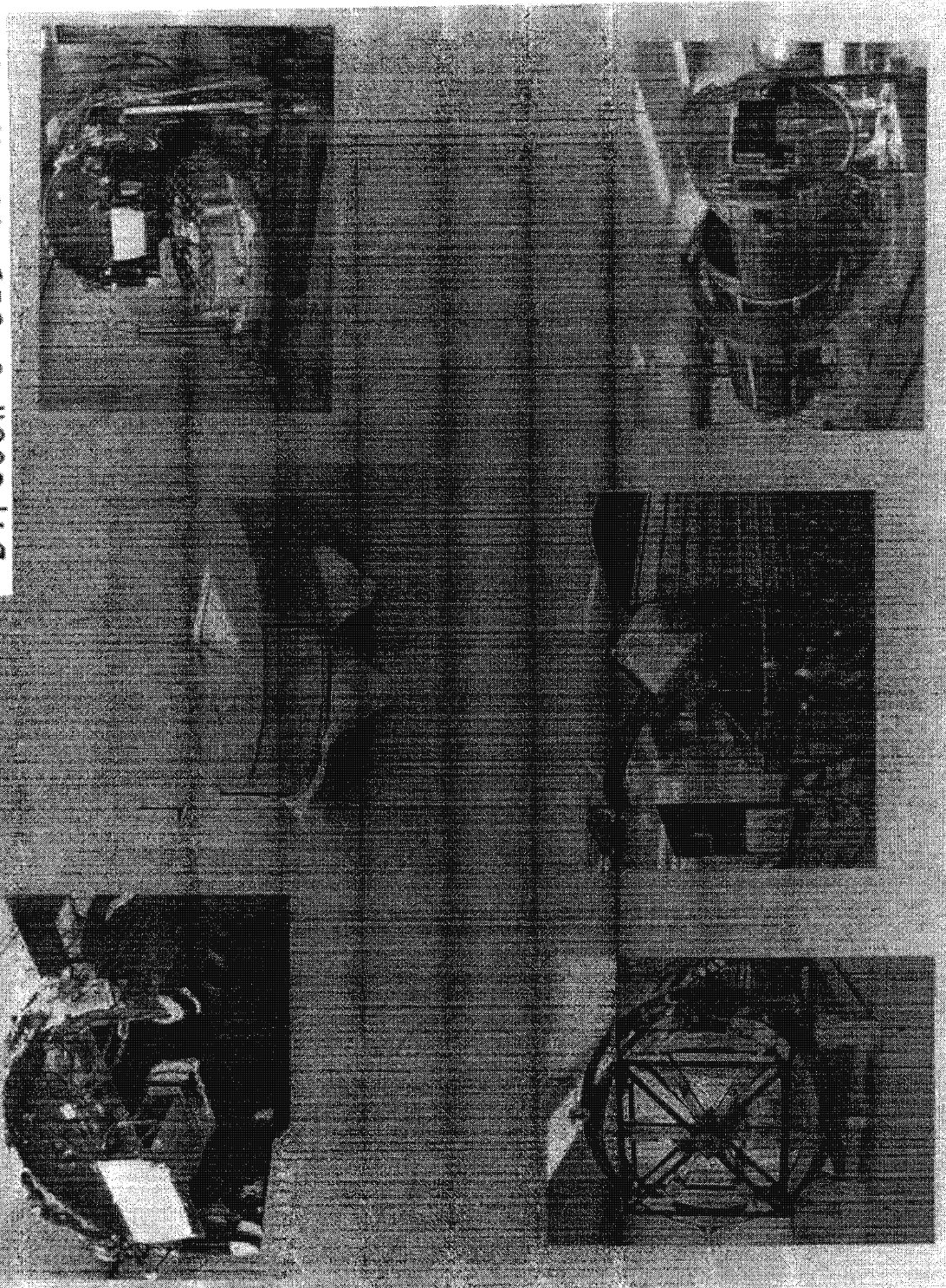
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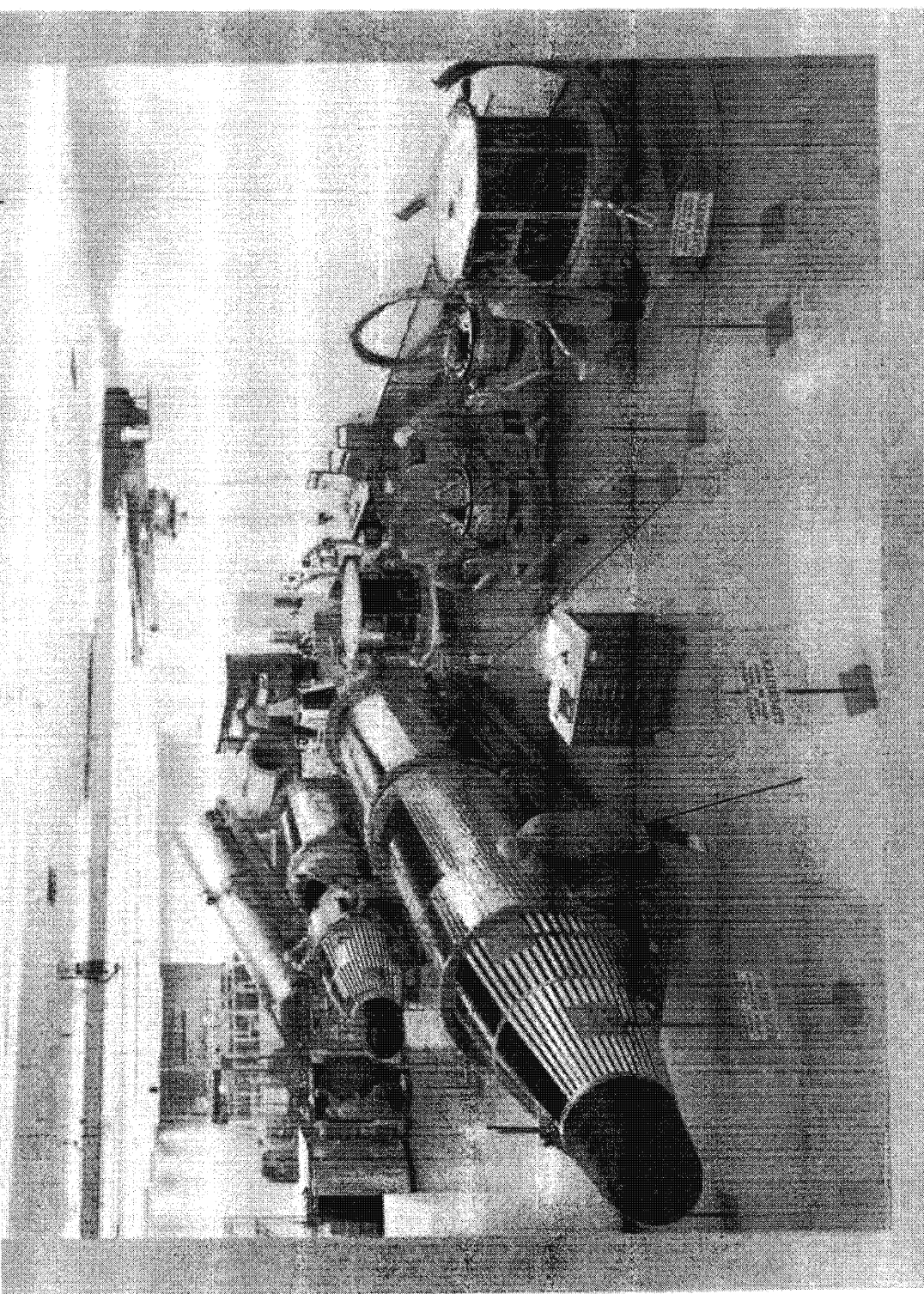


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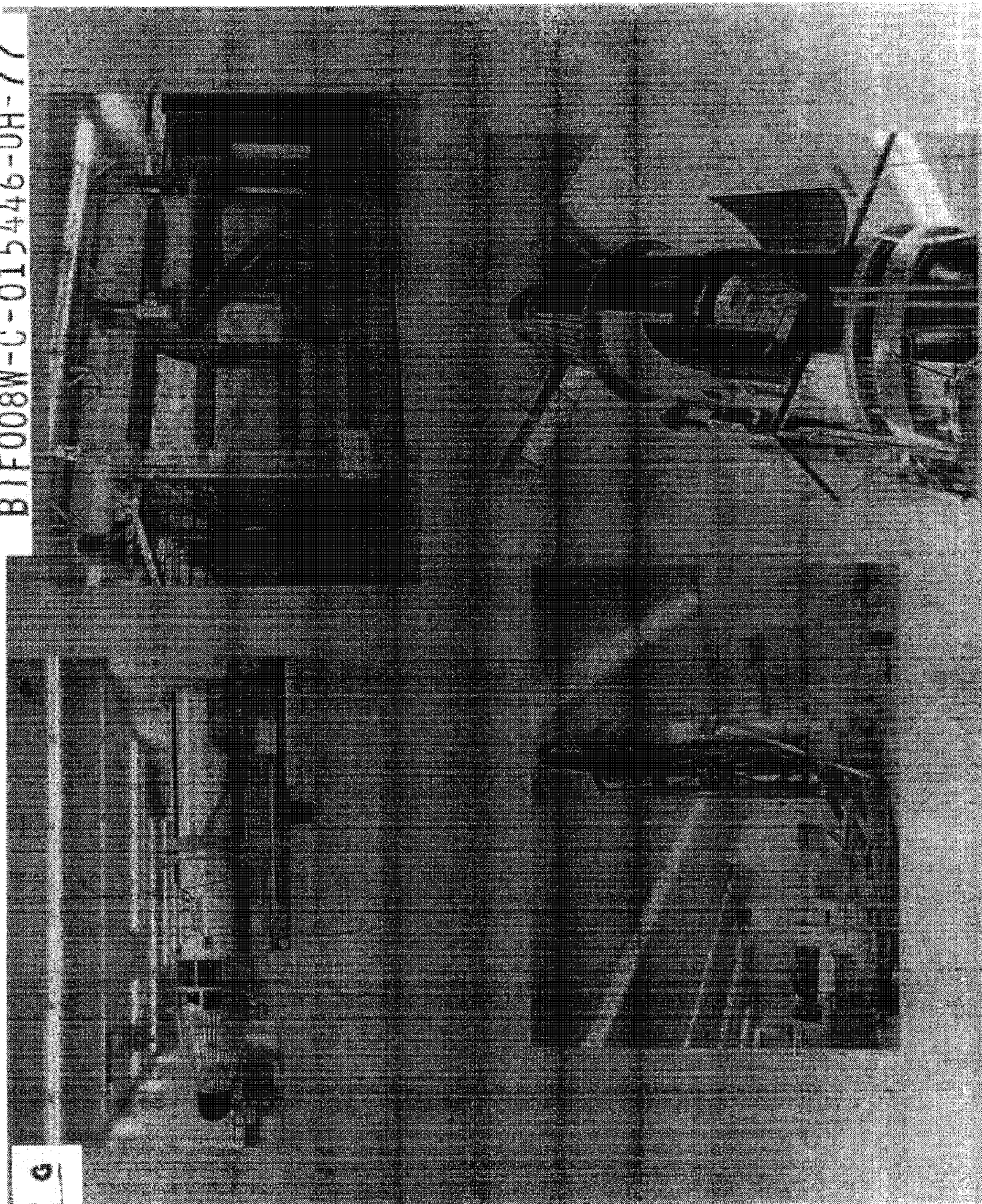
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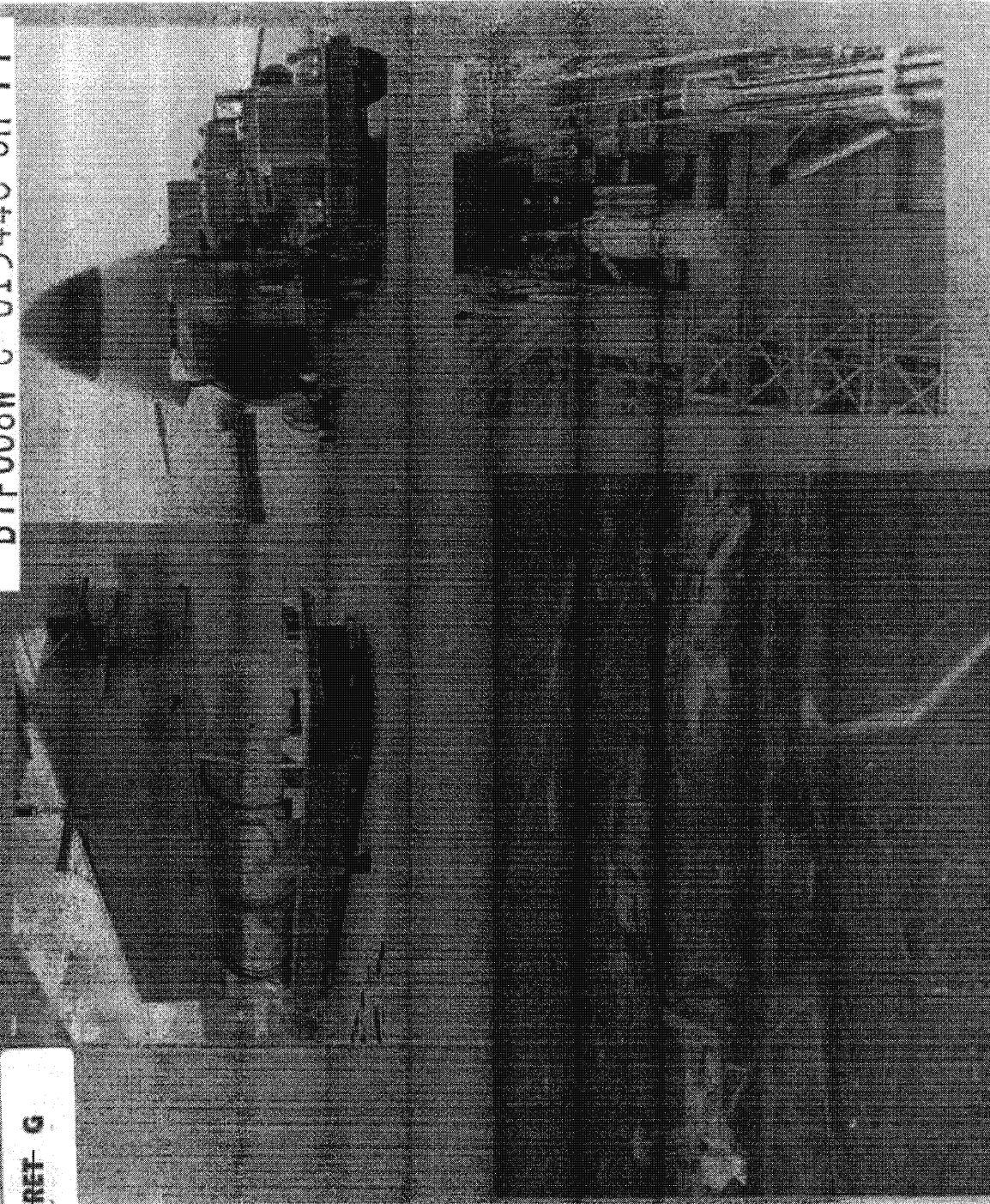


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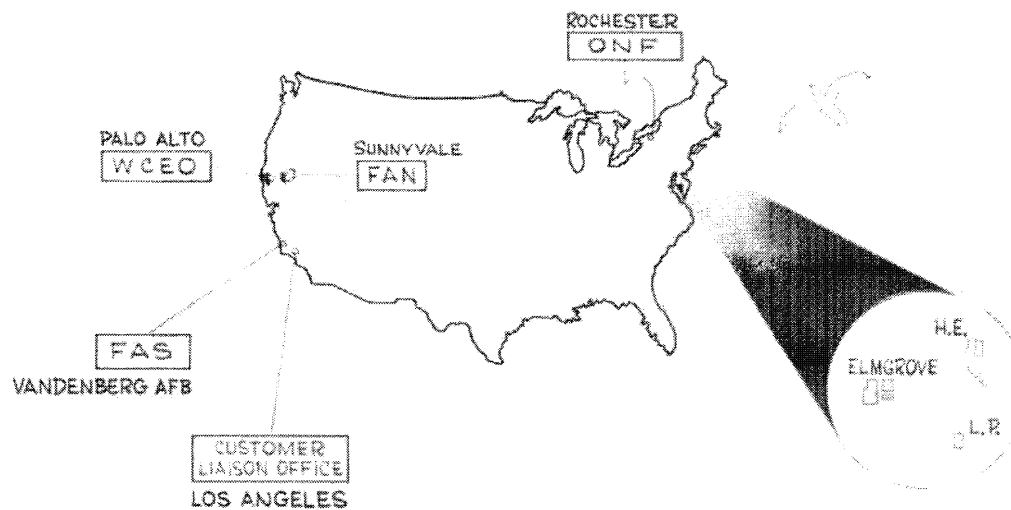
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LOCATION of PROGRAM ACTIVITIES



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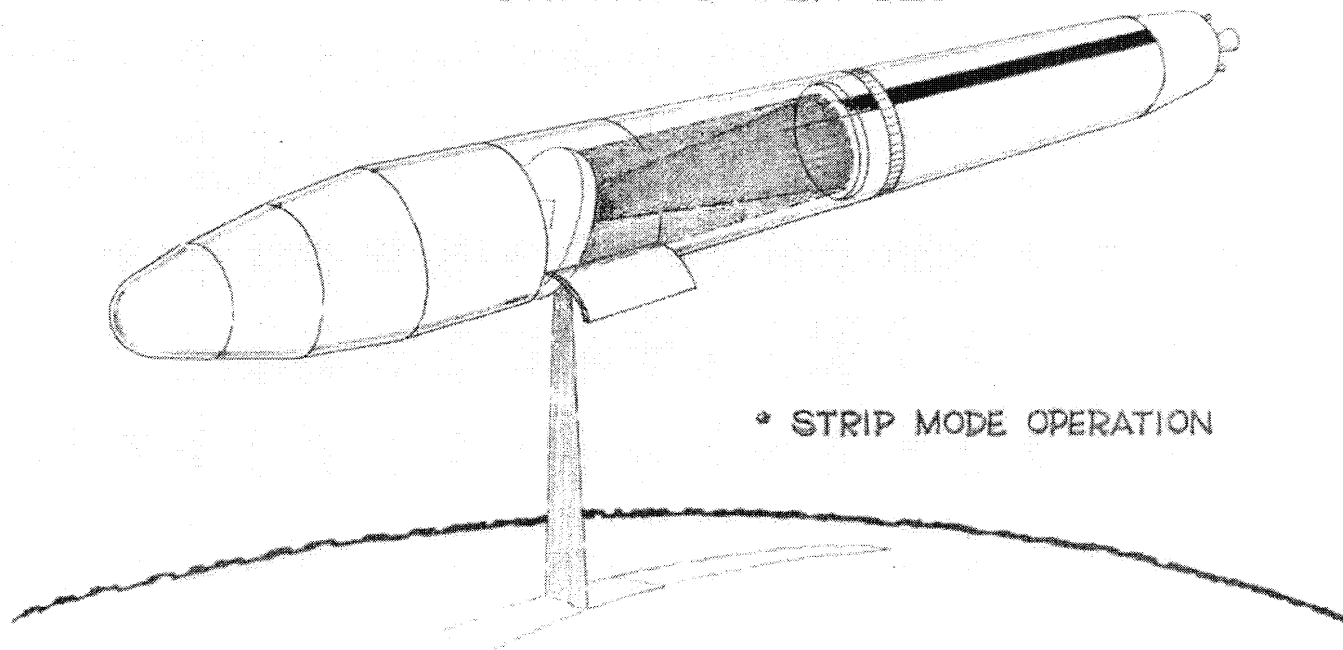
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ADVANCED GAMBIT ORBITING VEHICLE



* STRIP MODE OPERATION

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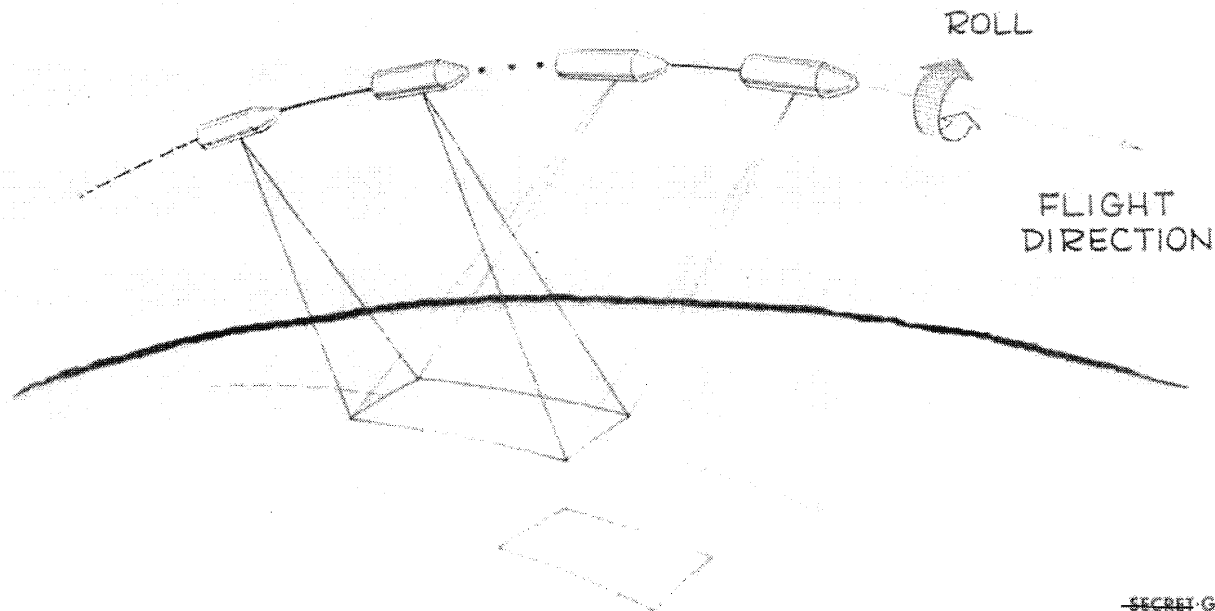
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ADVANCED GAMBIT

OPERATIONAL MODES



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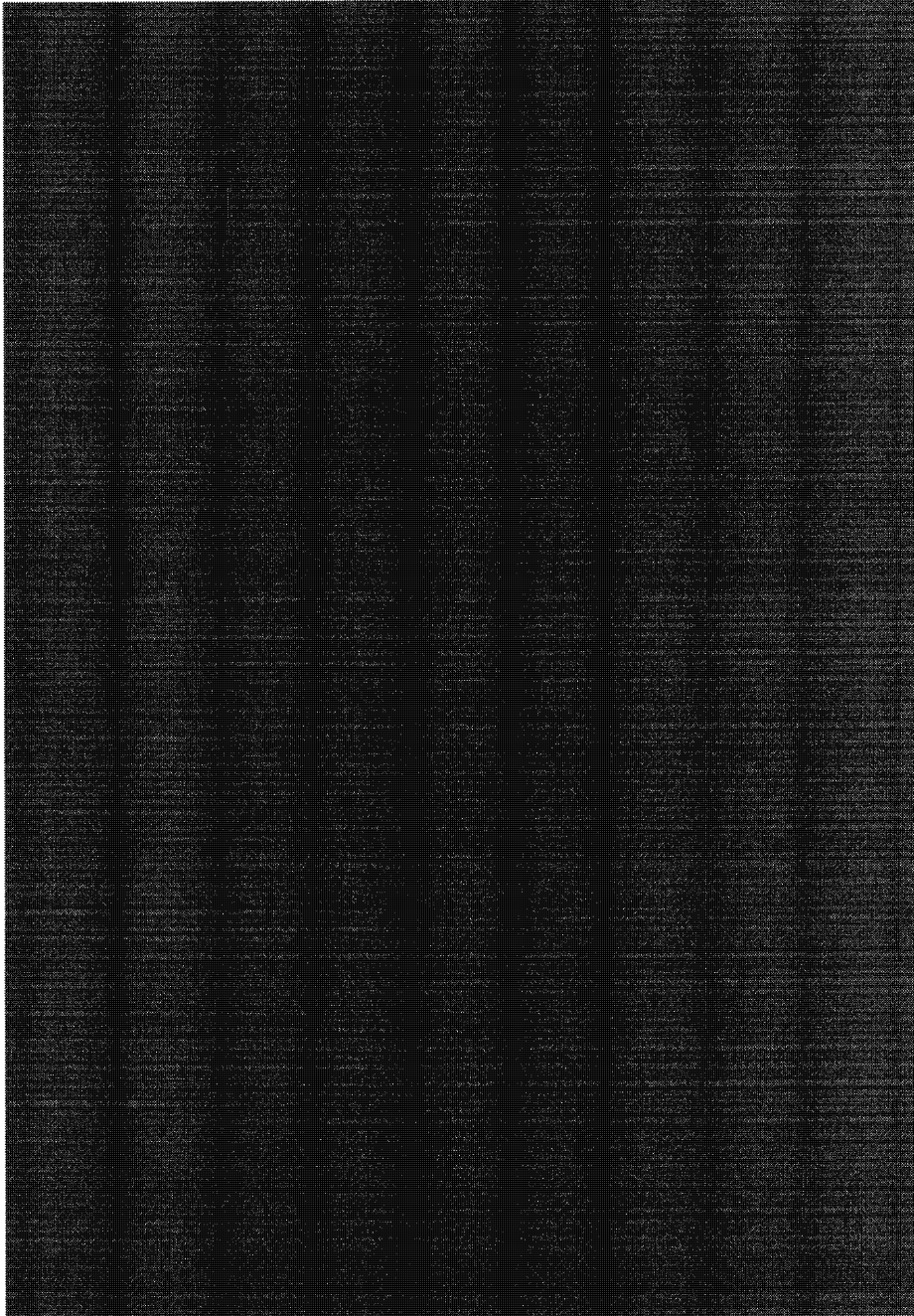
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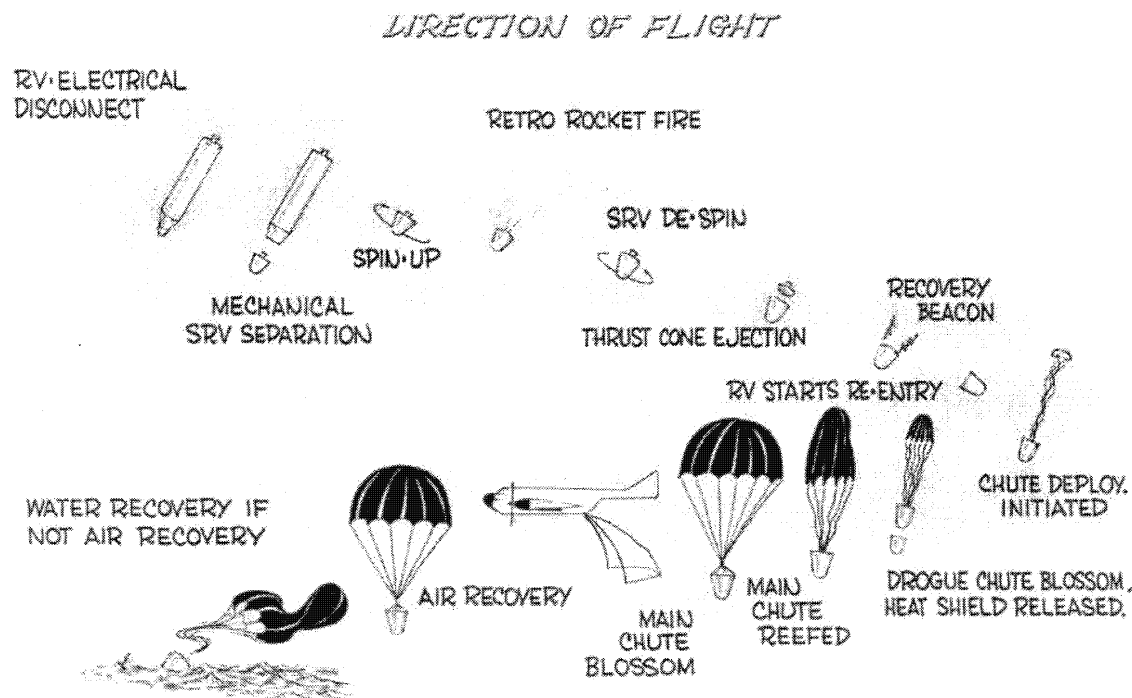
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RE-ENTRY SEQUENCE



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OPERATIONAL PERFORMANCE SCORE HISTORY

CONTRACT - 0009 (37 - 47)

OM	%	OM	%	OM	%
37	100	42	100	47	100
38	100	43	100		
39	100	44	100		
40	100	45	100		
41	100	46	100		

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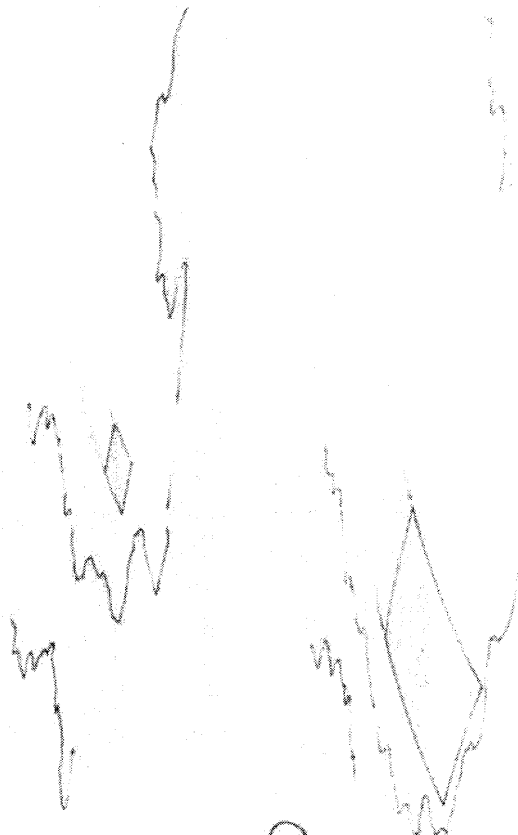
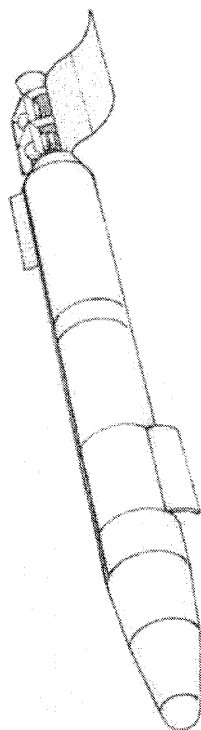
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GAMBIT DUAL MODE CAPABILITY

○ SURVEILLANCE
LOW ALTITUDE (75 NM)
40 DAYS

and

○ SEARCH
HIGH ALTITUDE (500 NM)
80 DAYS



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GAMBIT (KH-8) IMAGERY

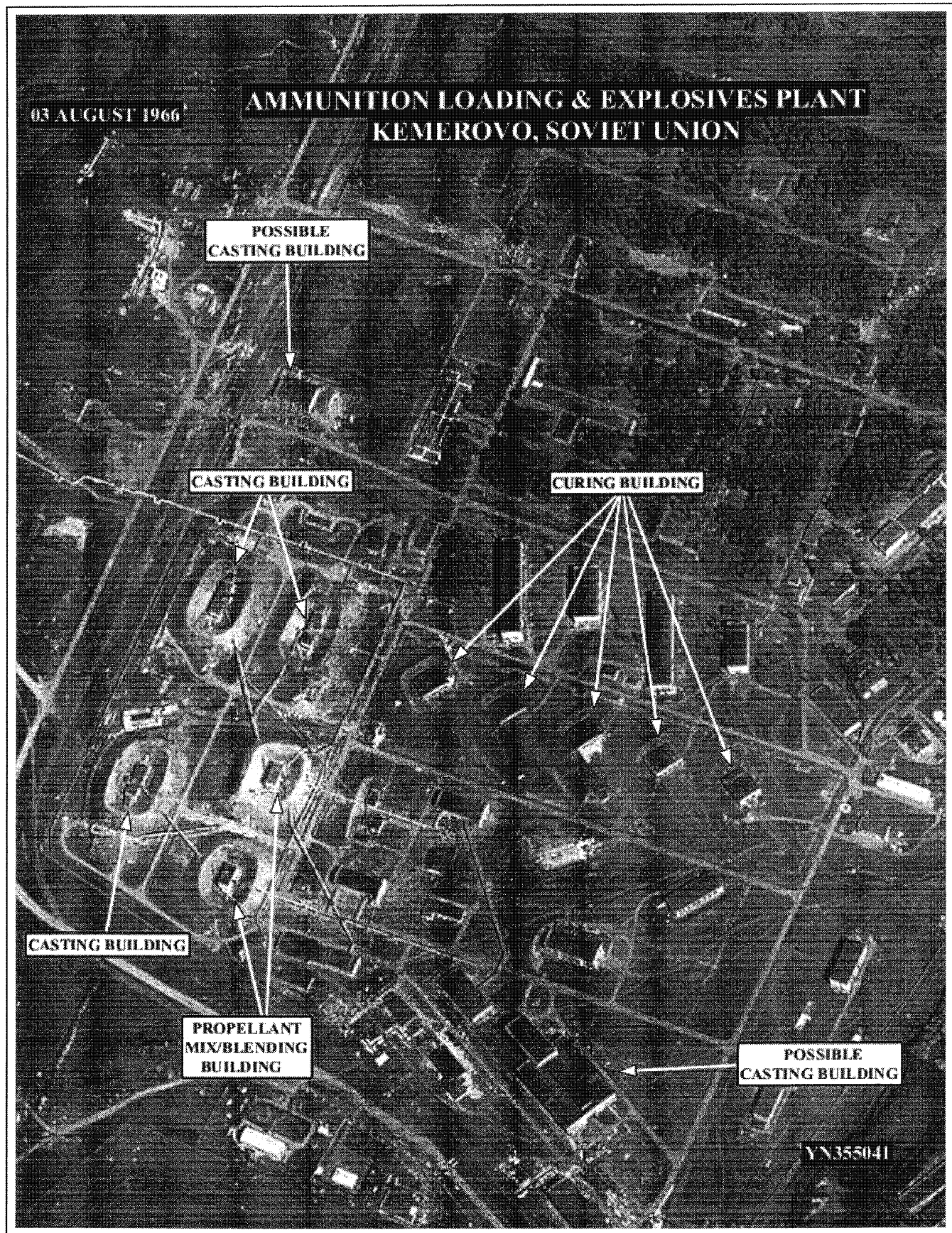
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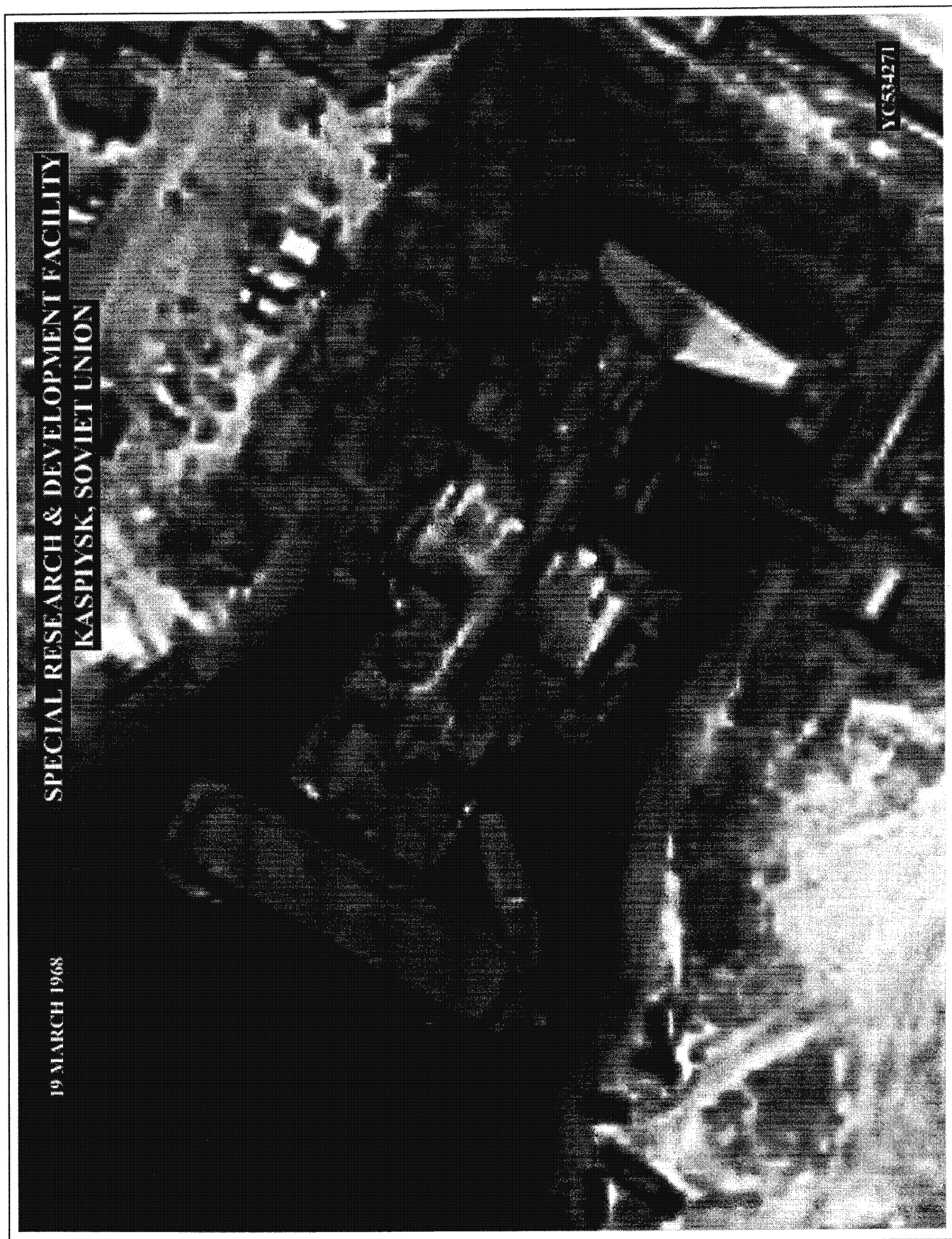


CENTER FOR THE STUDY OF
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CHANTILLY, VA

APRIL 2012

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SPECIAL RESEARCH & DEVELOPMENT FACILITY
KASPIYSK, SOVIET UNION

19 MARCH 1968

YCS34271

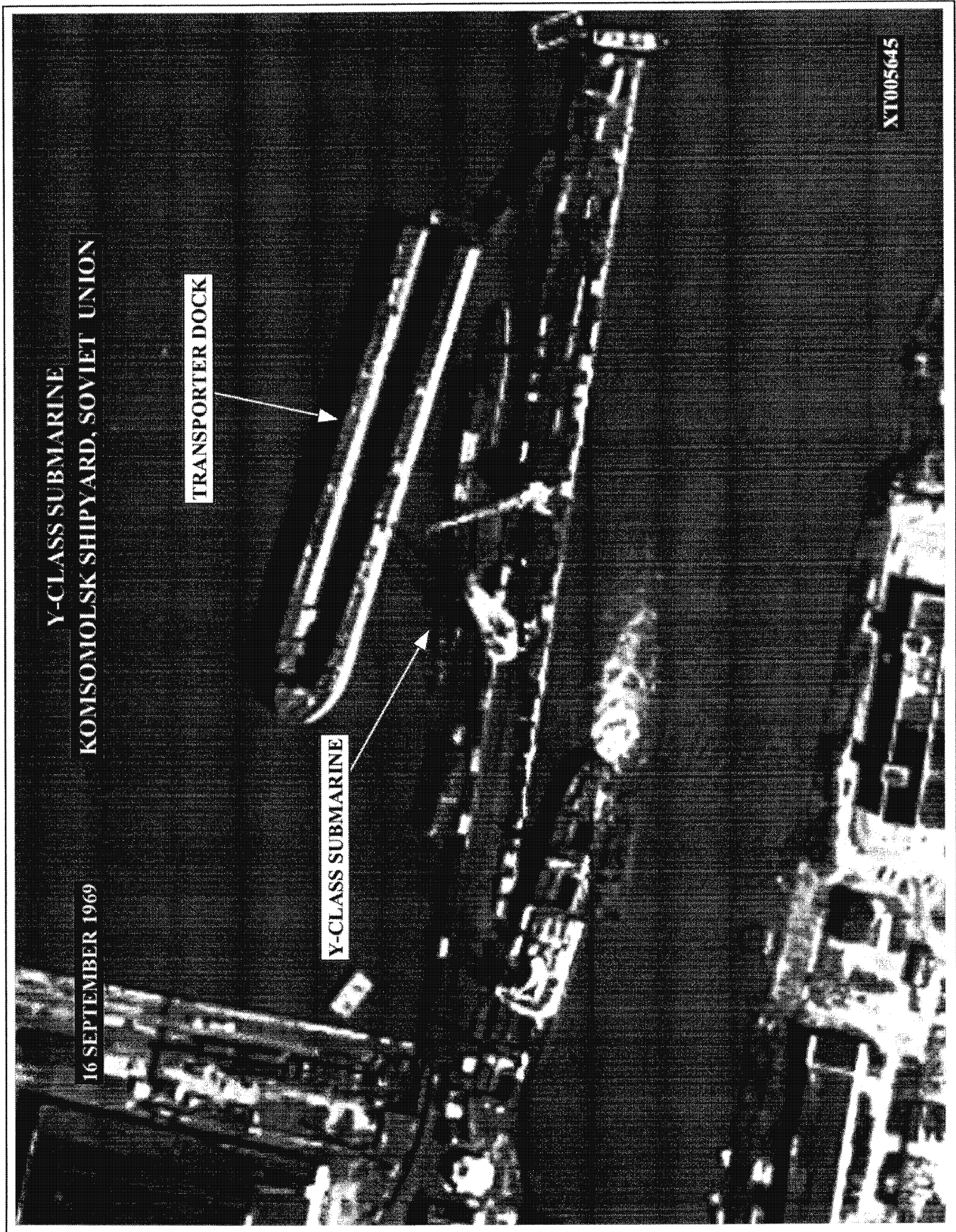
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GAMBUT (KII-8) IMAGERY

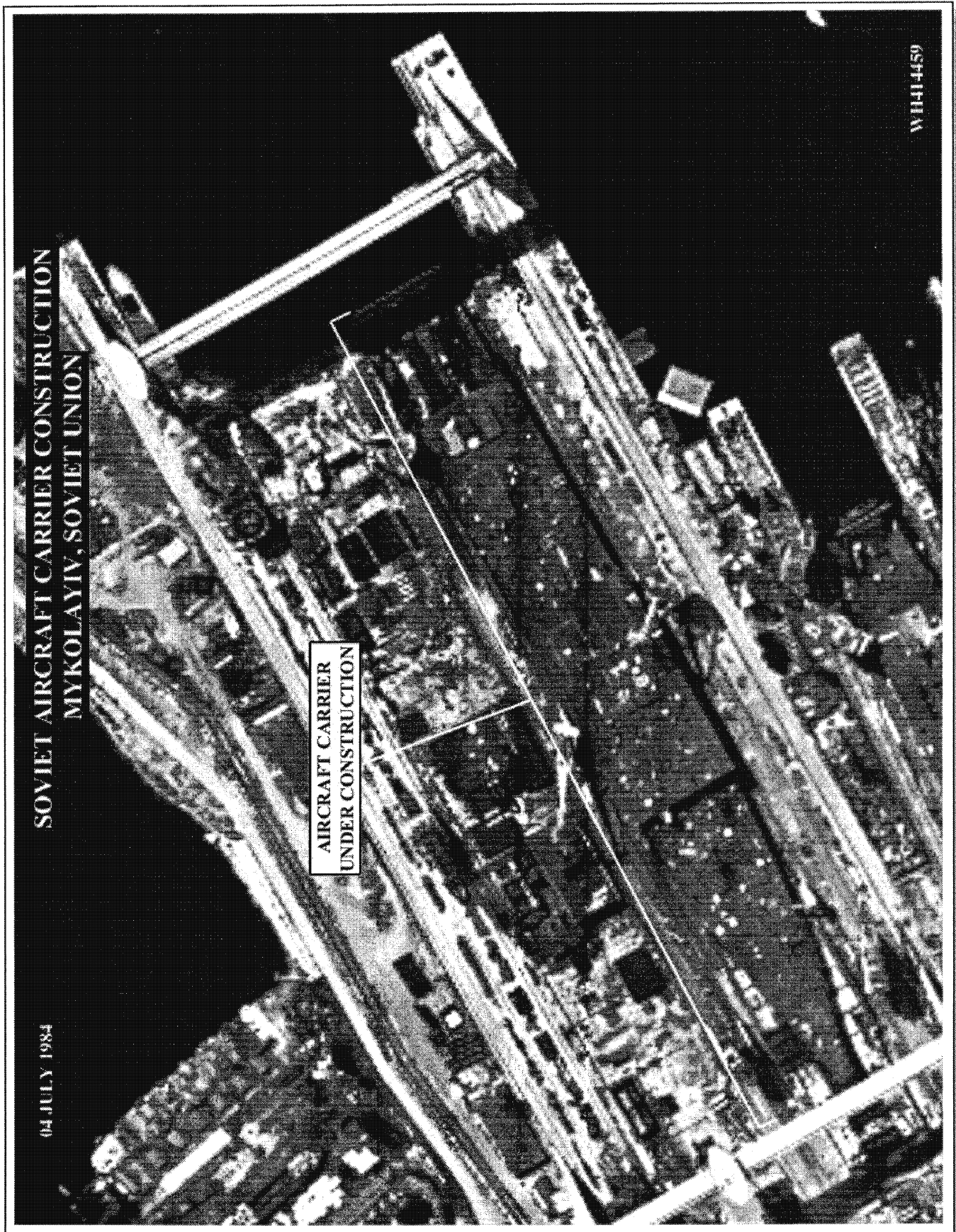


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11 AUGUST 1984

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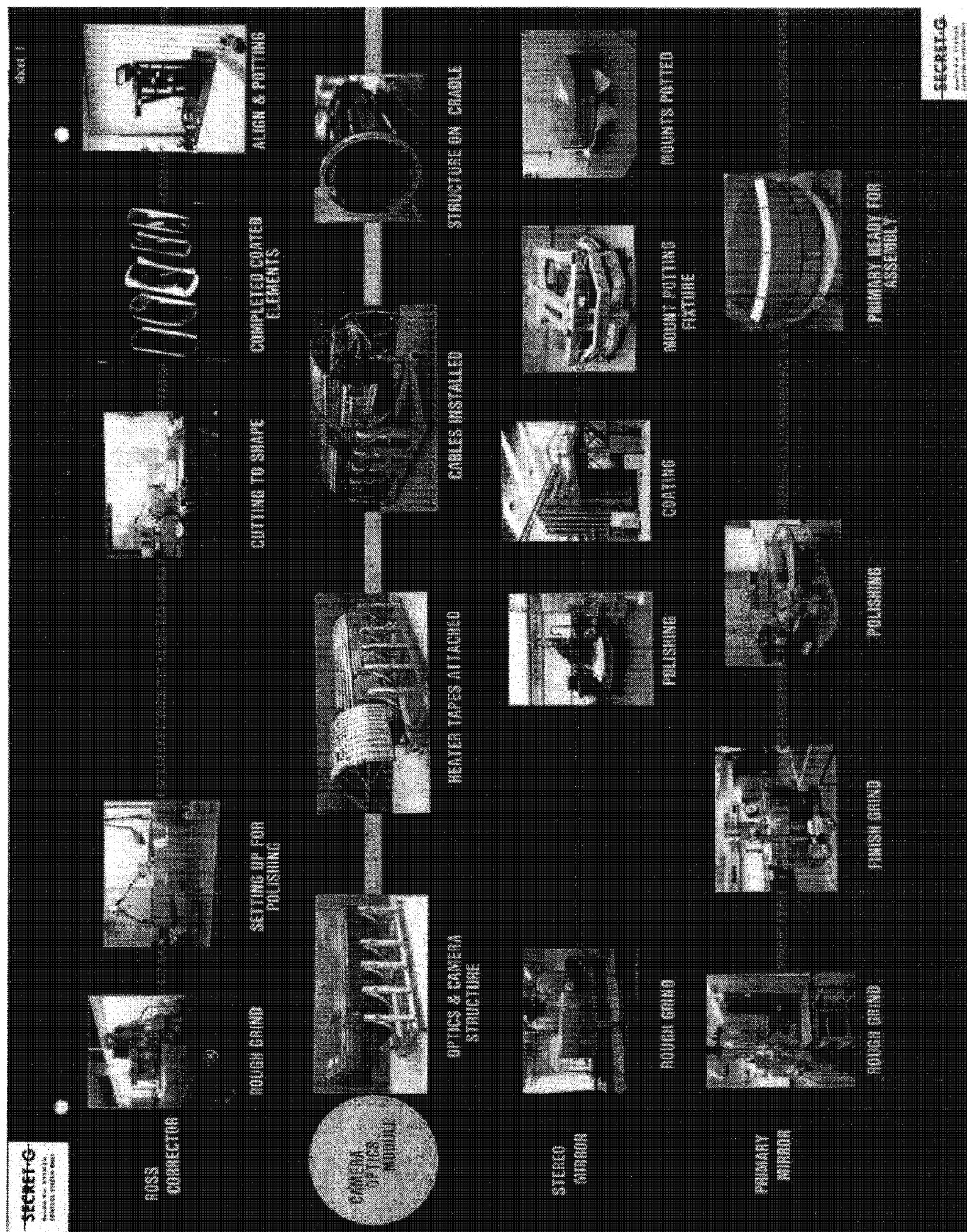
GAMBIT PROGRAM
YELLOW BRICK ROAD
PRESENTATION



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CHANTILLY, VA

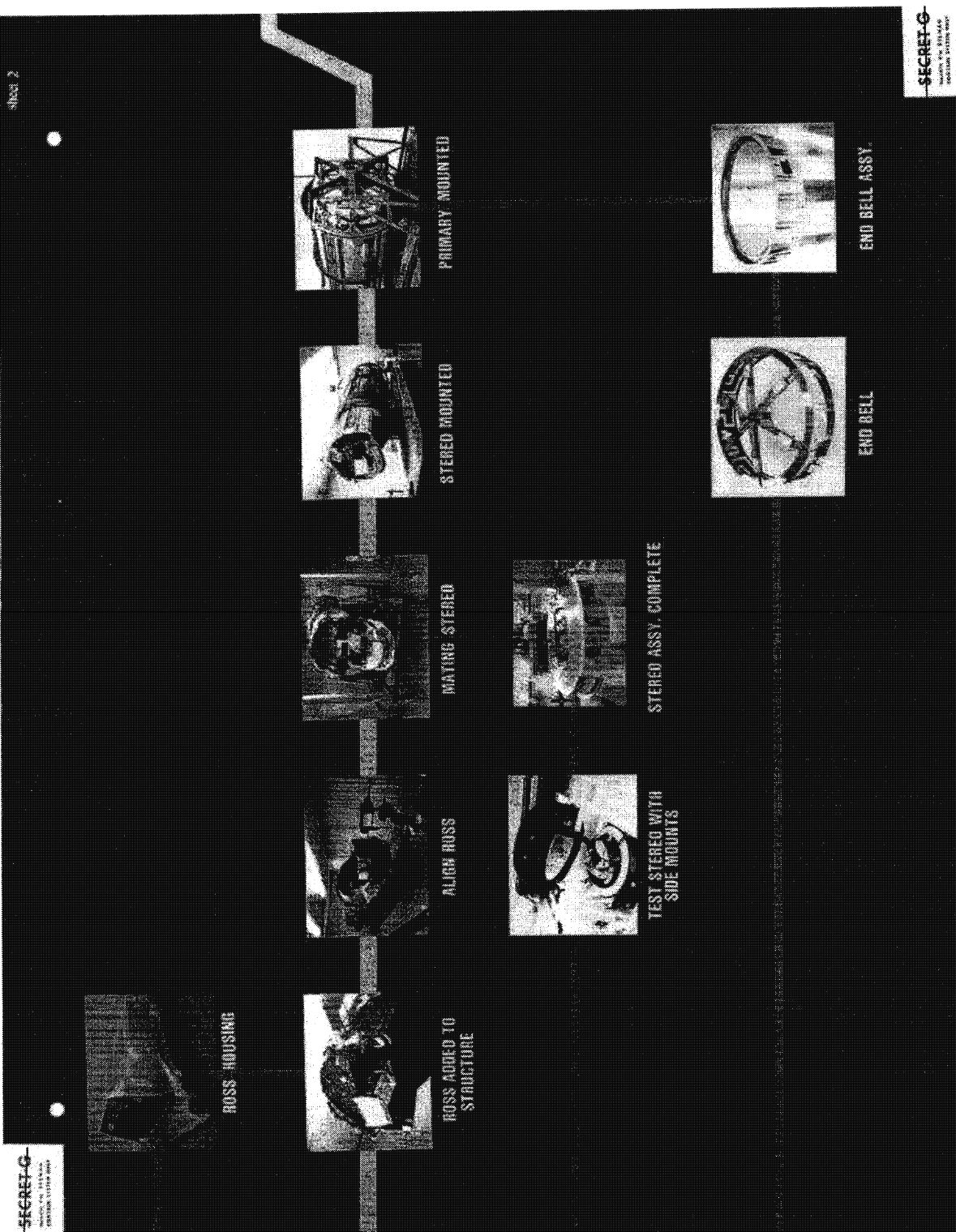
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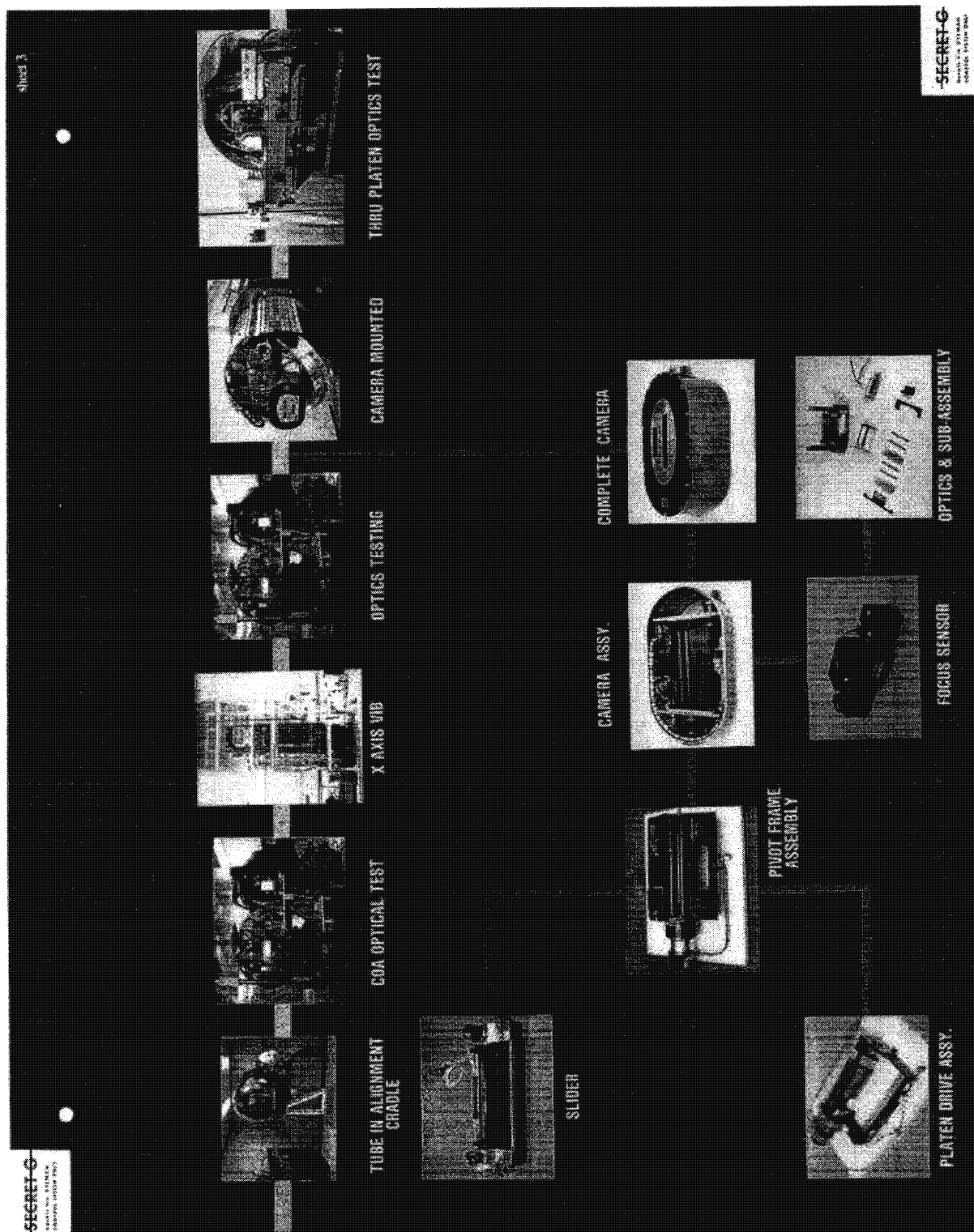
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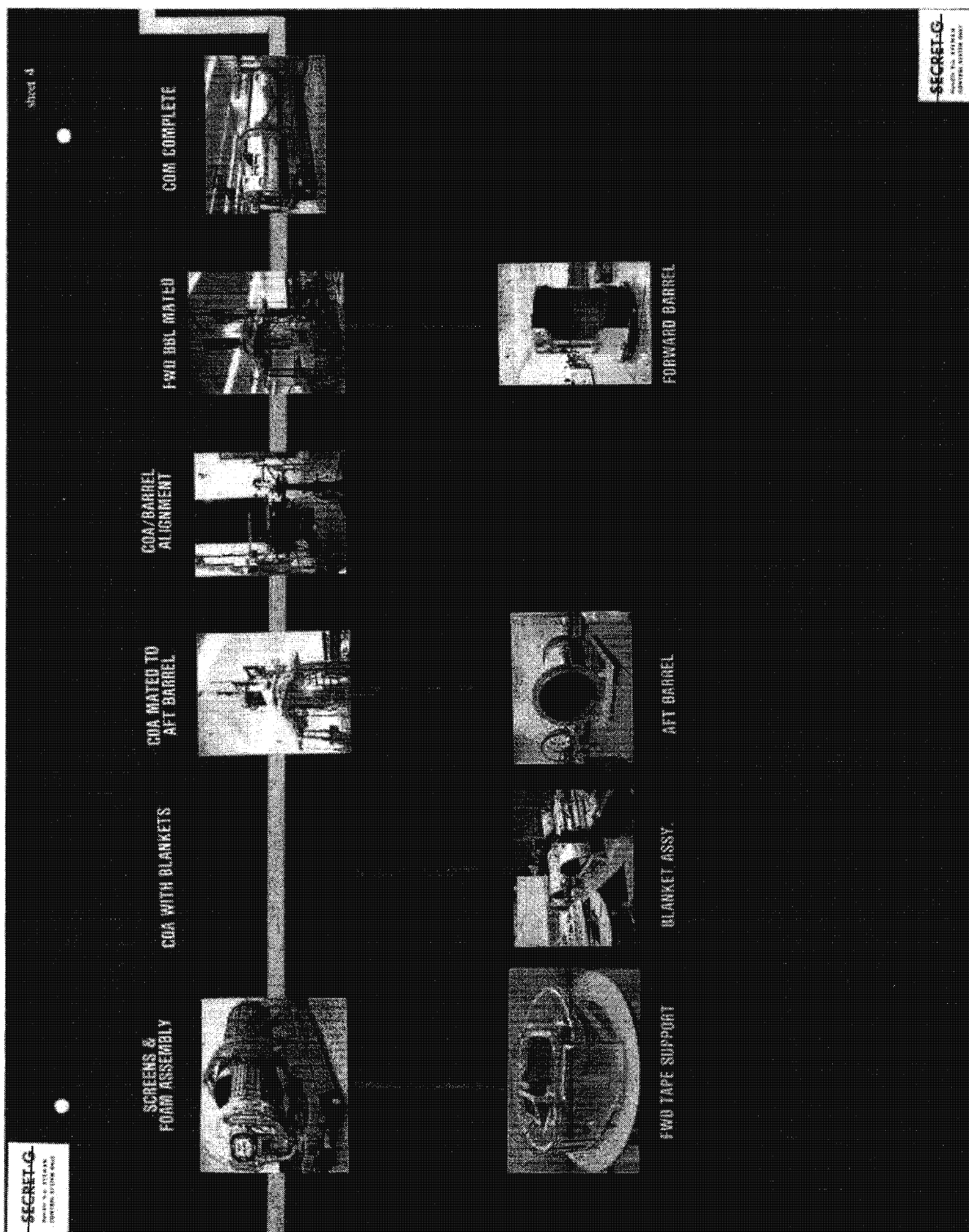


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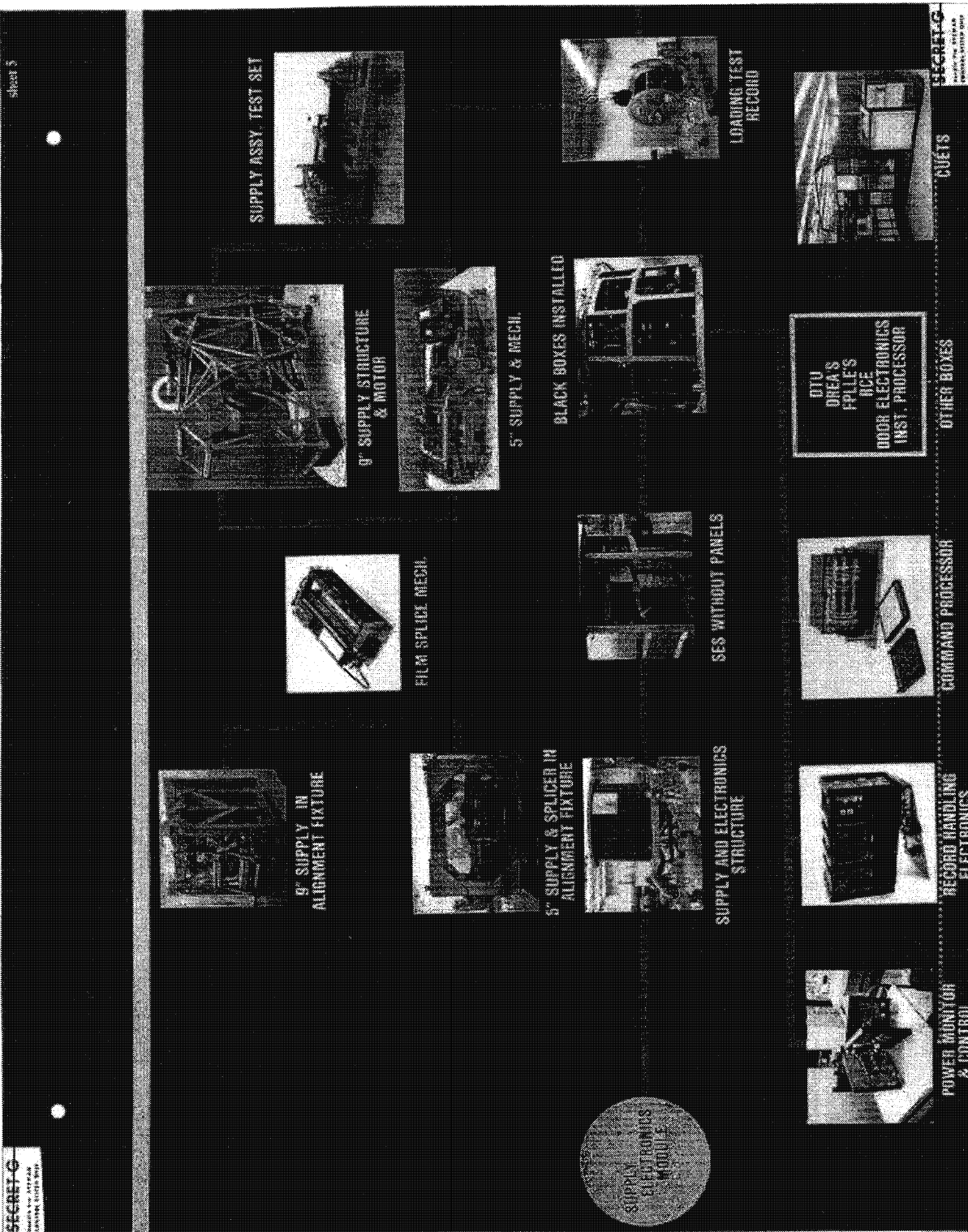


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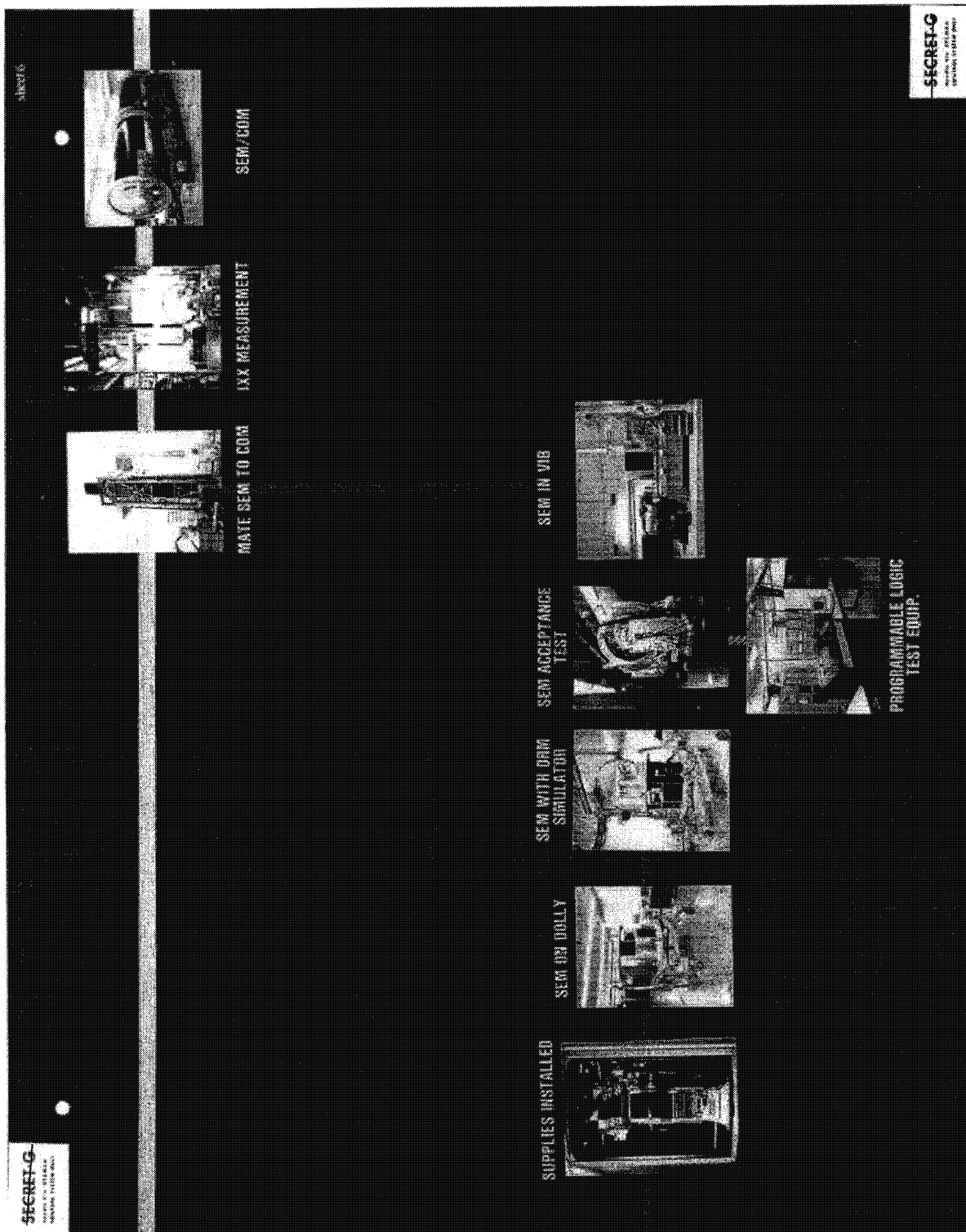
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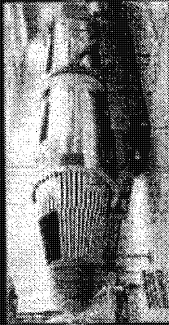


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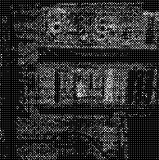
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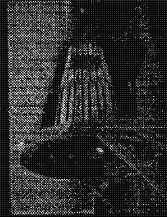
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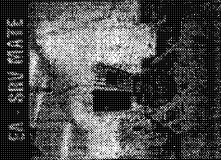
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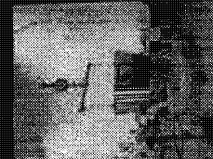
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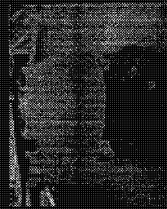
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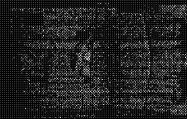
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FIXED ADAPTER



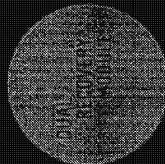
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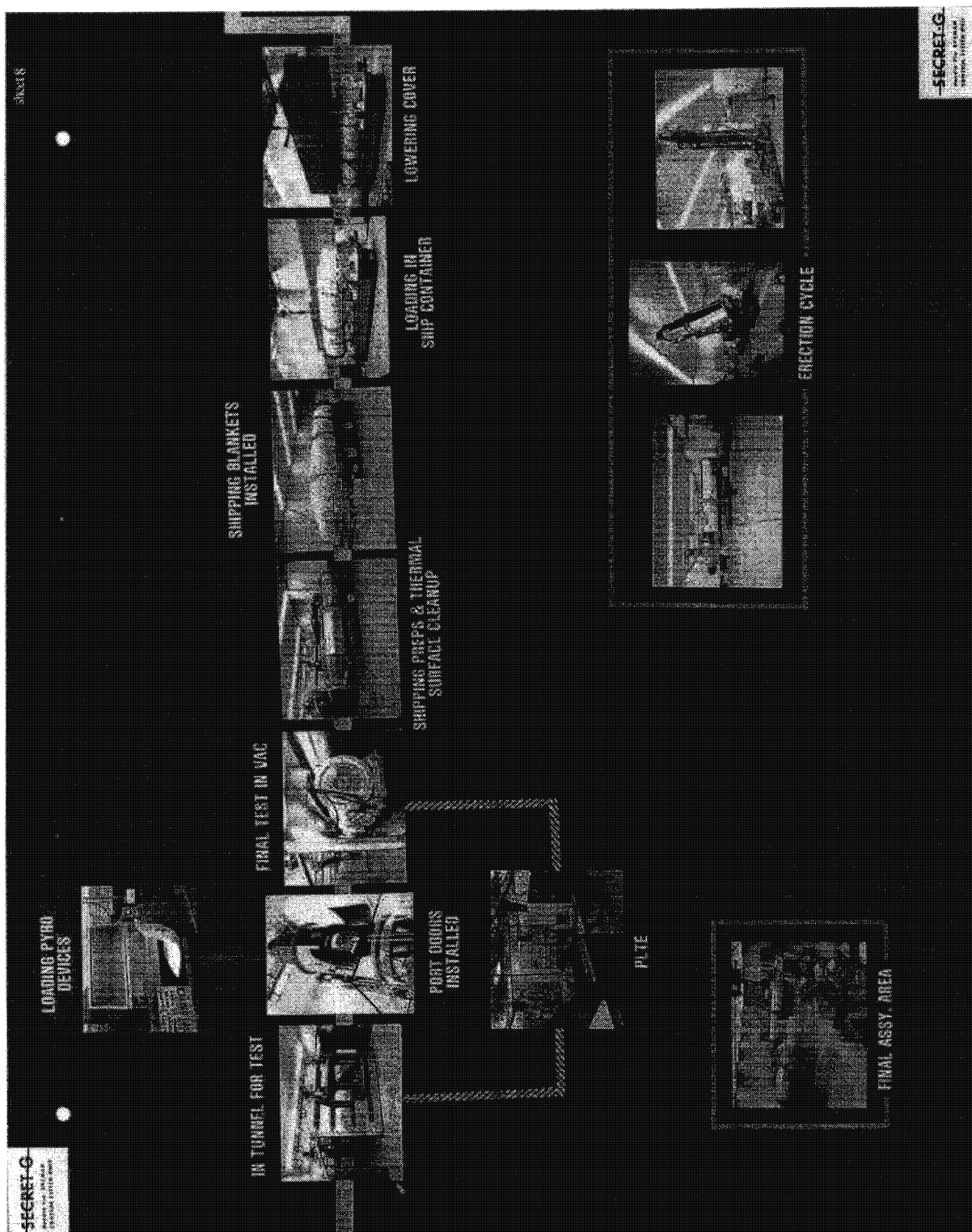
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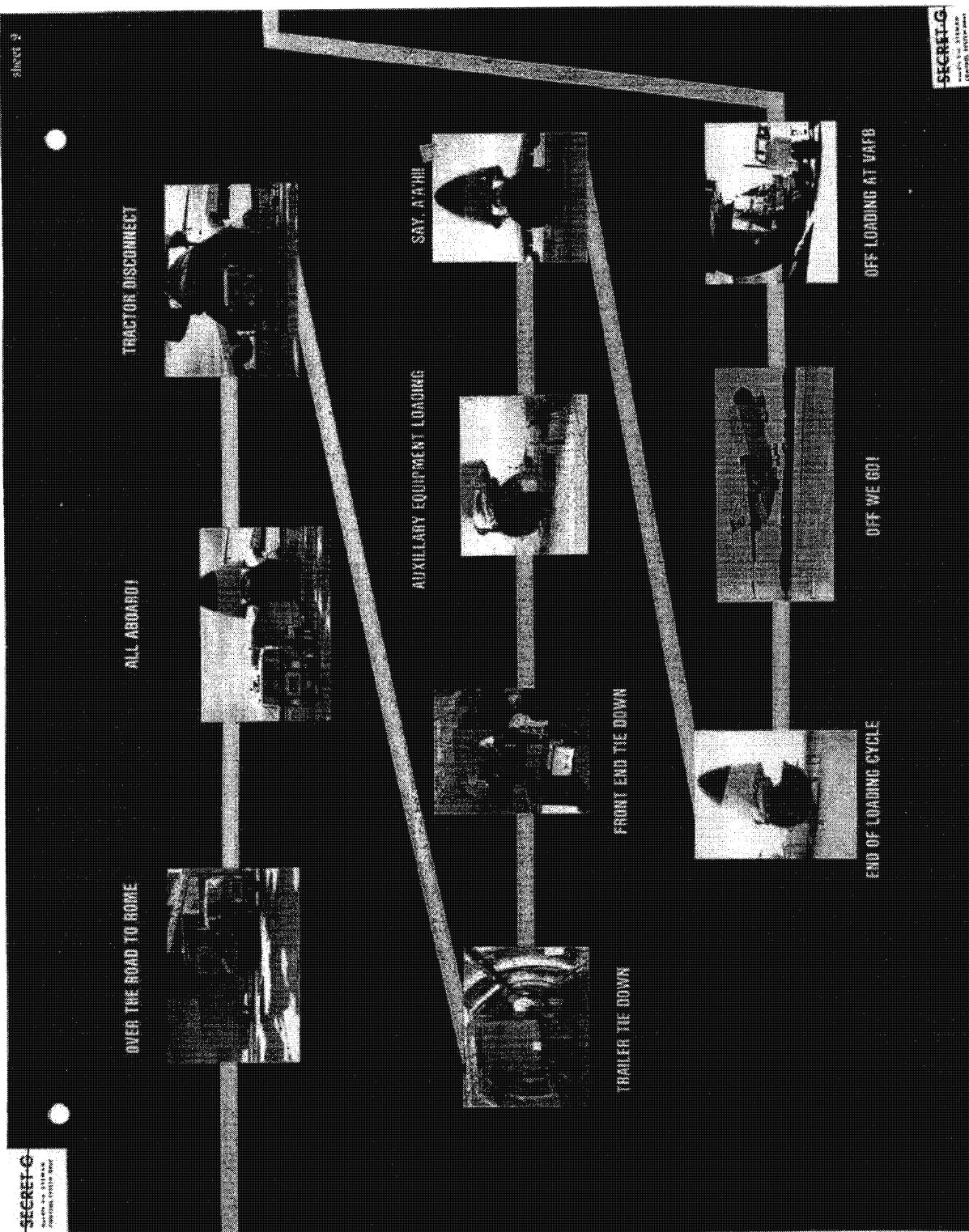


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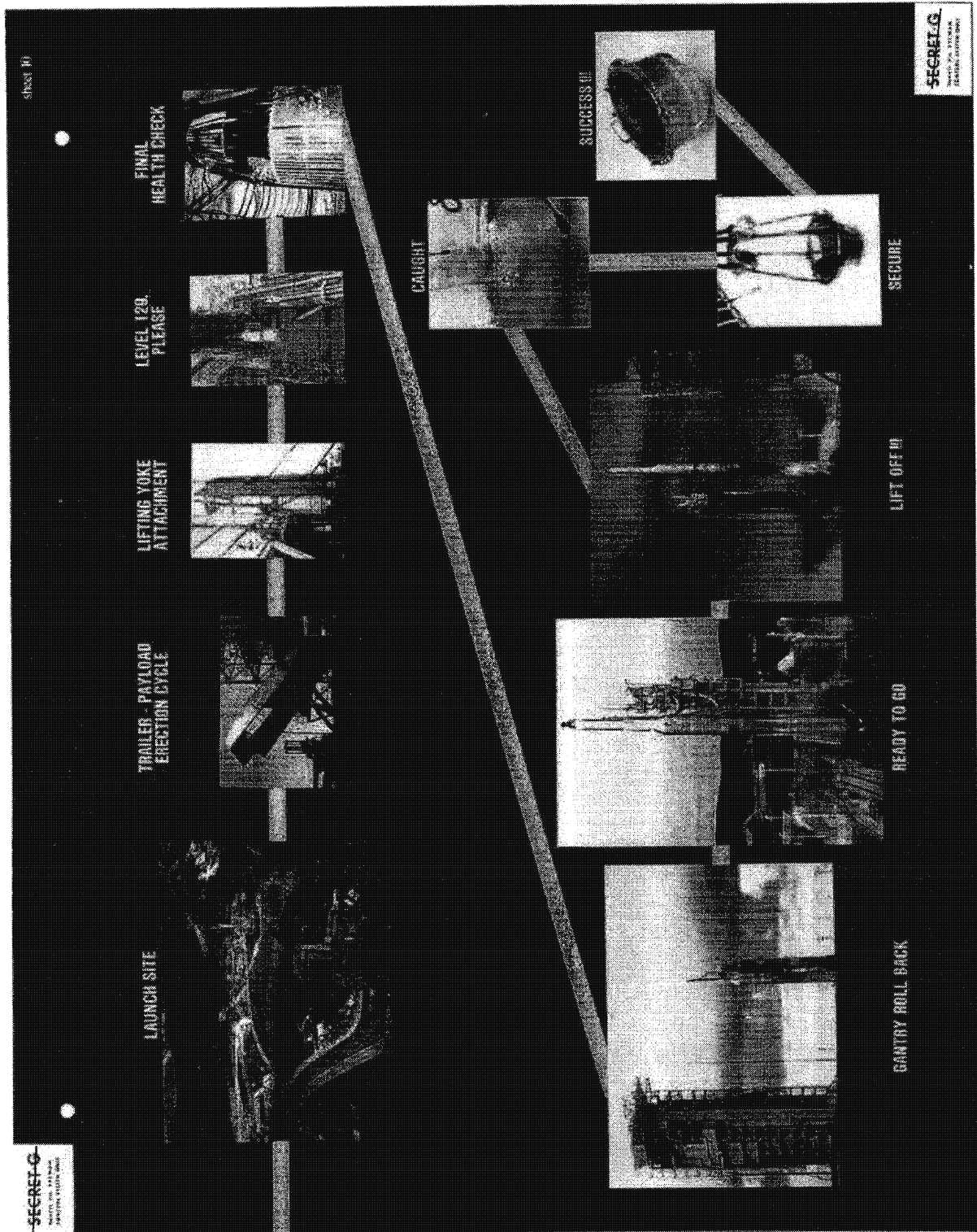
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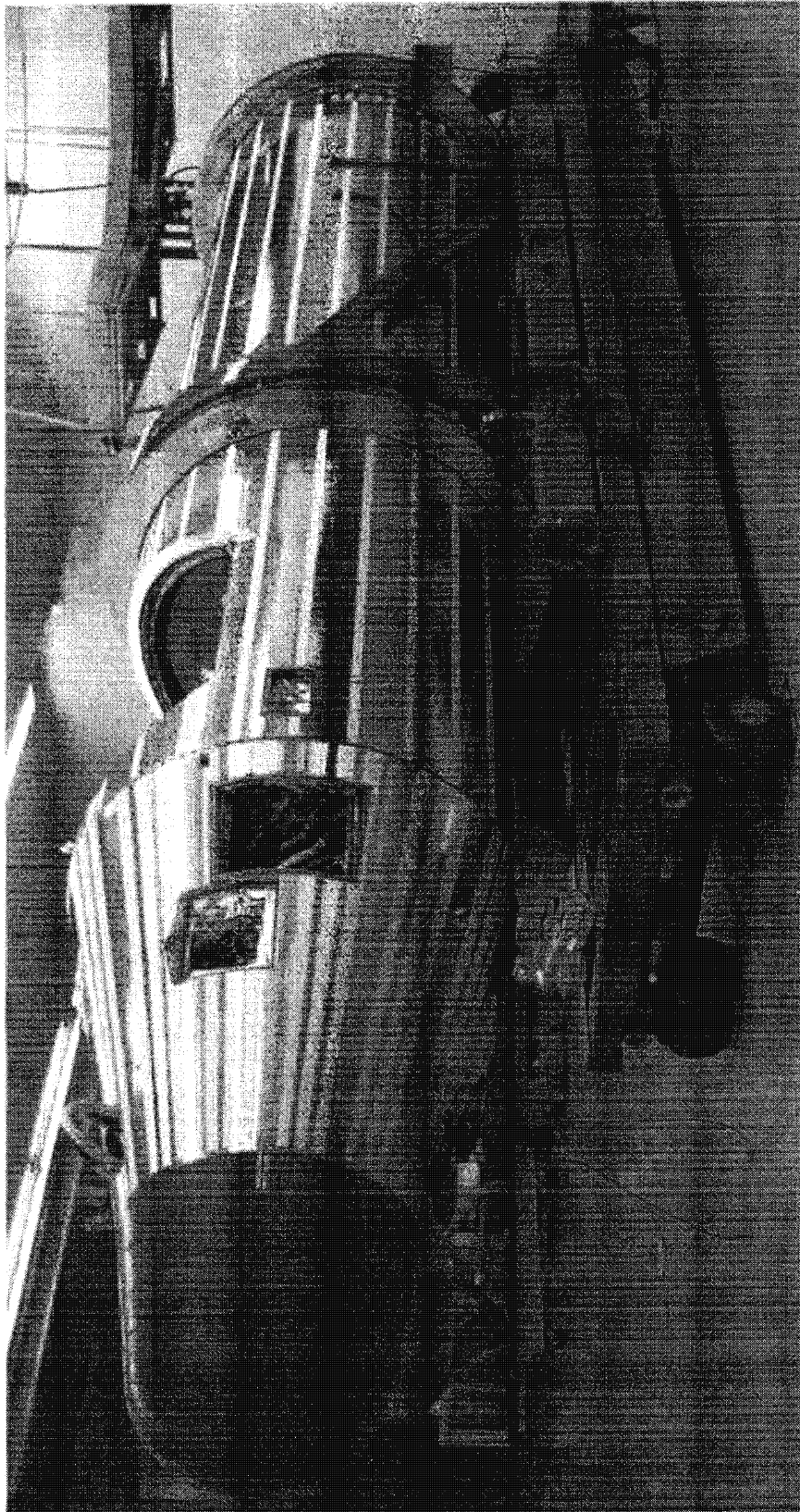
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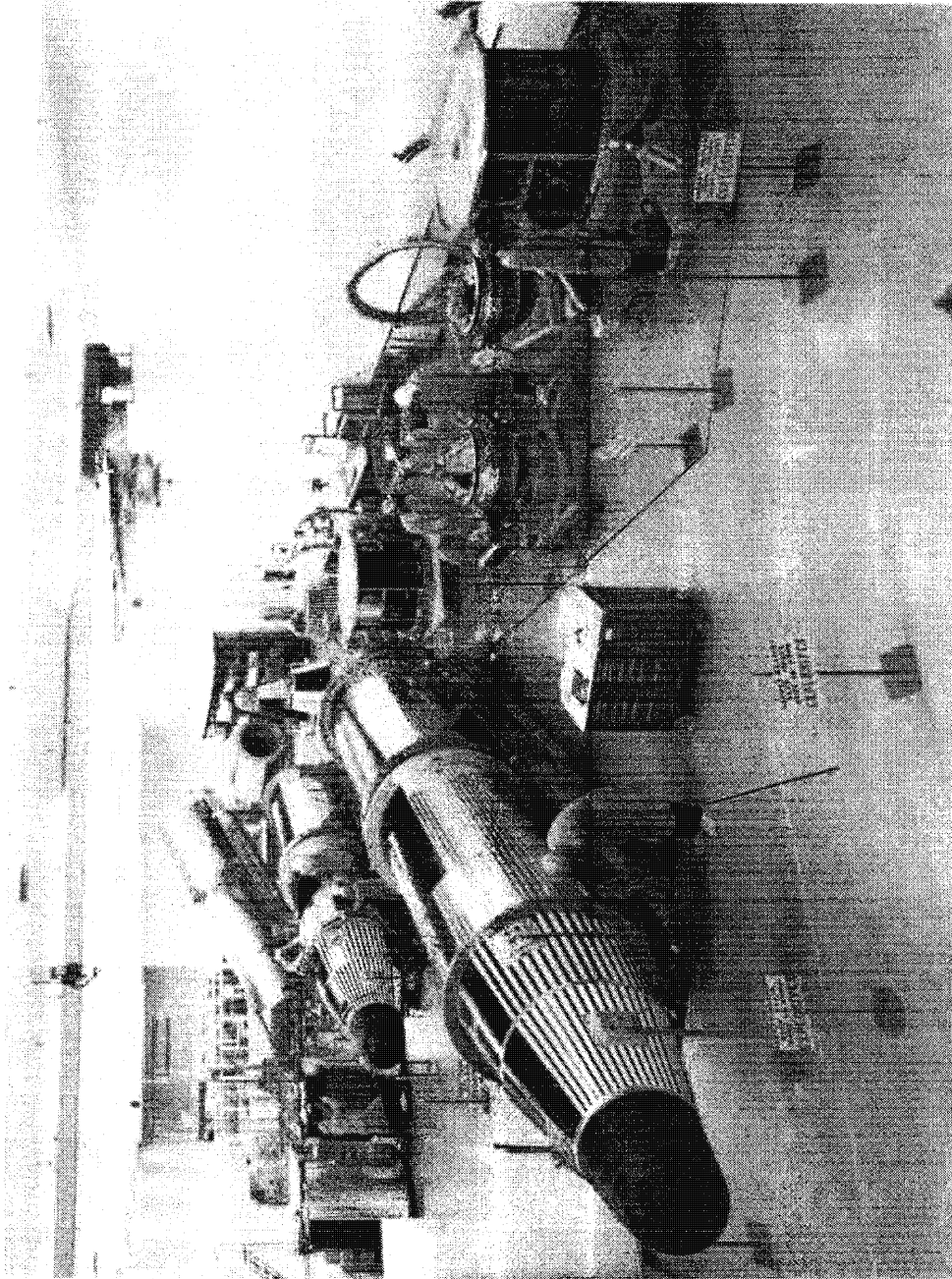
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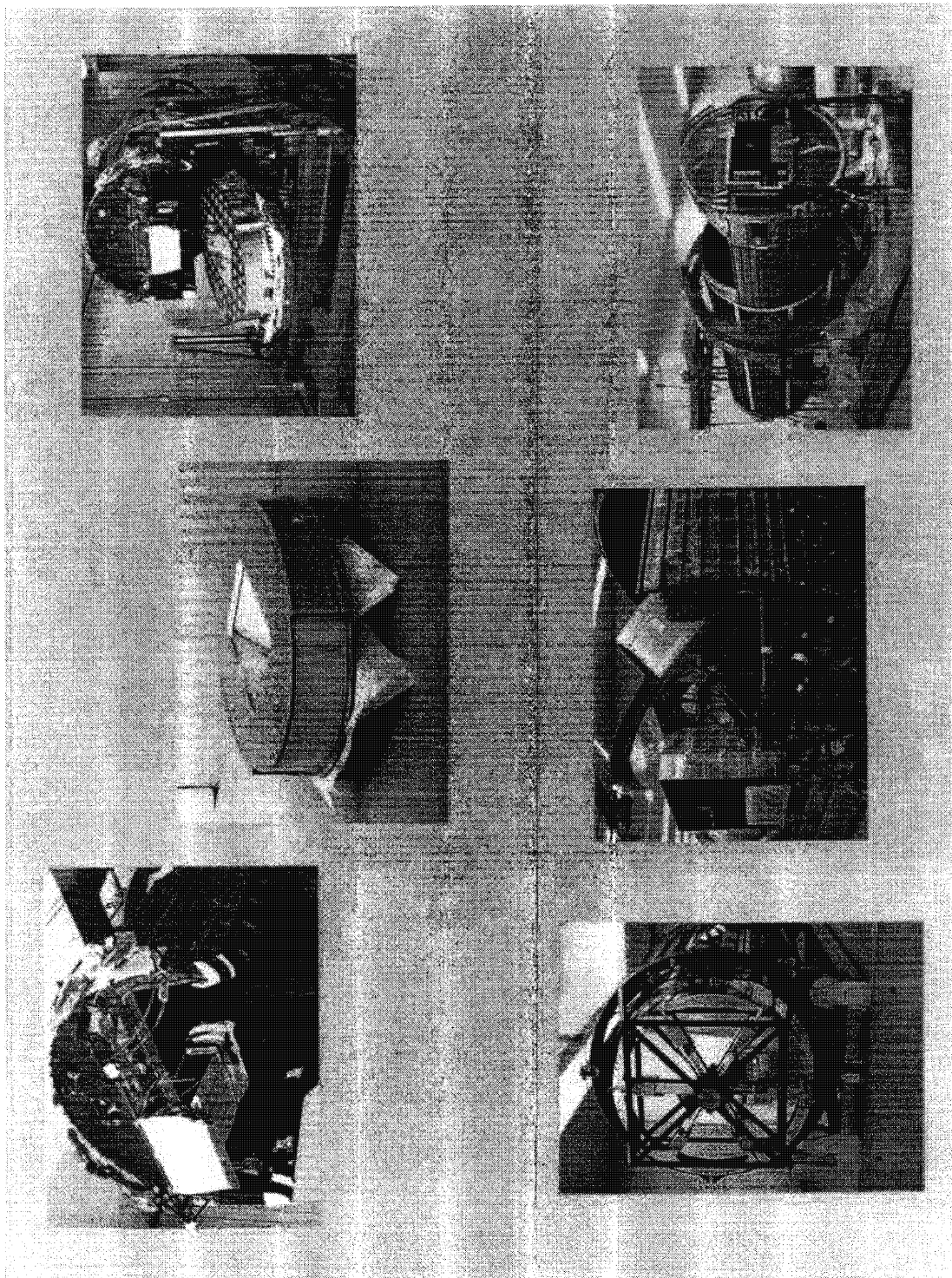
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Handle via BYEMAN
Control System Only

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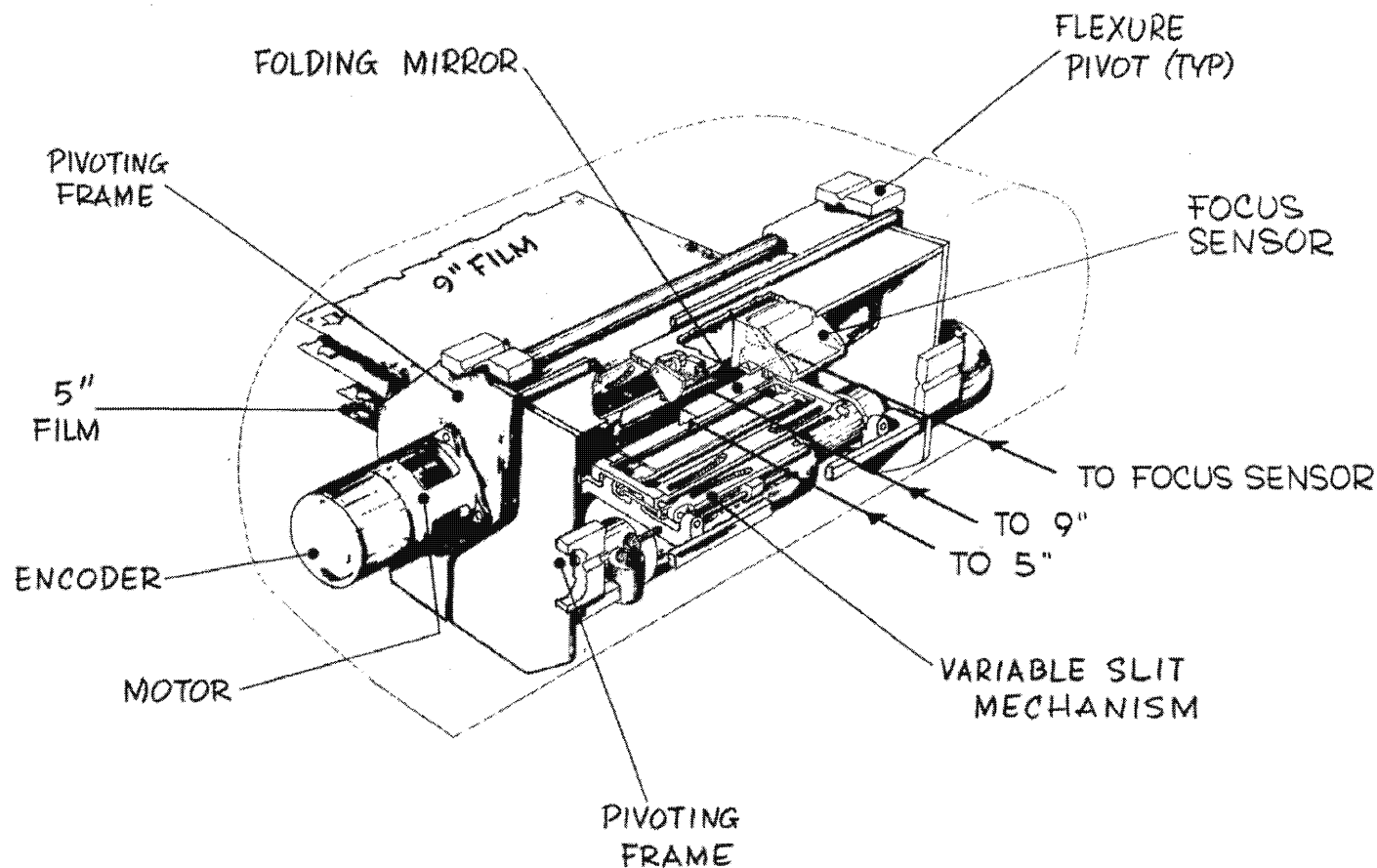
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PRIMARY CAMERA CONFIGURATION



Handle via **BYEMAN**
Control System Only

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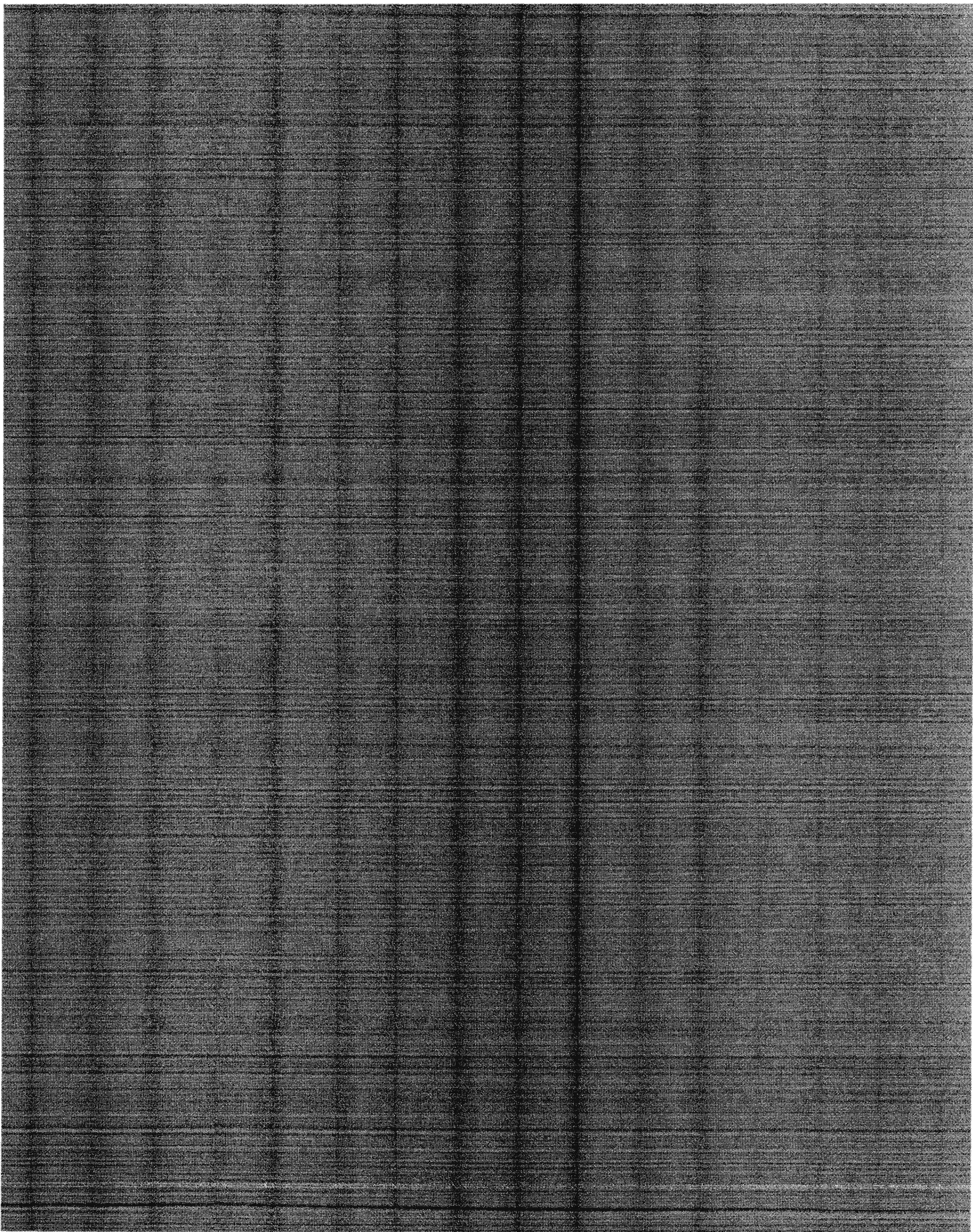
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