

bed 3.2

Rep: 710

*EROS MANAGEMENT
ASSISTANCE PROGRAM*



PHASE 2

A & E PRESENTATION

MARCH 1971



TOPICS TO BE COVERED

- FUNCTIONS RECENTLY CLARIFIED
 - USER TRAINING AND USER ASSISTANCE
 - AIRCRAFT DATA INPUTS
 - IMAGE GENERATION FROM DIGITAL DATA

- FUNCTIONAL FLOW WITHIN DATA HANDLING BUILDING
 - PHOTOGRAPHIC PRODUCTION MATERIALS
 - INPUT DATA
 - TYPICAL INTERNAL CONTROL FOR PRODUCTION ORDERS

- ADDITIONAL DATA FOR TECHNICAL CRITERIA
 - EMC/RFI CRITERIA
 - SUMMARY OF SPACE ALLOCATION FOR TECHNICAL FUNCTIONS
 - SPACE AND SPECIAL POWER ALLOCATIONS BY FUNCTIONS



USER TRAINING AND USER ASSISTANCE

- FORMAL TRAINING FOR U. S. AND FOREIGN PERSONNEL
 - CLASSROOM AREA AND EXPERIMENTAL AREAS, SEPARATE FROM PRODUCTION
 - CLASSROOMS FOR 30 STUDENTS
 - AUDIO VISUAL ACCOMMODATIONS FOR 60 PERSON LECTURE ROOM

- VISITING EXPERIMENTERS
 - 5 TO 10 USERS AT ANY TIME -- SPACE OF ~ 150 SQ FT PER PERSON
 - ACCESS TO BROWSE AREA AND CLASSROOMS
 - ACCESS TO EXPERIMENTAL AREAS

- USDI RESIDENT EXPERIMENTERS
 - 15 TO 25 RESIDENT PROFESSIONALS
 - EQUIPMENT SPACE ALLOCATED IN ANALOG/DIGITAL LABORATORY
 - OFFICE SPACE (FOR 1 OR 2 PERSON OCCUPANCY)~ 120 SQ FT PER PERSON



AIRCRAFT DATA INPUTS

- DATA LIBRARY TRANSFER

- ALL AERIAL PHOTOGRAPHY HOLDINGS OF USDI MAP INFORMATION OFFICE (MIO) TO EARTH RESOURCES DATA CENTER

~ 19,000 ROLLS PRIMARILY OF 9 1/2 FILM
42,000 PHOTO INDICES 10 X 12 OR 20 X 24

- BETWEEN 750,000 AND 1,000,000 IMAGES FROM NASA MSC TO ERDC

- WEEKLY DATA INPUT

- EXPECTED AVERAGE WEEKLY INPUT ~ 8,000 TO 10,000 IMAGES

- EFFECTS ON FACILITY

- AN INCREASE IN LIBRARY AND ARCHIVE SPACE FROM PREVIOUS ESTIMATE
- ADDITIONAL TYPES OF PHOTO PROCESSING EQUIPMENT REQUIRED
- PHOTO REPRODUCTION AREA INCREASED

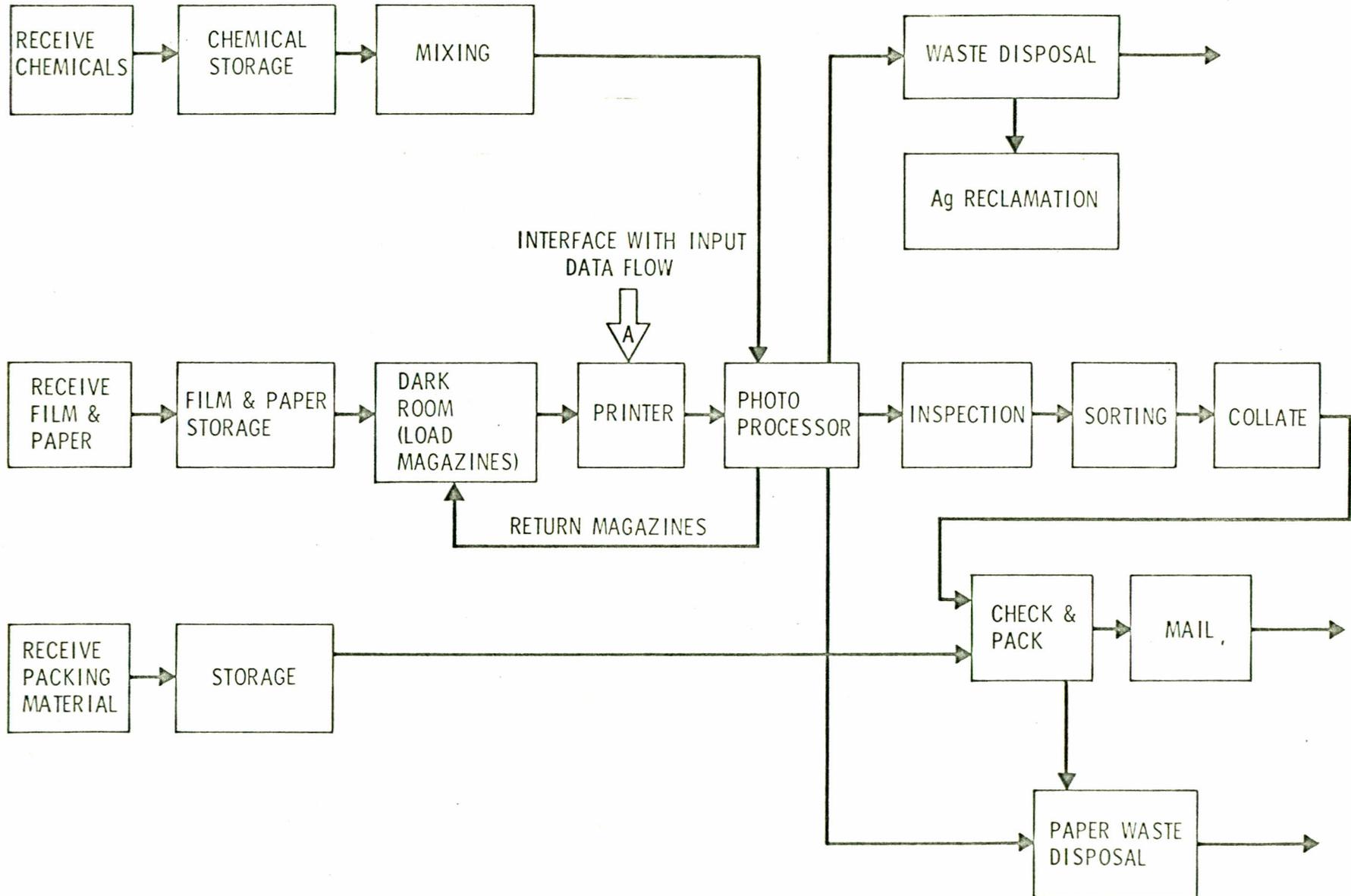


IMAGE GENERATION FROM DIGITAL DATA

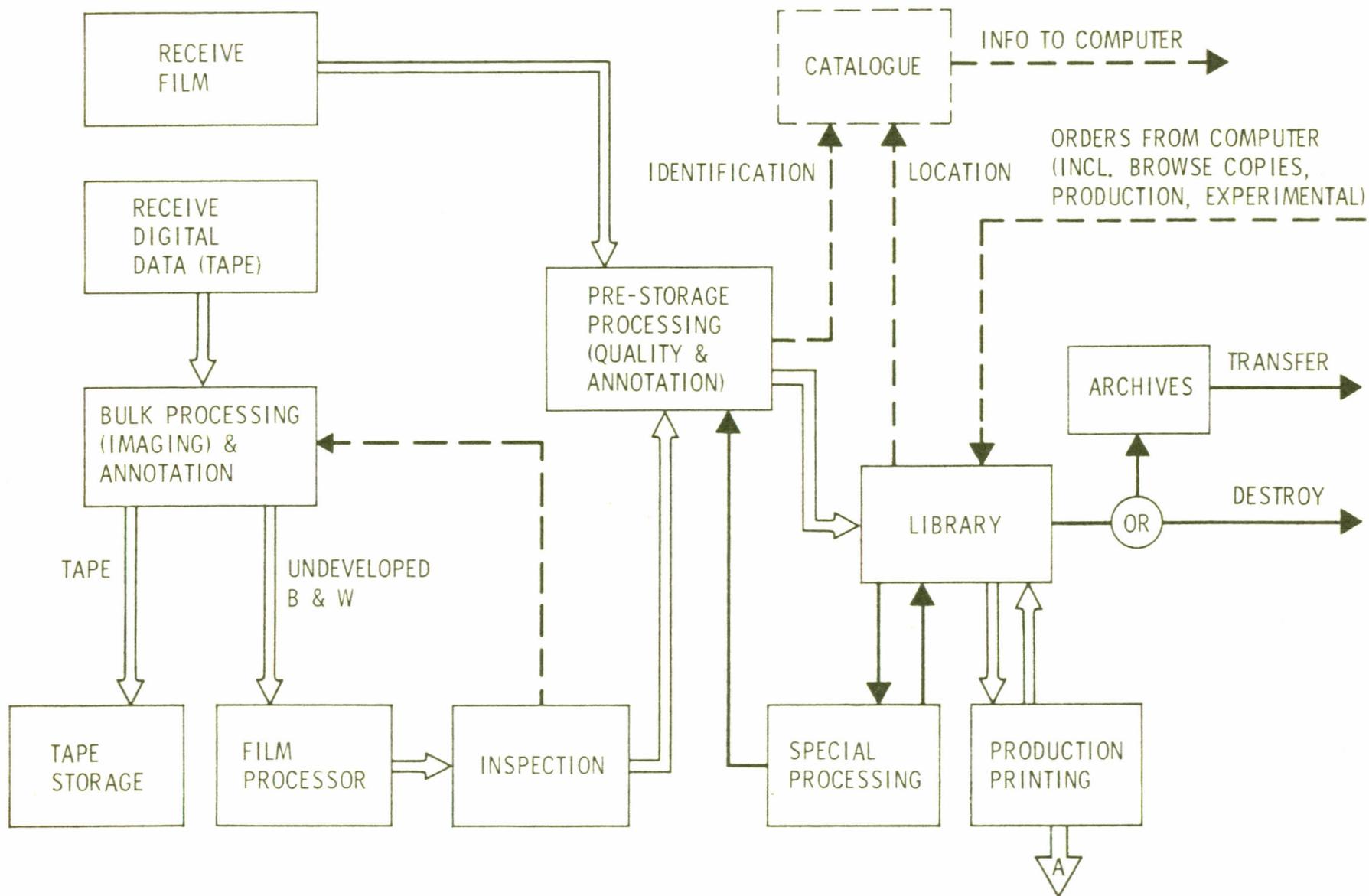
- NASA TO PERFORM FUNCTION FOR THE ERTS-A & B SATELLITES
- ERDC WILL ASSUME FUNCTION FOR EROS SATELLITES
- SPACE AND POWER ALLOCATED WITHIN ANALOG-DIGITAL LABORATORY
 - INPUTS ARE TELEMETRY AND/OR COMPUTER DIGITAL TAPES
 - OUTPUTS ARE FILM AND/OR DIGITAL TAPES
 - EXPOSED FILM TO BE PROCESSED IN PHOTO PROCESSING AREA
- SPACE ALLOCATED FOR FUTURE CARTOGRAPHIC QUALITY PROCESSING ADJACENT TO SPACE FOR IMAGE GENERATION



PHOTOGRAPHIC PRODUCTION MATERIALS FLOW

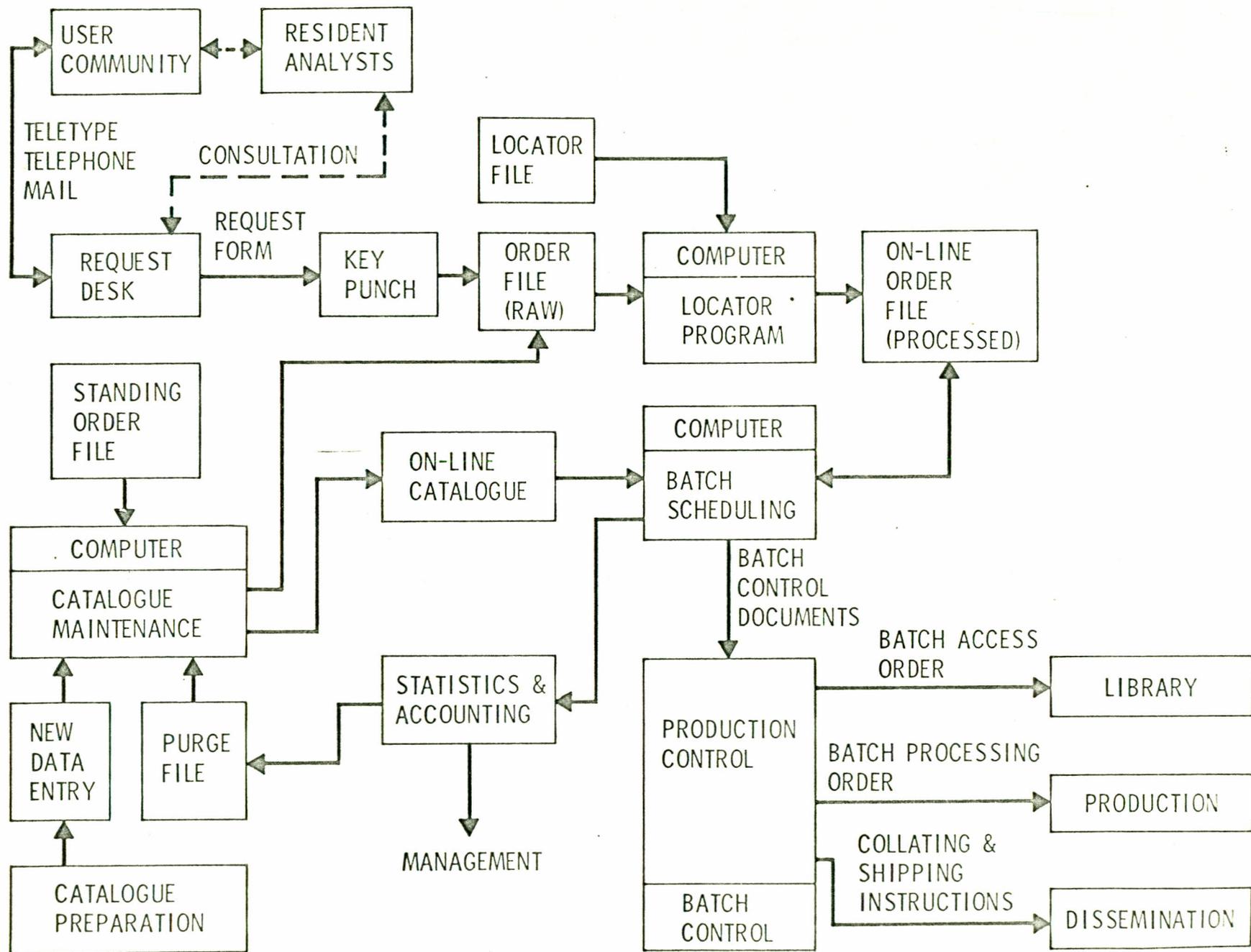


INPUT DATA FLOW



INTERFACE WITH PHOTOGRAPHIC
PRODUCTION MATERIALS FLOW

TYPICAL INTERNAL CONTROL FOR PRODUCTION ORDERS



EMC / RFI CRITERIA

- CRITERIA BASED ON FUTURE PRESENCE ON SITE OF A GROUND-SATELLITE DATA LINK REQUIRING LARGE ANTENNA
 - CRITERIA BASED ON WIDE BAND DATA LINK, S-BAND NOMINAL COMMAND AND CONTROL LINK AND VHF EMERGENCY COMMAND LINK
- DO NOT DEGRADE CURRENT ENVIRONMENT
- NO IMMEDIATE NEED TO CORRECT CURRENT DEFICIENCIES IN RF ENVIRONMENT
 - CORRECTIONS WILL BE MADE WHEN GROUND STATION IS CONSTRUCTED
- MAJOR GROUND LEVEL PROTECTION AREA OFF SITE WILL BE ON ANTENNA-BORESIGHT TOWER LINE -- PERSONNEL SAFETY DISTANCE COULD BE AS MUCH AS ONE MILE IN FRONT OF ANTENNA, 1/10 MILE TO REAR



SUMMARY OF SPACE FOR TECHNICAL FUNCTIONS

<u>FUNCTION</u>	<u>AREA (SF)</u>
• INPUT DATA COLLECTION, CATALOGUING, & STORAGE	5,630 10780
• PHOTOGRAPHIC PRODUCTION	12,800 14100
• PRODUCTION CONTROL (DIGITAL COMPUTER, REQUEST DESK, BROWSE AREA)	9,200 10,300
• SPECIAL PROCESSING (LABORATORIES)	5,000 6000
• USER TRAINING AND USER ASSISTANCE	7,200 7600
• TOTAL	39,830 <u>48780</u>



AEROSPACE FORM 4752

INPUT DATA COLLECTION, CATALOGUING AND STORAGE

(REF INPUT DATA FLOW CHART)

<u>FUNCTION</u>	<u>AREA (SF)</u>	<u>OCCUPANCY (HEAT LOAD)</u>	<u>EQUIPMENT HEAT LOAD (BTU/HR)</u>	<u>EQUIPMENT POWER RQMT (KVA)</u>
• SUPERVISOR	200	3	--	--
• SECRETARY	100	1	--	--
• PRE-STORAGE PROCESSING	600	8	13,700	4
• CATALOGUING	250	3	--	--
• LIBRARY	630	} 3	--	--
• ARCHIVES	3850 <i>9000</i>			
• BULK PROCESSING	INCLUDED IN ANALOG/DIGITAL LABORATORY			
• TOTAL AREA	5630 <i>10780</i>			



PHOTOGRAPHIC PRODUCTION

(REF PHOTOGRAPHIC PRODUCTION MATERIALS FLOW CHART)

<u>FUNCTION</u>	<u>AREA (SF)</u>	<u>OCCUPANCY HEAT LOAD</u>	<u>EQUIPMENT HEAT LOAD (BTU/HR)</u>	<u>EQUIPMENT POWER RQMT(KVA)</u>
• FILM & PAPER RECEIVING (FACILITY RECEIVING DOCK)	600	--	--	--
• FILM & PAPER STORAGE	1000	--	TBD	TBD
• PHOTO PROCESSING AREA				
• MAGAZINE DARK ROOM	120	2	--	--
• PRINTER AREA	2500	15	45,000	15
• PHOTO PROCESSORS *	3500	12	290,000	135
• INSPECTION	150	5	--	--
• SORTING	} 2000	15	--	--
• COLLATE				
• CHECK & PACK				
• MAIL ROOM	300	3	--	--

* REQUIRES 75 GAL/MIN OF PROCESS QUALITY WATER



PHOTOGRAPHIC PRODUCTION (Cont'd)

<u>FUNCTION</u>	<u>AREA (SF)</u>	<u>OCCUPANCY (HEAT LOAD)</u>	<u>EQUIPMENT HEAT LOAD (BTU/HR)</u>	<u>EQUIPMENT POWER RQMT (KVA)</u>
• CHEMICAL STORAGE	200	1	--	--
• CHEMICAL MIXING AREA	100 800	2	--	--
• CHEMICAL WASTE	100 300	--	4,500	1.5
• SILVER RECLAMATION SYST.				
• BLEACH REGENERATION SYST.				
• PACKING MATERIAL STORAGE	200	--	--	--
• MAINTENANCE & SPARES	130			
• OFFICE & TECH MANUAL	500	4	--	--
• OVER CLOTHING CHANGE ROOM	400 800	8 35	--	--
• PHOTO PROCESSING GROWTH	1,000	10	60,000	20
• TOTAL	12,800 14100			

PRODUCTION CONTROL

(REF INTERNAL CONTROL FOR PRODUCTION ORDERS CHART)

<u>FUNCTION</u>	<u>AREA (SF)</u>	<u>OCCUPANCY (HEAT LOAD)</u>	<u>EQUIPMENT HEATLOAD (BTU/HR)</u>	<u>EQUIPMENT POWER RQMT (KVA)</u>
• SUPERVISOR	200	3	--	--
• SECRETARY	100	1	--	--
• REQUEST DESK	550 1100	5 8	--	--
• BROWSE AREA	250 800	4 18	--	--
• BATCH SCHEDULING	100	2	--	--
• DIGITAL COMPUTER AREA				
• COMPUTER EQUIPMENT	4000	10	215,000	66
• MAINTENANCE/SUPPLIES	1600	4	--	--
• OFFICE/LIBRARY	1600	} 5	--	--
• MAGNETIC TAPE STORAGE	800			
• TOTAL AREA	9200 10300			



SPECIAL PROCESSING ANALOG-DIGITAL LABORATORY

FUNCTION	AREA (SF)	OCCUPANCY HEAT LOAD	EQUIPMENT HEAT LOAD (BTU/HR)	EQUIPMENT POWER RQMT (KVA)
• BULK PROCESSING IMAGING	600	}	} 116,000	} 40
• CARTOGRAPHIC QUALITY PROCESSING	500			
• THEME EXTRACTION		} 10		
• 1130 COMPUTER & PLOTTER	350		88,000	30
• VIDEO ELECTRONICS (TWO SIGMA 3 COMPUTERS)	450		88,000	30
• SUPPLIES & WORK TABLES	400		--	--
• EXPERIMENTERS' OFFICES (4)	480	6	--	--
• SUPERVISOR	200	3	--	--
• SECRETARY	100	1	--	--
• GENERAL GROWTH	920	4	102,000	35
• TOTAL AREA	4000			



SPECIAL PROCESSING PHOTO-OPTICAL LABORATORY

<u>FUNCTION</u>	<u>AREA (SF)</u>	<u>OCCUPANCY (HEAT LOAD)</u>	<u>EQUIPMENT HEAT LOAD (BTU/HR)</u>	<u>EQUIPMENT POWER RQMT (KVA)</u>
• PHOTO MONTAGE PROVISIONS	} 250 900	} 26	18,000	6
• MOSAIC LAYOUT PROVISIONS				
• COPY CAMERA(S)				
• FALSE COLOR IMAGING	100	1	--	--
• STEREO-OPTIC PROVISIONS	50	1	--	--
• ENGINEERING DARK ROOM (2)	250 600	2 4	3,000	1
• GROWTH	350	2	15,000	5
• TOTAL AREA	1000 2000			



TRAINING AND USER ASSISTANCE

<u>FUNCTION</u>	<u>AREA (SF)</u>	<u>OCCUPANCY (HEAT LOAD)</u>	<u>EQUIPMENT HEAT LOAD (BTU/HR)</u>	<u>EQUIPMENT POWER RQMT (KVA)</u>
• RESIDENT ANALYSTS	3000	20	--	--
• REFERENCE FILES	400	--	--	--
• VISITING USER ANALYSTS	1500	10	--	--
• TRAINING CLASSROOM(S)	1500	60	15,000	5
• TECHNICAL REFERENCE LIBRARY	800 / 1200	5	--	--
TOTAL AREA	7200 7600			



GENERAL SUPPORT FUNCTIONS

FACILITY

- PLANT ENGINEERING
 - BUILDING AND GROUNDS
 - MAINTENANCE SHOP
 - MAINTENANCE STORAGE
 - GARAGE/TRANSPORTATION
 - JANITORIAL CLOSETS
- COMMUNICATIONS
 - TELEPHONE SWITCHBOARD, TELETYPE
 - TELEPHONE DISTRIBUTION TERMINALS
- HEATING, VENTILATING, AIR CONDITIONING
- FIRE VAULT
- SOLID WASTE DISPOSAL
- CORRIDORS
- VESTIBULES
- REST ROOMS

SERVICES

- EXECUTIVE OFFICES
- LOBBY/RECEPTION AREA
- ADMINISTRATION
 - ACCOUNTING AND PAYROLL
 - PURCHASING
 - OFFICE SUPPLIES & REPRODUCTION
 - PLANT PROTECTION
 - PERSONNEL SERVICES
 - SAFETY AND FIRST AID
- FOOD SERVICES
 - CAFETERIA
 - COFFEE SHOPS

