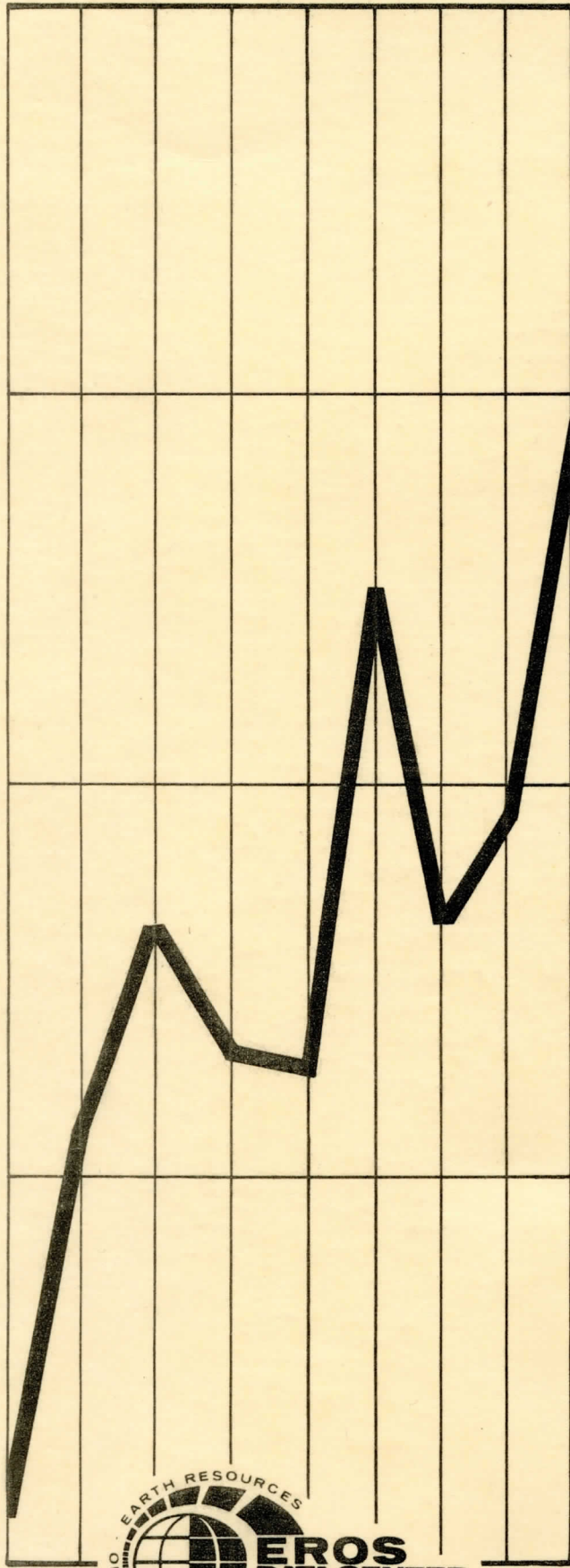


AW

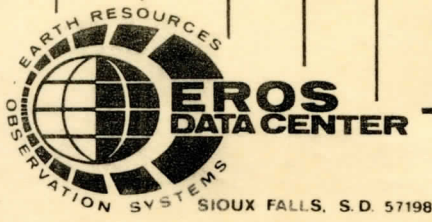
Al W.

*(recd. 8-29-77)
IC 8-206*



MONTHLY PRODUCTION STATISTICS

JULY 1977



**PRODUCTION ANALYSIS OFFICE
DATA PRODUCTION BRANCH**

August 26, 1977

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Branch of Data Production

July, 1977

DATA PRODUCTION OFFICE

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NCIC assisted in bringing on-line the Arizona Resources Information System (ARIS) facility as an NCIC State affiliate. Also, meetings were held to discuss order forms, brochures and a means of public awareness of cartographic products.

Product Development worked on a special project requiring compilation of graphic records and various materials describing small-scale aerial coverage. This was for the National Wetlands Inventory being conducted by the U.S. Fish and Wildlife Service.

EDIES inquiries were up again, but sales took a considerable drop. New developments included installation of a laser beam on the HRFR and implementation of a density look-up table on the Univac 90-30.

User Services recorded a decrease in order activity in July. Further improvements to INORAC processing are in progress, including better order statusing and tracking for EDIES products as well as a batch scheduling capability for inquiries.

Data Management received the COM microfiche for Landsat WRS listings and coordinated with Product Development during subsequent evaluation. The 25 complete sets cover all Landsat accessions through May 1977, Paths 1 to 97, Rows 1 to 60. Elsewhere in Data Management a second roll adapter station was installed, and a long-term project to enter JSC aircraft data using the Graf/Pen was completed.

The Photographic Laboratory and Production Systems Engineering (PSE) worked jointly to resolve a number of problems. Rejection rates on color composites have been reduced significantly, and the Cibachrome color print production system has undergone several changes in order to improve quality and consistency. The "blue streak" problem with the 1811 processor has been corrected. Progress on other problems has been good. Definition and evaluation of EDIPS requirements in several areas continued.

Quality Assurance/Product Inspection initiated the second phase of the EDC dye fade test. Receipt of Landsat rolls for inspection continued above normal in July.

NCIC Coordination

NCIC Coordination during the month included assistance in bringing the Arizona Resources Information System (ARIS) facility on-line as an NCIC State affiliate.

A meeting was held with NCIC personnel in Reston, Virginia, at which several action items were identified. The present inquiry and order forms are to be revised, and a joint NCIC/EDC brochure is to be prepared describing the services and cartographic products available through EDC and NCIC affiliates.

Another major topic of discussion at the July meeting was public awareness and the means which should be utilized to inform the public of cartographic products. Effort will be directed at compiling portfolios and displays of cartographic products (imagery and maps) for use at national parks and major U.S. airports.

Additional information exchange sessions will be held periodically to establish and maintain a more cohesive effort toward accomplishing the goals of NCIC and EDC throughout the INORAC network. The next session is scheduled for early September.

Product Development

The Accession Aids Program has been temporarily re-oriented to provide graphic records of small-scale aerial coverage in support of the National Wetlands Inventory by the Fish and Wildlife Service. The following materials are being compiled for delivery during August:

- 1) An inventory of all aerial coverage at scales smaller than 1:75,000 for the period from January 1, 1975, to the present.
- 2) Microfiche of the above coverage, formatted according to Accession Aids standards, with 1:1,000,000-scale map plots and associated listings on indexes.
- 3) Enlarged overlays of map plots at 1:75,000 scale for matching Inventory atlases.

Film types to be shown, in order of priority, are color infrared, color, and black-and-white.

In other work, Product Development is assisting Applications Branch personnel in an orientation session for NASA education specialists to be held in August. Several types of display materials -- regional notebooks, EDIES display books, and a Landsat slide collection -- are being recommended.

Landsat microfiche is now available for Paths 1 to 97, Rows 1 to 60, covering all Landsat accessions through May 1977. This material will be updated on a monthly basis.

A series of Standard Product Portfolios are in development for each Mapping Center region. There are five portfolios in each regional set, each stressing a different product theme. The total number of 7-panel portfolios to be produced includes 8 sets, or 40 portfolios.

MONTHLY REPORT ON EDIES FOR THE MONTH OF JULY

For the month, 17 more EDIES masters were produced and placed in the public domain. This gives us 186 masters from which to work, 21 of these are duplications - the same Landsat scenes processed with a different set of algorithms.

EDIES inquiries were up again for the month. But for the second month in a row, EDIES sales took a considerable drop.

A representative from Goodyear was out the latter part of the month and installed the new laser beam on the HRFR. The old one had finally died out.

The program which will generate a density look-up table on the computer instead of on the HRFR was implemented during the month. However, the implementation was only on the Univac 90-30, thus creating a backlog of scenes. Problems were encountered when trying to implement on the Burroughs 6700 and are presently being looked at.

August 3, 1977

EDIES SALES

Industry

3X	\$	3,776.00
1000		<u>33,635.00</u>
Total	\$	37,411.00

Government - Outside

3X	\$	5,518.00
1000		<u>25,545.00</u>
Total	\$	31,063.00

Government - Inside

3X	\$	14,539.00
1000		<u>13,727.00</u>
Total	\$	28,266.00

Real Money

Industry		\$37,411.00
Government - Outside		<u>31,063.00</u>
Total		\$68,474.00

The totals above do not reflect any Data Production
EDIES Orders (Approximately \$63,000.00).

There are 186 Masters

21 Duplications

165 Scenes

EROS DATA CENTER Product Summary*

MONTH July 1977

PRODUCT / CUSTOMER PROFILE	CURRENT MONTH				LAST MONTH		MONTH LAST YEAR			ORDER VALUE BY LOCATION
	ITEMS	%	DOLLARS	%	ITEMS	DOLLARS	ITEMS	DOLLARS	% \$ CHANGE	
I. LANDSAT	10,293	47	103,717	54	8,230	94,290	18,508	83,930	24	22. Terminals A. EDC \$ 183,491 B. Rolla 93 C. Phoenix 900 D. NCIC 9,171 E. COE 0 F. Denver 9,010 G. NSTL 11,868 H. Menlo 4,234 23. Other A. Alaska 3,577** B. IACS TOTAL \$ 218,767 **Included in 22.A. REMARKS: 23.A. for month of June was \$3500. #14 for Current Month and Last Month are shipped orders. CURRENT FISCAL YEAR TOTALS 10. \$ 2,114,417 11. \$ 98 12. \$ 5,97 13. \$ 341,252 14. 20,375 15. 39,494 16. 14,689 17. 348 18. 772 19. 3 % 20. Not Avail % 21. N.A. Days Date Issued <u>8/16/77</u>
A. Federal Government	2,198	21	23,518	23	1,774	20,987	4,645	24,798	-5	
(1) U.S.G.S.	643	29	6,603	28	604	7,642	1,868	12,351	-47	
(2) Other Federal	939	43	11,089	47	440	5,920	593	3,760	195	
(3) EDC/EPO PAO	0	0	0	0	0	0	124	463	0	
(4) NASA P.I.'s	616	28	5,826	25	730	7,425	2,060	8,224	-29	
B. State/Local Government	102	1	1,315	1	51	697	80	284	363	
C. Academic	1,456	14	10,510	10	1,075	11,060	4,651	8,513	23	
D. Industrial	2,778	27	29,916	29	1,644	23,413	4,029	22,412	33	
E. Individuals	580	6	5,833	6	338	3,485	1,341	9,951	-41	
F. Non-U.S.	3,179	31	32,625	31	3,348	34,648	3,740	17,888	82	
G. Non-Classified	0	0	0	0	0	0	22	84	0	
2. MANNED SATELLITE	506	2	8,007	4	242	4,774	436	3,940	103	
3. NASA AIRCRAFT	3,039	14	36,230	19	2,513	30,106	2,116	24,900	46	
4. USDI AERIAL MAPPING	7,910	37	45,070	23	35,929	124,101	11,766	43,559	3	
5. TOTAL IMAGERY (#1.2.3.4)	21,748	100%	193,024	100%	46,914	253,271	32,826	156,329	23	
A. Federal Government	7,234	33	60,092	31	21,186	101,779	12,774	59,010	2	
(1) U.S.G.S.	4,048	56	30,010	50	4,257	60,828	7,441	33,043	-9	
(2) Other Federal	2,567	35	24,131	40	16,199	33,526	899	6,273	285	
(3) EDC/EPO PAO	0	0	0	0	0	0	2,222	11,014	0	
(4) NASA P.I.'s	619	9	5,951	10	730	7,425	2,212	8,680	-31	
B. State/Local Government	277	1	3,551	2	10,170	22,119	248	1,666	113	
C. Academic	3,138	15	22,544	12	2,246	20,905	6,800	19,418	16	
D. Industrial	6,108	28	58,524	30	7,964	55,434	6,645	37,482	56	
E. Individuals	1,508	7	13,988	7	1,623	12,891	2,535	20,400	-31	
F. Non-U.S.	3,483	16	34,325	18	3,725	40,143	3,802	18,269	88	
G. Non-Classified	0	0	0	0	0	0	22	84	0	
6. COMPUTER COMP. TAPES	126		25,200		158	31,600	230	46,000	-45	
7. DATA BASE TAPES	5		543		0	0	7	431	26	
8. MISC. CUST. & SPEC. PROC.			0		0	0		8,772	0	
9. TOTAL VALUE (#5.6.7.8)			218,767			284,871		211,532	3	
10. Reimbursable Receipts			\$ 218,759			\$ 298,835		\$ 201,103		
11. Average Order Value			\$ 150			\$ 196		\$ 106		
12. Average Frame Value			\$ 8.88			\$ 5.40		\$ 4.76		
13. Work In Process **			\$ 341,252			\$ 349,957		\$ 155,437		
14. Orders Received			1,454			1,451		1,942		
15. Customer Contacts			3,141			4,600		3,839		
16. Visitors to EDC			2,249			2,318		3,116		
17. EDC Staff			348			352		389		
18. Valid Complaints			70			76		154		
19. Complaints to Orders Ratio			3 %			3 %		5 %		
20. Shipped Orders Over 30 Days Old			Not Avail. %			Not Avail. %		11 %		
21. Average Delivery Time (Imagery)			N.A. Days			N.A. Days		17 Days		

* By Order Entry Date
 ** As Of Last Working Day Of The Month

EROS DATA CENTER

Product Summary



QUARTER April-June '77

PRODUCT / CUSTOMER PROFILE	CURRENT QUARTER				LAST QUARTER		QUARTER LAST YEAR			ORDER VALUE BY LOCATION
	ITEMS	%	DOLLARS	%	ITEMS	DOLLARS	ITEMS	DOLLARS	% CHANGE	
1. LANDSAT	21,479	23	237,087	38	34,142	233,535	59,105	324,161	-27	22. Terminals A. EDC \$ 620,705 B. EMC 4,625 C. MCMC 4,417 D. NCIC 20,743 E. COE -- F. RMMC 22,242 G. NSTL 31,939 H. WMC 8,924 23. Other A. Alaska Not Avail. B. IAGS -- TOTAL \$ 713,595 REMARKS: Data for Current Quarter and February and March of Last Quarter are based on shipped date. Data for January of Last Quarter and for Quarter Last Year are based on order entry date. Data for #14 under Current Quarter and February and March of Last Quarter are number of orders <u>shipped</u> . Data for #20 and #21 for Current Quarter and Last Quarter are not available. Date Issued <u>7/20/77</u>
A. Federal Government	5,530	26	61,539	26	10,183	64,820	14,234	69,410	-11	
(1) U.S.G.S.	1,646	30	21,096	34	3,589	31,810	2,846	14,454	46	
(2) Other Federal	2,275	41	25,378	41	2,987	16,857	1,858	16,259	56	
(3) EDC/EPO PAO	0	0	0	0	0	0	199	1,698	0	
(4) NASA P.I.'s	1,609	29	15,065	25	3,607	16,153	9,331	36,999	-59	
B. State/Local Government	401	2	4,119	2	214	2,181	455	2,779	48	
C. Academic	2,719	12	27,021	11	3,524	22,922	5,021	28,726	-6	
D. Industrial	4,903	23	64,115	27	11,258	75,864	11,947	66,968	-4	
E. Individuals	1,131	5	13,443	6	1,537	12,940	4,189	33,899	-60	
F. Non-U.S.	6,795	32	66,850	28	7,415	54,694	23,241	122,306	-45	
G. Non-Classified	0	0	0	0	11	114	18	73	0	
2. MANNED SATELLITE	650	1	13,681	2	845	12,416	1,418	16,161	-15	
3. NASA AIRCRAFT	8,527	9	120,787	19	5,703	63,308	8,404	94,322	28	
4. USDI AERIAL MAPPING	63,837	67	252,840	41	30,911	99,330	47,544	140,194	80	
5. TOTAL IMAGERY (#1,2,3,4)	94,493	100%	624,395	100%	71,601	408,589	116,471	574,838	9	
A. Federal Government	41,507	44	269,001	43	30,758	133,810	37,435	152,342	77	
(1) U.S.G.S.	14,524	35	155,111	58	13,506	65,366	8,216	35,927	332	
(2) Other Federal	25,374	61	98,825	37	13,610	51,922	18,885	69,627	42	
(3) EDC/EPO PAO	0	0	0	0	0	0	245	2,408	0	
(4) NASA P.I.'s	1,609	4	15,065	5	3,642	16,522	10,089	44,380	-66	
B. State/Local Government	11,310	12	31,149	5	1,185	9,982	10,203	35,236	-11	
C. Academic	6,037	6	50,971	8	7,329	43,629	8,623	48,106	6	
D. Industrial	23,789	25	161,375	26	20,165	131,144	26,647	142,233	13	
E. Individuals	4,489	5	37,359	6	4,171	32,738	9,986	71,039	-47	
F. Non-U.S.	7,361	8	74,540	12	7,873	56,826	23,544	125,597	-41	
G. Non-Classified	0	0	0	0	120	460	33	285	0	
6. COMPUTER COMP. TAPES	446		89,200		292	52,773	844	114,531	-22	
7. DATA BASE TAPES	0		0		1	529	1	206	0	
8. MISC. CUST. & SPEC. PROC.			0			794		35,932	0	
9. TOTAL VALUE (#5,6,7,8)			713,595			462,685		725,507	-2	
10. Reimbursable Receipts			\$ 752,348			\$ 477,159		\$ 667,668		
11. Average Order Value			\$ 103			\$ 79		\$ 105		
12. Average Frame Value			\$ 6.61			\$ 5.71		\$ 4.94		
13. Work In Process **			\$ 349,957			\$ 326,982		\$ 169,971		
14. Orders Received			6,947			5,802		6,901		
15. Customer Contacts			13,015			12,448		12,405		
16. Visitors to EDC			6,483			2,135		5,593		
17. EDC Staff			352			327		393		
18. Valid Complaints			197			218		400		
19. Complaints to Orders Ratio			2%			3%		4%		
20. Shipped Orders Over 30 Days Old			- %			- %		9%		
21. Average Delivery Time (Imagery)			- Days			- Days		15 Days		

** As of Last Working Day of the Quarter

EROS DATA CENTER

Product Summary*

FISCAL YEAR 1976



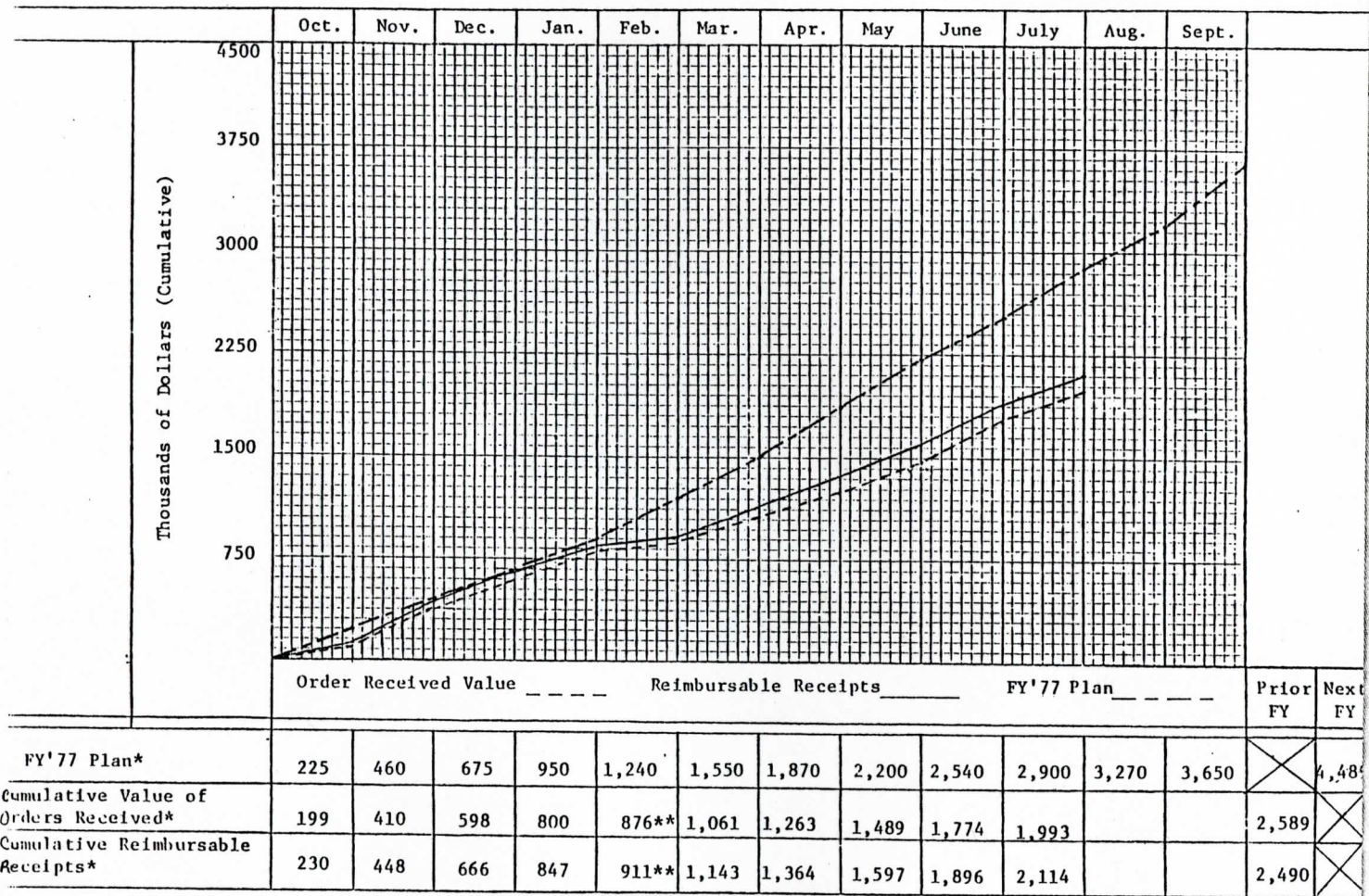
PRODUCT / CUSTOMER PROFILE	CURRENT FISCAL YEAR				LAST FISCAL YEAR			ORDER VALUE BY LOCATION
	ITEMS	%	DOLLARS	%	ITEMS	DOLLARS	% \$ CHANGE	
1. LANDSAT	246,449	61	1,237,862	60	197,654	764,889	62	22. Terminals A. EDC \$2,317,721 B. Rolla 21,921 C. Phoenix 15,568 D. NCIC 75,505 E. COE 473 F. Denver 35,668 G. NSTL 63,850 H. Merlo 58,579 23. Other A. Alaska _____ B. IAGS _____ TOTAL \$2,589,285 REMARKS: #18 for Last FY includes invalid complaints from July through March. #17 for Current FY includes 34 summer aids/interns. Date Issued <u>7-19-76</u> Data Production Branch
A. Federal Government	93,928	38	439,291	35	39,621	149,075	195	
(1) U.S.G.S.	19,202	20	117,687	27	28,182	116,563	1	
(2) Other Federal	9,384	10	57,380	13	3,414	19,295	197	
(3) EDC/EPO PAO	2,496	3	19,768	4	588	1,025	1,829	
(4) NASA P.I.'s	62,846	67	244,456	56	5,437	12,192	1,905	
B. State/Local Government	1,211	1	7,591	1	1,921	7,388	3	
C. Academic	25,805	11	123,760	10	27,545	106,374	16	
D. Industrial	42,311	17	218,299	18	45,476	180,824	21	
E. Individuals	18,014	7	133,956	11	18,632	98,753	36	
F. Non-U.S.	64,697	26	311,073	25	47,066	153,899	102	
G. Non-Classified	483	0	3,892	0	17,393	68,576	-94	
2. MANNED SATELLITE	9,664	2	85,783	4	28,638	113,773	-25	
3. NASA AIRCRAFT	42,014	10	407,639	20	30,798	269,178	51	
4. USDI AERIAL MAPPING	106,979	27	327,328	16	164,124	309,459	6	
5. TOTAL IMAGERY (#1,2,3,4)	405,106	100%	2,058,612	100%	421,214	1,457,299	41	
A. Federal Government	163,984	40	771,293	37	132,328	428,209	80	
(1) U.S.G.S.	44,383	27	252,857	33	73,239	307,182	-18	
(2) Other Federal	43,482	27	180,518	23	52,537	90,079	100	
(3) EDC/EPO PAO	3,272	2	29,657	4	1,115	18,756	58	
(4) NASA P.I.'s	72,847	44	308,261	40	5,437	12,192	2,428	
B. State/Local Government	14,103	4	60,627	3	7,178	28,603	112	
C. Academic	39,283	10	196,795	10	58,879	207,955	-5	
D. Industrial	82,182	20	424,090	21	121,729	390,491	9	
E. Individuals	35,223	9	252,819	12	30,900	160,709	57	
F. Non-U.S.	68,457	17	343,930	17	51,676	168,272	104	
G. Non-Classified	1,874	0	9,058	0	18,524	73,060	-88	
6. COMPUTER COMP. TAPES	2,289		403,531		729	144,120	180	
7. DATA BASE TAPES	16		2,411		12	2,139	13	
8. MISC. CUST. & SPEC. PROC.			124,731			--	--	
9. TOTAL VALUE (#5,6,7,8)			2,589,285		1,603,558	61		
10. Reimbursable Receipts			\$ 2,490,365		\$ 1,601,273			
11. Average Order Value			\$ 94		\$ 49			
12. Average Frame Value			\$ 5.08		\$ 3.30			
13. Work In Process **			\$ 169,971		\$ 91,743			
14. Orders Received			27,711		32,457			
15. Customer Contacts			41,571		52,505			
16. Visitors to EDC			17,060		15,366			
17. EDC Staff			393		370			
18. Valid Complaints			1,463		2,244			
19. Complaints to Orders Ratio			4 %		8 %			
20. Shipped Orders Over 30 Days Old			7 %		11 %			
21. Average Delivery Time (Imagery)			14 Days		15 Days			

* By Order Entry Date

** As of Last Working Day of the FY

Month July, 1977

Issue Date August 16, 1977



FY'77 Plan*

Cumulative Value of Orders Received*

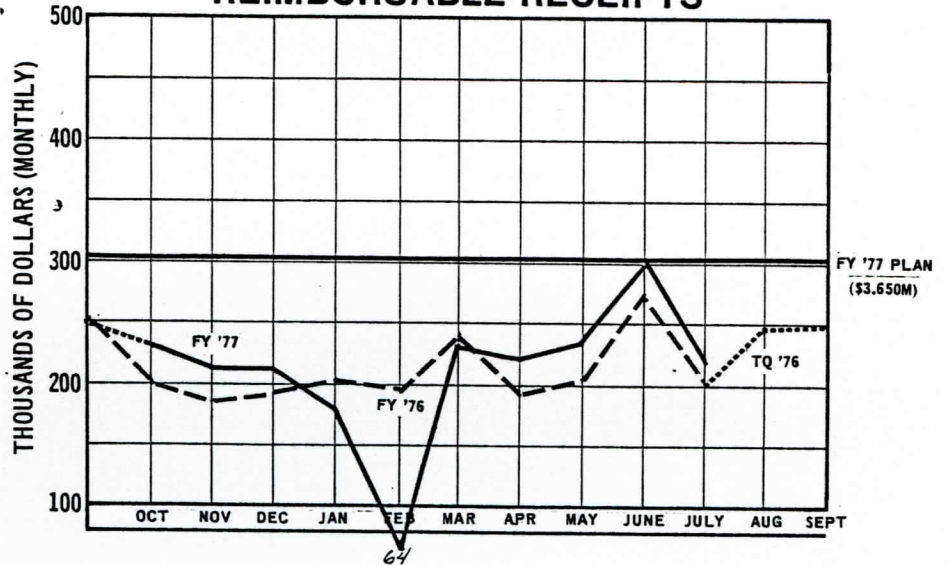
Cumulative Reimbursable Receipts*

* All Units in Thousands

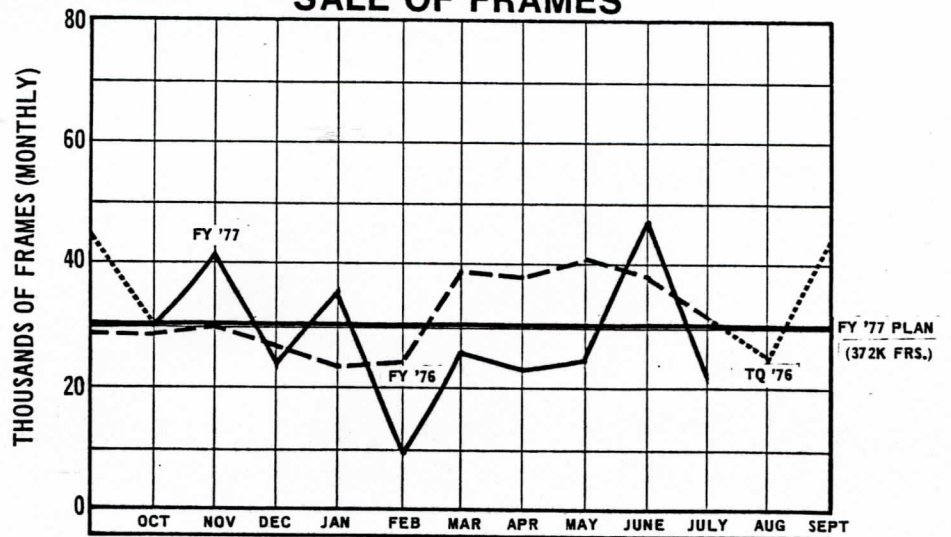
**Small cumulative increase is due to a change in data collection point under the INORAC system.

Prior FY	Next FY
X	4,480
2,589	X
2,490	X

REIMBURSABLE RECEIPTS

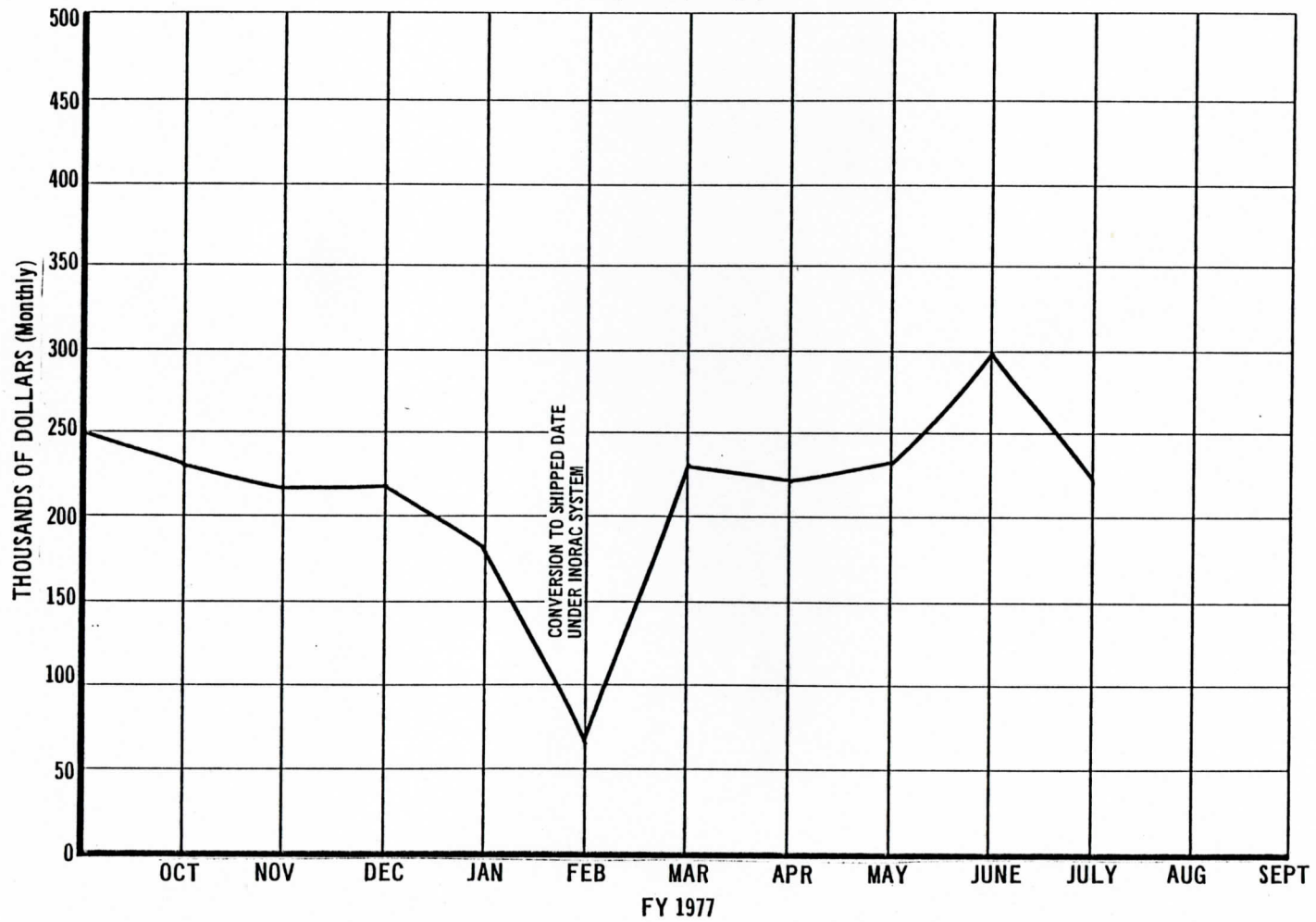


SALE OF FRAMES

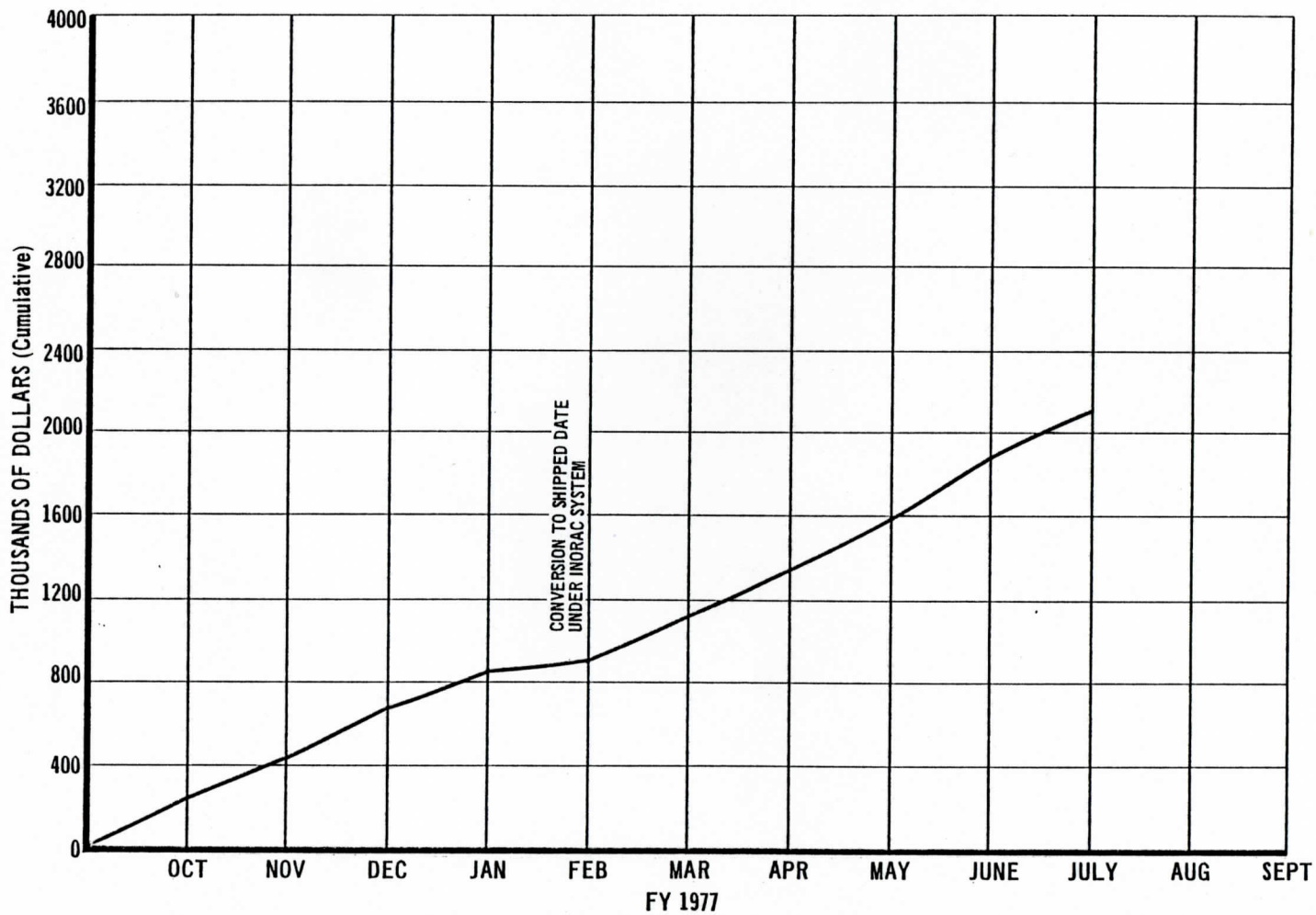


NOTE: February 1977 low is due to a change in data collection point under the INORAC system.

REIMBURSABLE RECEIPTS (Monthly)



REIMBURSABLE RECEIPTS



EDC DATA DEMAND

August 16, 1977

I. FRAMES	FY '73	FY '74	FY '74	FY '75	FY '75	FY '76	FY '76	TQ '76	Revised	
	Items	Items	% Increase	Items	% Increase	Items	% Change	Items	FY '77 Projection	% Change
Landsat Imagery	81,071	157,178	+ 94%	195,125	+ 24%	246,449	+ 26%	50,804	150,000	- 39%
Landsat CCT's*	10	228	+ 2,000%	879	+ 286%	2,305	+ 162%	1,020	2,025	- 12%
Manned Satellite Imagery	--	17,201	--	28,049	+ 63%	9,664	- 66%	1,405	4,000	- 59%
NASA Aircraft Imagery	7,746	19,282	+ 149%	29,201	+ 51%	42,014	+ 44%	8,798	35,000	- 17%
USDI Mapping Imagery	76,196	90,208	+ 18%	160,830	+ 78%	106,979	- 33%	42,397	196,000	+ 83%
TOTALS	165,023	284,097	+ 72%	414,084	+ 46%	407,411	- 2%	104,424	387,025	- 5%

II. DOLLARS	FY '73	FY '74	FY '74	FY '75	FY '75	FY '76	FY '76	TQ '76	Revised	
	Dollars	Dollars	% Increase	Dollars	% Increase	Dollars	% Change	Dollars	FY '77 Projection	% Change
Landsat Imagery	\$228,042	\$528,514	+ 132%	\$760,263	+ 44%	\$1,237,862	+ 63%	\$274,229	\$1,161,000	- 6%
Landsat CCT's*	1,600	36,480	+ 2,200%	169,300	+ 364%	405,942	+ 140%	179,725	405,000	- 1%
Manned Satellite Imagery	--	34,421	--	113,473	+ 230%	85,783	- 24%	15,342	54,000	- 37%
NASA Aircraft Imagery	40,810	98,205	+ 141%	262,433	+ 167%	407,639	+ 55%	105,374	405,000	- 1%
USDI Mapping Imagery	103,866	139,127	+ 34%	304,373	+ 119%	327,328	+ 8%	115,849	675,000	+106%
TOTALS	\$374,318	\$836,747	+ 124%	\$1,609,842	+ 92%	\$2,464,554	+ 53%	\$690,519	\$2,700,000	+ 10%

*Includes DBT's

NOTE: FY '73 - FY '75 is by Request Date

USER PROFILE OF IMAGERY

(Based on Order Entry Date)

January 17, 1977

Category	Frames		Dollars		Frames		Dollars		Frames		Dollars	
	FY '73*		FY '74*		FY '75		FY '75		FY '75		FY '75	
Federal Gov't. (Less N.I.'s)	41,119 (25%)	107,418 (29%)	51,910 (18%)	147,840 (18%)	126,891 (30%)	416,017 (28%)						
NASA Investigators	---	---	---	---	5,437 (2%)	12,192 (1%)						
State/Local Government	36,558 (22%)	44,632 (12%)	6,203 (2%)	21,947 (3%)	7,178 (2%)	28,603 (2%)						
Academic	21,210 (13%)	45,147 (12%)	34,373 (12%)	107,134 (13%)	58,879 (14%)	207,955 (14%)						
Industrial	38,516 (23%)	96,242 (26%)	104,920 (37%)	231,223 (29%)	121,729 (29%)	390,491 (27%)						
Individuals	11,324 (7%)	32,301 (9%)	26,698 (10%)	97,232 (12%)	30,900 (7%)	160,709 (11%)						
Non U. S.	11,087 (7%)	33,618 (9%)	40,730 (14%)	126,502 (16%)	51,676 (12%)	168,272 (12%)						
Non Classified	5,199 (3%)	13,362 (3%)	19,035 (7%)	68,396 (9%)	18,524 (4%)	73,060 (5%)						
Totals	165,013 (100%)	372,720 (100%)	283,869 (100%)	800,274 (100%)	421,214 (100%)	1,457,299 (100%)						
	FY '76		TQ '76									
Federal Gov't. (less N.I.'s)	91,137 (22%)	463,032 (22%)	40,178 (39%)	170,010 (33%)								
NASA Investigators	72,847 (18%)	308,262 (15%)	7,155 (7%)	28,657 (5%)								
State/Local Government	14,103 (4%)	60,627 (3%)	975 (1%)	8,325 (2%)								
Academic	39,283 (10%)	196,795 (10%)	12,803 (12%)	50,110 (10%)								
Industrial	82,182 (20%)	424,090 (21%)	19,728 (19%)	120,756 (24%)								
Individuals	35,223 (9%)	252,819 (12%)	8,308 (8%)	61,700 (12%)								
Non U. S.	68,457 (17%)	343,930 (17%)	14,009 (14%)	69,747 (14%)								
Non Classified	1,874 (0%)	9,058 (0%)	248 (0%)	1,489 (0%)								
Totals	405,106 (100%)	2,058,612 (100%)	103,404 (100%)	510,794 (100%)								

*Based on Request Date.

NOTE: Dollar difference between product category and customer category is due to rounding for FY '73 and FY '74.

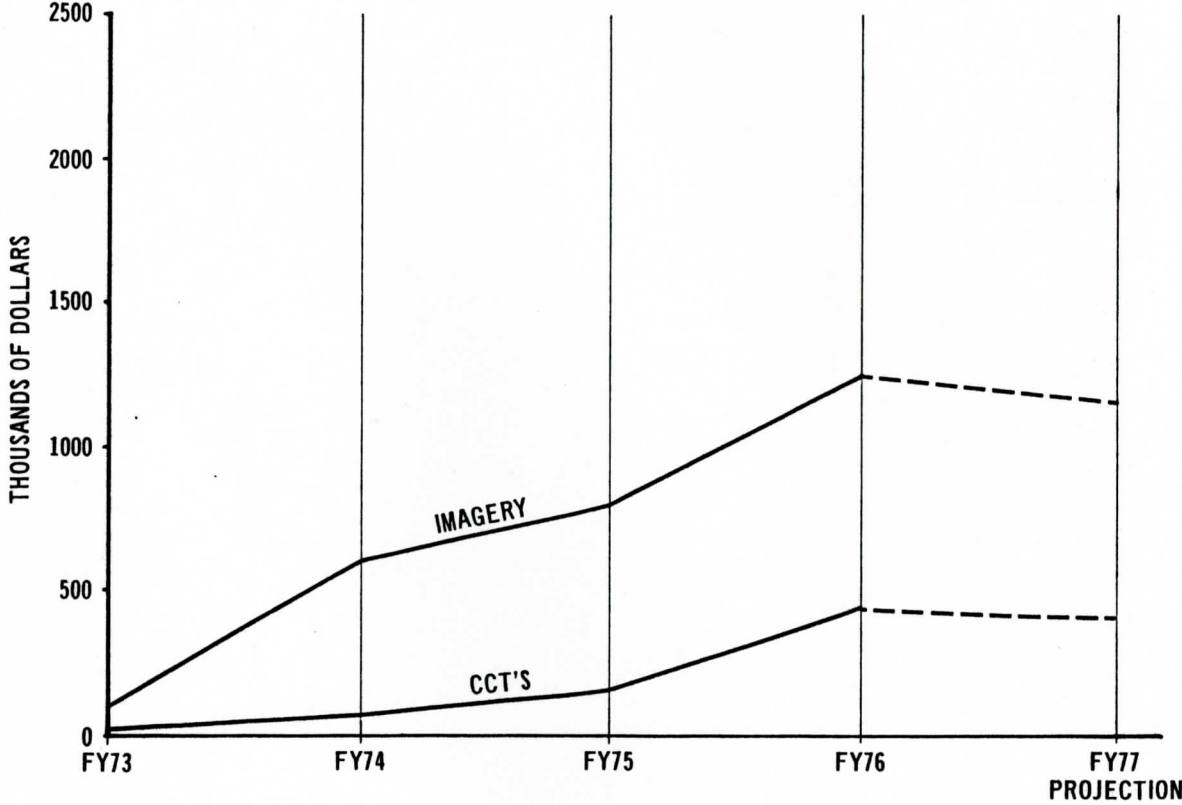
USER PROFILE OF CCT's
 (Based on Order Entry Date)
 January 17, 1977

<u>Category</u>	<u>Scenes</u>		<u>Dollars</u>		<u>Scenes</u>		<u>Dollars</u>	
	<u>FY '75</u>				<u>FY '76</u>			
Federal Govern. (Less N.I.'s)	162 (22%)	32,400 (22%)	563 (24%)	58,331 (14%)				
NASA Investigators	19 (3%)	3,800 (3%)	483 (21%)	96,600 (24%)				
State/Local Govern.	48 (7%)	9,600 (7%)	3 (0%)	600 (0%)				
Academic	182 (25%)	35,680 (25%)	272 (12%)	54,400 (14%)				
Industrial	195 (27%)	38,880 (27%)	522 (23%)	104,400 (26%)				
Individuals	11 (1%)	2,200 (1%)	38 (2%)	7,600 (2%)				
Non U. S.	108 (15%)	20,760 (14%)	403 (18%)	80,600 (20%)				
Non Classified	4 (0%)	800 (1%)	5 (0%)	1,000 (0%)				
Totals	729 (100%)	144,120 (100%)	2,289 (100%)	403,531 (100%)				

	<u>TQ '76</u>	
Federal Govern. (Less N.I.'s)	214 (21%)	18,842 (11%)
NASA Investigators	128 (13%)	25,600 (14%)
State/Local Govern.	1 (0%)	200 (0%)
Academic	59 (6%)	11,800 (7%)
Industrial	235 (23%)	47,000 (26%)
Individuals	9 (1%)	1,800 (1%)
Non U. S.	363 (36%)	72,600 (41%)
Non Classified	1 (0%)	200 (0%)
Totals	1,010 (100%)	178,042 (100%)

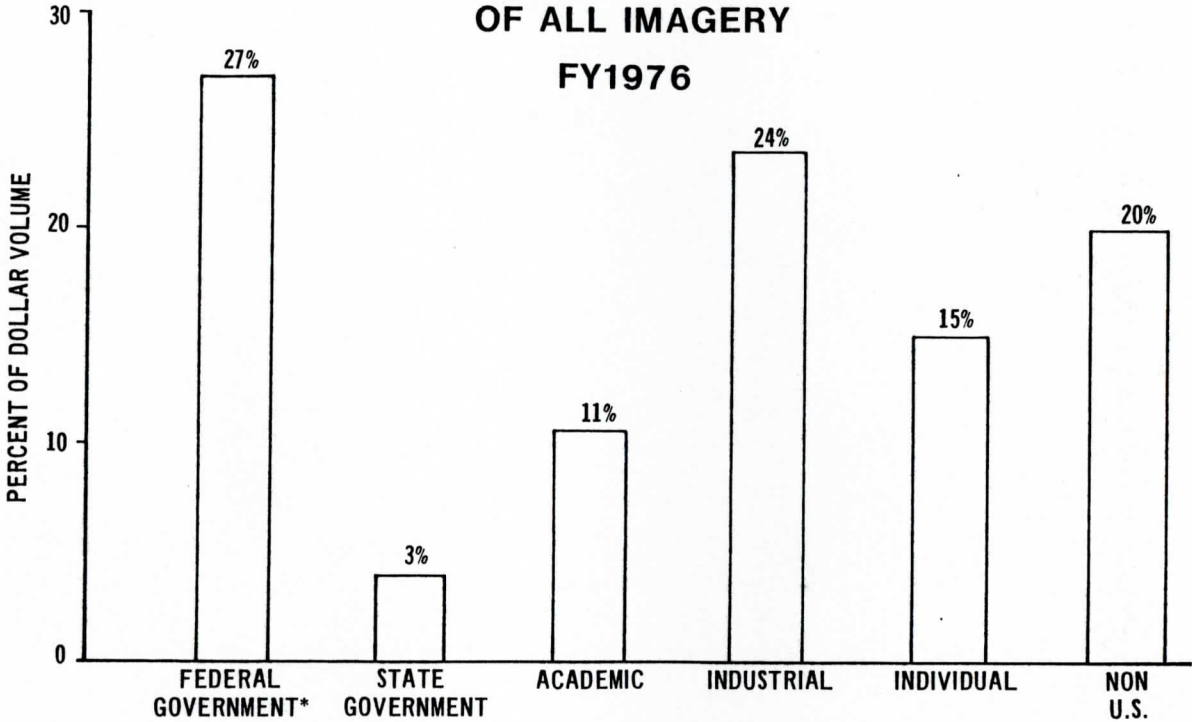
NOTE: No CCT customer categories are available for FY '73 and FY '74.

LANDSAT DATA SALES



8/13/77

**CUSTOMER PROFILE
OF ALL IMAGERY
FY1976**



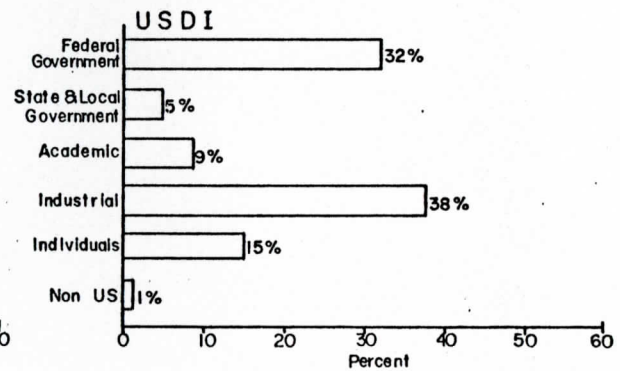
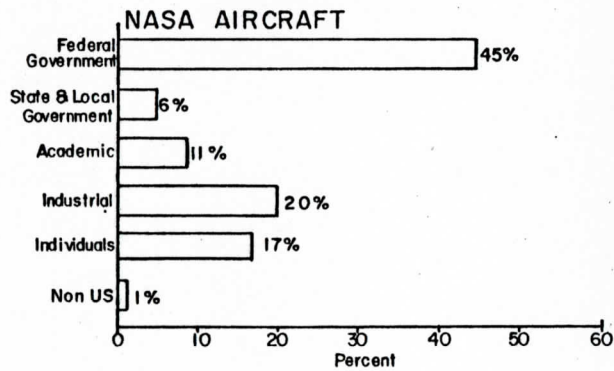
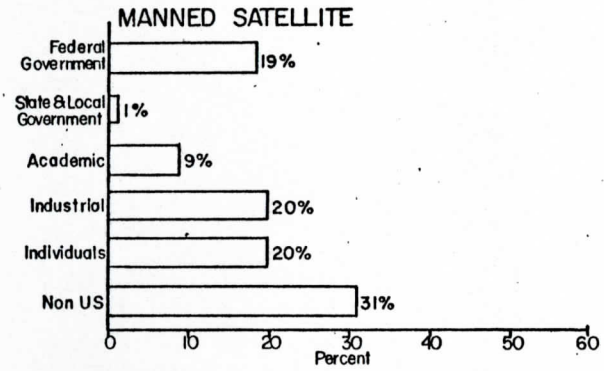
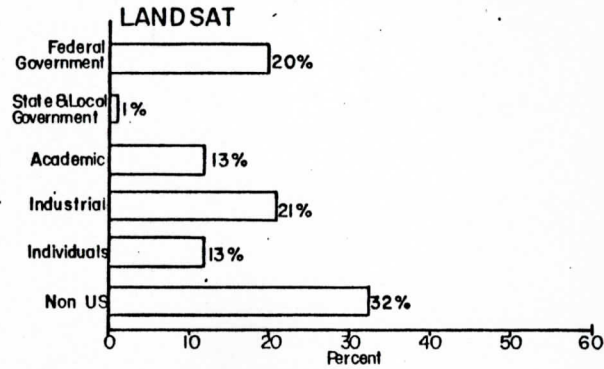
*Excludes NASA Investigators

VOLUME OF IMAGERY

by Agency Source

FY 76

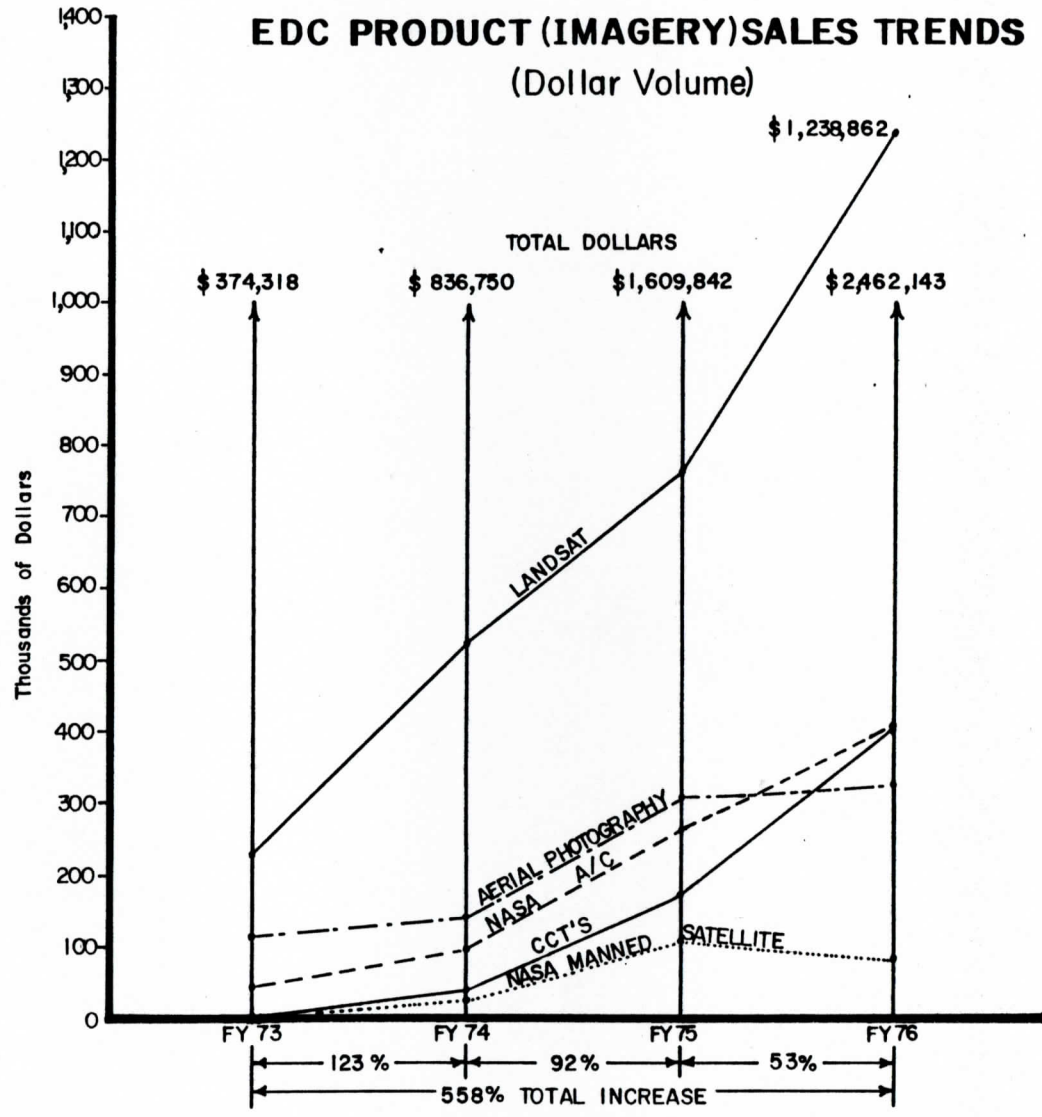
Does Not Include NASA Principals Investigators



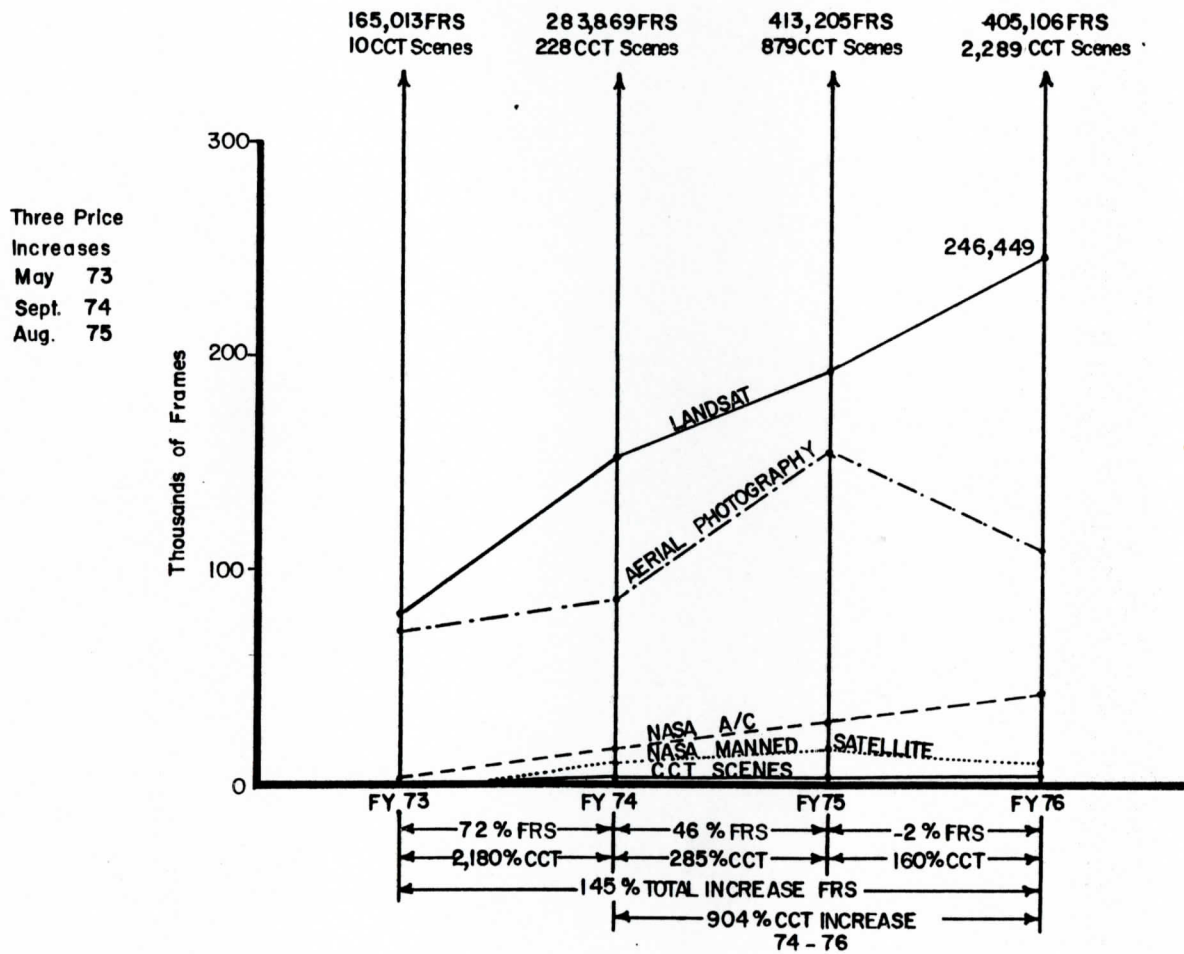
EDC PRODUCT (IMAGERY) SALES TRENDS

(Dollar Volume)

Three Price
Increases
May 73
Sept. 74
Aug. 75



EDC PRODUCT (IMAGERY) SALES TRENDS (Frame & CCT Volume)



SALES

(1,000's of Dollars)

December 7, 1976

<u>FY</u>	<u>Imagery w/o NI's</u>	<u>NI Imagery</u>	<u>CCT's w/o NI's</u>	<u>NI CCT's</u>	<u>TOTAL</u>
1975	1,441	--	169	--	1,610
1976	1,750	308	307	97	2,462**
1976 TQ	482	29	152	26	689**
1977*	3,080	60	495	15	3,650
1978*	3,929	--	560	--	4,489

<u>FY</u>	<u>All Imagery</u>	<u>All CCT's</u>	<u>TOTAL</u>
1975	1,441	169	1,610
1976	2,058	404	2,462**
1976 TQ	511	178	689**
1977*	3,140	510	3,650
1978*	3,929	560	4,489

*Estimated

**Excludes DBT's and Handcarries

FY 77 PLAN
Second Revision
August 16, 1977

Order Entry Sales Through July 29:	\$2,341,500
August (\$152.5K Imagery, \$21K CCT's)	173,500
September (\$163.0K Imagery, \$22K CCT's)	<u>185,000</u>
	\$2,700,000

Financial Plan FY 1977
(In Thousands of Dollars)
August 3, 1977

<u>Description</u>	<u>November 1976</u>	<u>August 1977</u>	<u>Difference</u>
Personal Services	335	309	- 26
Travel	20	12	- 8
Transportation of Things	4	4	0
Rents and Utilities	71*	106**	+ 35
Printing and Reproduction	15	15	0
Contractual			
Technicolor	1,600	1,590	- 10
Other	27	27	0
Supplies	520	500	- 20
Equipment	<u>146</u>	<u>292.3</u>	+ <u>146.3</u>
TOTAL	\$2,738	\$2,855.3	+ 117.3

*Postage: \$55K

**Postage: \$87K

USER SERVICES

User Services

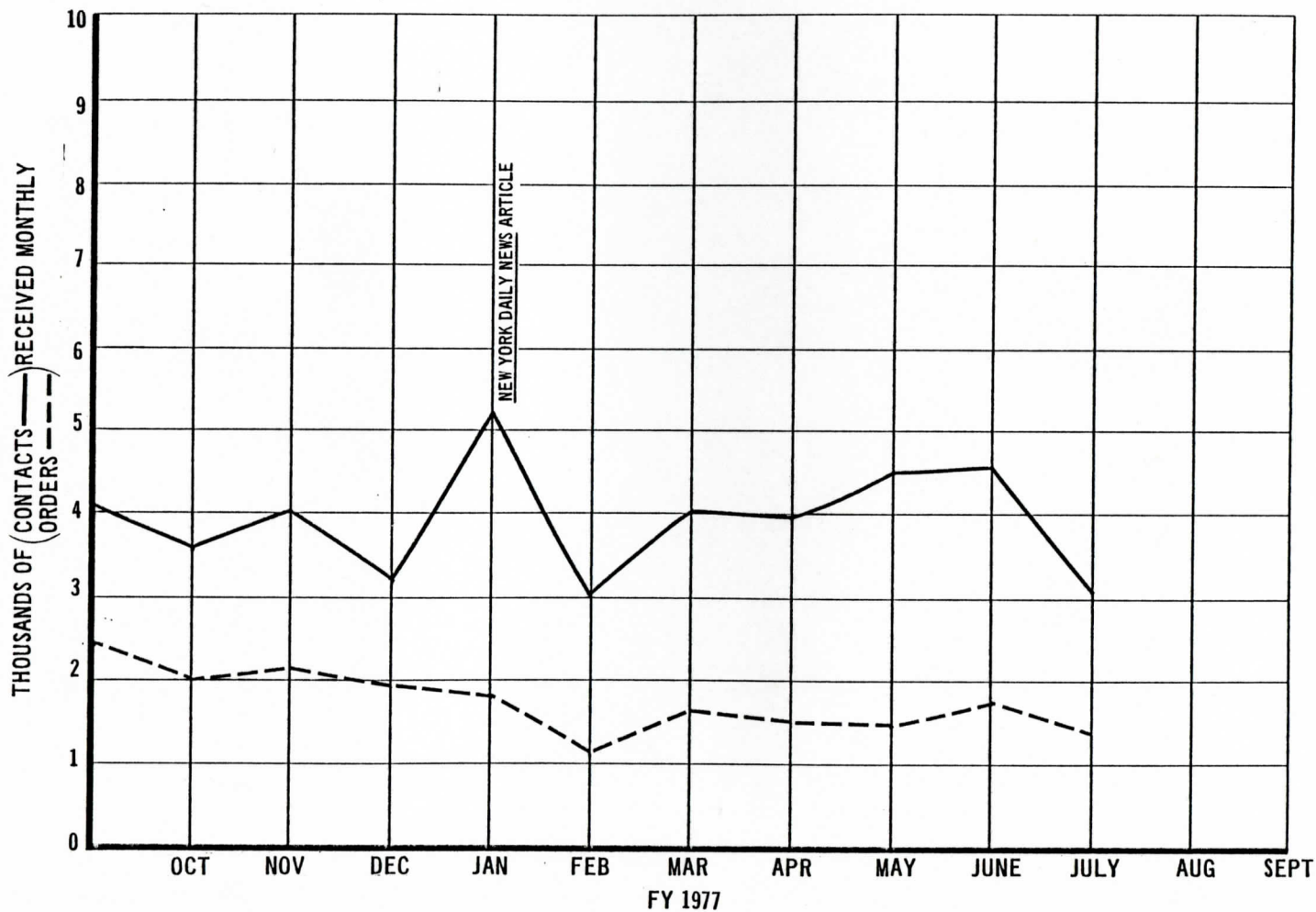
In addition to normal support activities provided this month, two special orders were received. The first was connected with a recent visit by the First Lady to Costa Rica and was an order for special Landsat data for that country's natural resources inventory program. The second was connected with the Johnstown flood in Pennsylvania for which Landsat images will be used in evaluating the effects. EDC is coordinating the above two orders with NASA.

Production activity within User Services indicated a slight downward trend throughout this reporting period. Sales for USDI Aircraft imagery declined by \$40,000 and the miscellaneous sales category declined by \$35,000. Together they account for a decrease in overall order activity during the month.

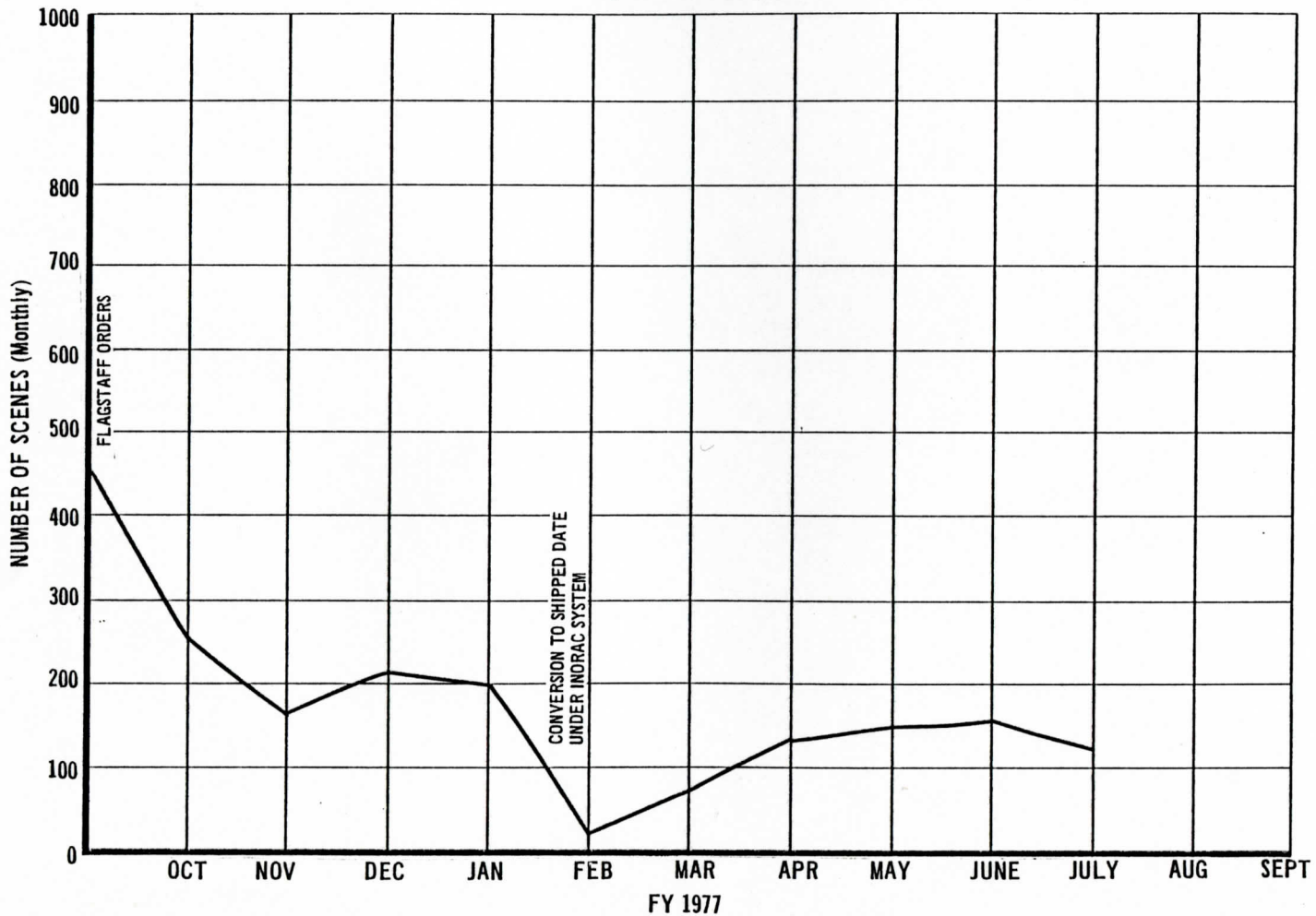
A re-evaluation of the EDIES order entry processing procedure within User Services resulted in definition of unique product codes for EDIES products. This will allow order statusing and tracking by scene ID for all EDIES orders and will also provide better management reporting of the miscellaneous sales activity.

Several INORAC system improvements are in progress. These include batch scheduling for inquiries and microfilming and purging of customer records. Work on incorporating the EDIPS system into User Services procedures is also in progress and will be ongoing.

USER SERVICES ACTIVITY (Monthly)



COMPUTER COMPATIBLE TAPES (CCT'S) ORDERED (Monthly)



The following User Services INORAC processing statistics are gathered from the monthly account activity report:

<u>Transaction</u>	<u>Quantity</u>	<u>Amount</u>
Accounts Created	819	
Money Contacts Received	791	117,483.53
Government Payments Credit	98	89,886.50
No Money Contacts Received	1,387	
Orders Processed	1,370	239,443.73
Research Inquiries Processed	3,389	
Refund Vouchers Processed	45	785.40
Returned Products Credit	58	6,520.00

Incoming orders and inquiries totaled 3,141 for the month.

Letters typed totaled 247

General Information packets sent totaled 487.

Visitors in the Browse totaled 260 people representing 10 foreign countries and 26 states.

MONTHLY PRIORITY REPORT

DATE 7/29

PRIORITIES:

RECEIVED MONTH OF	<u>July</u>	<u>51</u>
COMPLETED ON TIME	<u>39</u>	
COMPLETED LATE	<u>2</u>	
TOTAL COMPLETED		<u>41</u>
IN SYSTEM AT END OF MONTH		<u>16</u>

CUSTOM PRODUCT ORDERS:

RECEIVED MONTH OF	<u>July</u>	<u>53</u>
COMPLETED		<u>50</u>
IN SYSTEM AT END OF MONTH		<u>12</u>

REMARKS:

TOTAL PRIORITY FRAMES PRODUCED	<u>178</u>
DOLLAR VALUE OF PRIORITY IMAGERY	<u>\$5169⁰⁰</u>
LESS: LATE PRIORITY REFUNDS	<u>1164⁰⁰</u>
NET PRIORITY DOLLAR VALUE	<u>\$4005⁰⁰</u>
AVERAGE NUMBER OF PRODUCTION DAYS PER ORDER	<u>2.78</u>

11/2

STANDING REQUEST CLERK END OF THE MONTH REPORT

Current active Standing Requests on file 64

Standing Requests added 9

Standing Requests deleted 6

Report only Requests 31

Auto-Order Requests 33

Report only added 5 Deleted 4 Total 31

Auto-Orders added 4 Deleted 2 Total 33

of SRS Information Sheets Sent 2

SRS ORDERS FOR THE MONTH

of orders accepted for this month 54

Dollar value of orders for this month \$6,208.00

STANDING REQUEST CLERK Jean Hook

For the month of July 1977

The table below summarizes outstanding CB's over 30 days.
The summary includes CB's issued during Fiscal Year 76' and
77 only.

<u>Time Frame</u>	<u>Number of CB's</u>	<u>Amount</u>
90 Days & Over	17	5,602.00
	5	<u>2,975.00*</u>
Total Outstanding CB's		\$8,577.00

*outstanding CB's posted to Standing Accounts.

\$4,717.00 - Charged against Letters of Credit.

Month Of: July

Prepared By: Dee Rons

Monthly Summary Sheet (DRF)

Date	On Hand Sales	Order Sales
6/29		495.00
6/30	3.00	3407.00
7/01	4.50	78.00
7/05	26.25	73.00
7/06		188.00
7/07		24.00
7/08	4.25	106.00
7/11	4.50	54.00
7/12		48.00
7/13	1.25	39.00
7/14	12.00	3.00
7/15	4.25	99.00
7/18		90.00
7/19		89.00
7/20		39.00
7/21	3.00	25.00
7/22	23.00	53.00
7/25	16.00	422.00
7/26	1.50	34.00
7/27	5.00	161.00

Total _____

Total _____

Combined Total _____

01/09/76

An adding machine tape and the master cash
tape has been forwarded to the Chief, User
Services verifying these figures

EDC Form US 16

MONTHLY COMPLAINT SUMMARY

FOR THE MONTH OF *July*

		TOTAL NUMBER	PERCENT
ORDER PROBLEMS	RESEARCH ERRORS	8	.31
	CONTROL ERRORS	2	.08
	LETTER ERRORS	1	.04
	ORDER ERRORS	7	.27
	CUSTOMER ERRORS	(7)	—
	EXCESSIVE CLOUD COVER	2	.08
	WRS PROBLEMS	3	.12
	ERRORS CAUSED BY DRFS	3	.12
TOTAL ORDER PROBLEMS		26	1.02

PRODUCTION PROBLEMS	PHOTOGRAPHIC QUALITY	18	.70
	COSMETIC QUALITY	0	0
	PRINTING ERROR	10	.39
	DATA BASE ERROR	2	.08
	SLOW SERVICE	2	.08
TOTAL PRODUCTION PROBLEMS		32	1.25

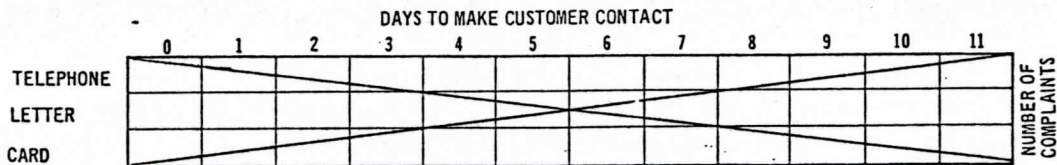
SHIPPING PROBLEMS	ORDER NOT RECEIVED	4	.16
	RECEIVED WRONG ORDER	0	0
	ITEMS MISSING IN ORDER	5	.20
	DAMAGED IN SHIPMENT	1	.04
TOTAL SHIPPING PROBLEMS		10	.40

COMPUT. PROB.	COMPUTER ERRORS	0	0
	CCT PROBLEMS	2	.08
TOTAL COMPUTER PROBLEMS		2	.08

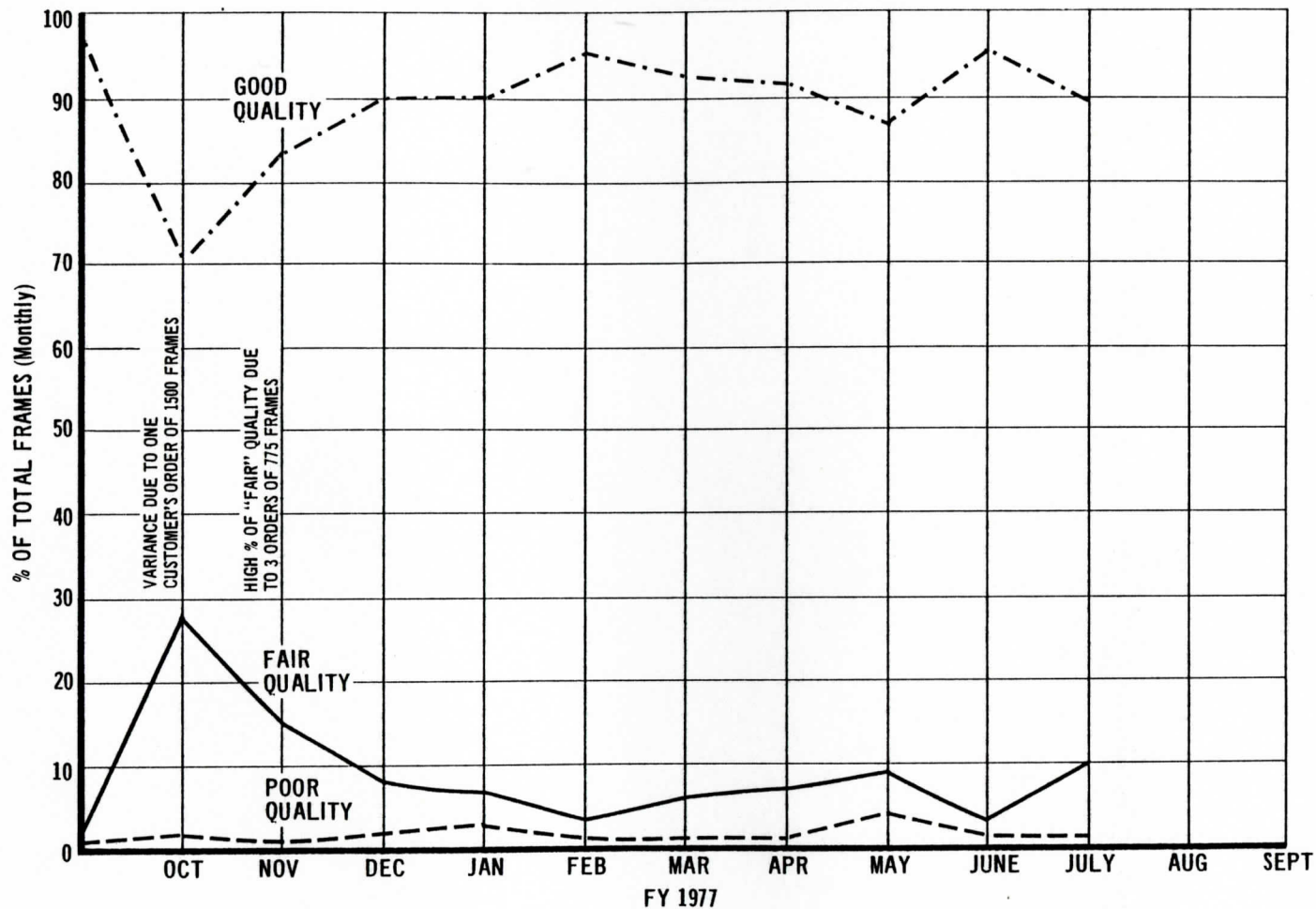
Letters 39

Orders 57

TOTAL ORDERS SHIPPED	2542	100.00%
TOTAL ALL PROBLEMS	70	2.75
REFUNDS	4	.16



CUSTOMER RESPONSE TO PHOTOGRAPHIC PRODUCTS (Based on Cards Returned Monthly)



CUSTOMER RESPONSE CARD SUMMARY

(WEEKLY/MONTHLY)

MONTHLY SUMMARY

ITEMS	TOTAL	%
ORDERS	393	
NUMBER OF FRAMES	5259	
QUALITY	GOOD	89%
	FAIR	10%
	POOR	01%

REPORTING PERIOD

June 30, 1977 TO *July 27, 1977*

SUBMITTED BY: *K.A. Schmidt*

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTAL FRAMES	TOTAL ORDERS
FRAMES	GOOD			38	77	115	
	FAIR			4	46	50	
	POOR			0	0	0	
	NUMBER OF ORDERS			17	17	165	34

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTAL FRAMES	TOTAL ORDERS
FRAMES	GOOD	<i>Holiday</i>	86	4	38	2,100	
	FAIR	<i>Holiday</i>	28	0	29	134	
	POOR	<i>Holiday</i>	12	0	0	4	
	NUMBER OF ORDERS	<i>Holiday</i>	40	4	12	27	2435

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTAL FRAMES	TOTAL ORDERS
FRAMES	GOOD	1,168	3	58	227	64	1520
	FAIR	4	0	0	6	1	11
	POOR	26	0	0	1	0	27
	NUMBER OF ORDERS	42	3	14	20	16	1558

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTAL FRAMES	TOTAL ORDERS
FRAMES	GOOD	291	35	10	61	88	485
	FAIR	14	3	4	3	6	30
	POOR	5	6	0	0	1	12
	NUMBER OF ORDERS	51	10	10	22	17	537

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTAL FRAMES	TOTAL ORDERS
FRAMES	GOOD	206	88	31			325
	FAIR	237	1	1			239
	POOR	8	1	1			10
	NUMBER OF ORDERS	54	8	9			574

CUSTOMER RELATIONS
COMPLAINT ACTIVITY SHEET
(Weekly/Monthly)

SUMMARY

COMPLAINTS	TOTALS
RECEIVED	88
IN ACTION	16
COMPLETED	98

REPORTING PERIOD

June 30, 1977 TO July 27, 1977

SUBMITTED BY: K.A. Schmidt

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTALS
RECEIVED	/	/	5	4	3	12
IN ACTION	/	/	14	14	11	11
COMPLETED	/	/	16	4	6	26

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTALS
RECEIVED	/ Holiday	6	5	2	3	16
IN ACTION	/ Holiday	14	19	17	20	20
COMPLETED	/ Holiday	3	1	4	0	8

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTALS
RECEIVED	4	7	4	6	2	23
IN ACTION	17	23	23	24	21	21
COMPLETED	7	1	4	5	5	22

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTALS
RECEIVED	2	12	6	5	2	27
IN ACTION	19	26	32	26	19	19
COMPLETED	4	5	0	11	9	29

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	TOTALS
RECEIVED	3	7	/	/	/	10
IN ACTION	9	16	/	/	/	16
COMPLETED	13	0	/	/	/	13

Data Management

During July shipments of film from the Mapping Centers continued to increase. The total number of rolls received in July was 304. No problems have occurred with processing the film on arrival, however there have been problems with orders submitted while the film is in shipment. These situations are being resolved through very close interface between Data Management, User Services, and the Mapping Center involved.

There has been an increase in the number of rolls loaned to the Mapping Centers to allow them to process special projects. In July, 48 rolls were sent to the centers. Strict control is being maintained to ensure that all rolls are correctly tracked as to location and availability within EDC during the period they are on loan.

The COM microfiche for Landsat WRS listings was received in July, and subsequent evaluation was made by Product Development. Data Management had generated the data tapes and arranged for the microfiche to be produced at a service bureau in Omaha, Nebraska. Upon receipt of the completed microfiche, Data Management then duplicated it on the OP50/80 diazo duplicator. The total number of duplicate fiche produced was 9,700, representing 25 complete sets of the fiche. Distribution will be made in the first part of August, along with accompanying documentation.

Action has been taken to establish an alternate delivery system for Landsat data received from Goddard. This will be necessary from September 7, 1977, to October 7, 1977, while construction at the Sioux Falls airport prohibits air freight service. It is proposed to utilize United Parcel Service, and Goddard has stated that this method can be used without any problems on their part. A definite procedure will be finalized in early August.

A second roll adapter station was installed in mid-July. Some minor changes and calibrations were necessary, but none of these were of major consequence and the station is currently on-line. The additional station will speed up production of the DMA film scheduled for processing.

Continuing contacts with Bell and Howell are being maintained during the assembly building of the new microfiche camera system. Bell and Howell will supply blueprints of the format as requested by EDC, and at this date no problems are foreseen with the November 1 delivery schedule.

Due to software development problems, JSC has postponed delivery of the tape written in the new format agreed to recently. All software change required at EDC to process the new tape format are complete, as reported last month. JSC will advise Data Management when the new tape will be available and possibly at that time will re-schedule their visit to EDC.

Work on the entry of JSC aircraft data was completed this month. A total of 137 missions have been processed which represents 57,243 accessions (or 267,401 frames). Of the total frames, 112,050 were processed interactively through the B6700. Graf/Pen activities will now be concentrated on imagery supplied by the Bureau of Land Management and the Defense Mapping Agency. Graf/Pen production in July was as follows:

Frames Digitized	4,961
Frames Added	3,148
Accessions Added	622
Frames Per Accession	5.1
Rolls Added	22
Frames Per Hour	47.1

MAIN IMAGE FILE ACTIVITY

July, 1977

USGS

ROLLS AT EDC	13,071	FRAMES	1,901,774	GEOREF ACCESSIONS	
ROLLS AT MAPPING CENTERS	<u>1,376</u>	FRAMES	<u>236,397</u>	BLOCK	53,283
	14,447		2,138,171	STRIPS	<u>617</u>
					53,900

All USGS film is geographically retrievable since all photo indices are entered into the Main Image File. Photo indices are entered as a block accession. Mapping Centers shipped 304 rolls to EDC in July. EDC loaned 48 rolls to the Mapping Centers for their use in special projects.

ARMY
AIR FORCE
NAVY

ROLLS AT EDC	4,596	FRAMES	598,797	GEOREF ACCESSIONS	
				BLOCK	717
				STRIPS	8,972

Those rolls of non-Alaskan imagery are retrievable through the block accessions.

Selected rolls of Alaskan coverage are retrievable in strip accession format.

Film received from Defense Mapping Agency was included in the Army-Air Force holdings.

USBLM
USBR

ROLLS AT EDC	1,509	FRAMES	339,157	GEOREF ACCESSIONS	
				BLOCK	422

No major activity took place in July.

LANDSAT 1
LANDSAT 2

GEOREF ACCESSIONS 255,999

Landsat imagery as contained in the Main Image File is as follows.

<u>Latest Imagery Available</u>		<u>Latest Microfilm Reference</u>	
Landsat 1 (1,811)	July 8, 1977	Landsat 1 (1,547)	February 21, 1977
Landsat 2 (901)	July 11, 1977	Landsat 2 (704)	March 24, 1977

MAIN IMAGE FILE ACTIVITY - JULY 1977

July input amounted to 3,778 scenes of Landsat imagery. This represents 15,112 frames of imagery.

AMES

ROLLS AT EDC	2,501	FRAMES	321,799	GEOREF ACCESSIONS	
				STRIPS	44,106
				SINGLE FRAME	23,097

A master tape of all Ames data available was received from Ames. This tape is being used to verify Ames data input and to make some minor corrections to data presently contained in the Main Image File. All changes are non-geographic in nature.

JSC - NASA AIRCRAFT

ROLLS AT EDC	6,015	FRAMES	966,514	GEOREF ACCESSIONS	
				STRIPS	49,007
				SINGLE FRAME	14,076

Missions Between MX 1 and MX 99

These missions are not geographically retrievable from the Main Image File. On request, Data Management can order the original roll of film from the National Records Center. A duplicate copy is made for our archive and the original returned to the National Records Center. These rolls are entered into the Main Image File in minimum data format.

Missions Between MX 100 and MX 278

All missions have been completed and entered into the Main Image File. All data now contains correct quality and cloud cover values.

Missions Between MX 279 and MX 354

All film received is available in minimum data format.

NASA - SKYLAB

ROLLS AT EDC	634	GEOREF ACCESSIONS	
		SINGLE FRAME	38,767

Handheld camera data and S192 film roll data are entered into the Main Image File in minimum data format. There are no plans at present to process this data so as to be available in a geo-retrievable format.

MAIN IMAGE FILE ACTIVITY - JULY 1977

We continue to use the manual geographic retrieval system for S192 CCTs and imagery.

WALLOPS/JFK

ROLLS AT EDC	1,094	FRAMES	82,652	GEOREF ACCESSIONS
				NONE

At present none of this imagery is geographically retrievable. Roll data is available in minimum data format.

MARSHALL

ROLLS AT EDC	40	FRAMES	7,693	GEOREF ACCESSIONS
				STRIPS 783
				SINGLE FRAME 491

No major activity took place in July. One additional roll was acquired.

USCE

ROLLS AT EDC	46	FRAMES	18,911	GEOREF ACCESSIONS
				NONE

All rolls are available in minimum data format.

MANNED SPACECRAFT - APOLLO/GEMINI

ROLLS AT EDC	122	FRAMES	14,406	GEOREF ACCESSIONS
				SINGLE FRAME 470

MAIN IMAGE FILE ACTIVITY - JULY 1977

MAIN IMAGE FILE MAINTENANCE

The Main Image File updates averaged 391.9 per day or 7,838 for the month of July. Each update averaged 35.6 seconds.

Sieve Report:

- Landsat: Very clean as 58,800 records were passed through with less than 250 updates.
- JSC: Updates were very few for the 1,600 accessions.
- Skylab: The remaining 25% (12,000) of the records were passed through the Sieve. Approximately 50% (19,000) of the total Skylab records (38,000) have been updated.
- Agency 1: The updating of sensor, focal length, image class, date taken, film, and location has begun. Approximately 400 rolls have been processed with 370 updates being submitted.

No changes to Data Base Manual.

MAIN IMAGE FILE PROGRAMS

Three PRFs:

1. The Graf/Pen software is to be modified to accept Agency B (USAF) for accession types A and B.
2. GR10 should establish specified map field to determine the updated record which should fall within a predetermined field. This PRF was cancelled as programming support would be at expense of the on-line graphics program.
3. Program DE018 must be modified for the quality code in Band 4 which is WORD 18, Bits 24-31, to accept M rather than leaving it blank. Also, Program DE017-1 should also print out M - Frame 0.

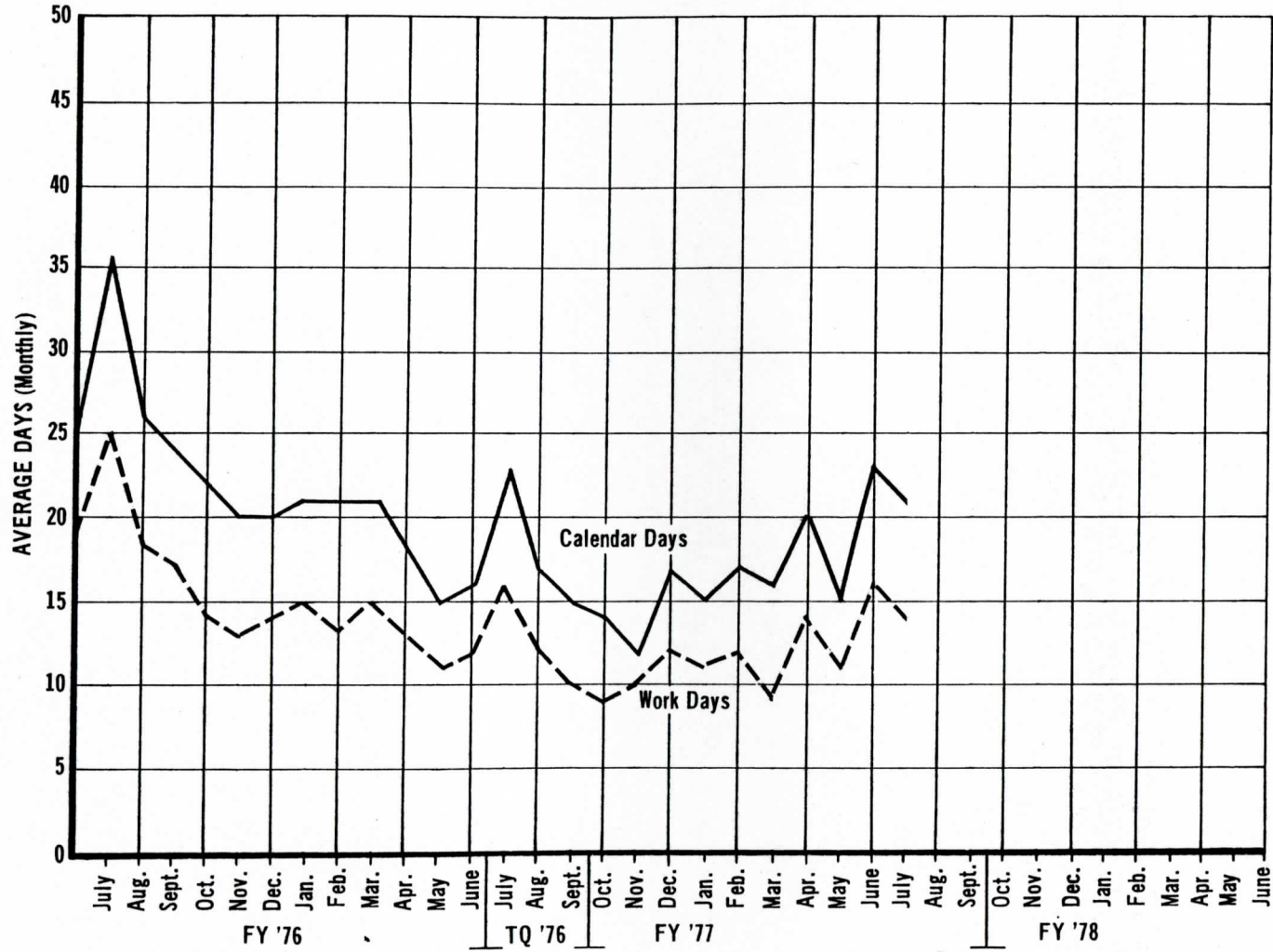
Two ADPs:

1. DE015 - Ames Edit - the panoramic film is not stored in the MIF. The program should be changed for such sensors as C04, C09, so they are acceptable.
2. GR004 - the accessions continue to run off a 4 x 6 map when plotting. The list center point should be printed with its corresponding roll and frame number.

MAIN IMAGE FILE AS OF JULY 31, 1977

	<u>FILM ROLLS</u>	<u>FRAMES</u>	<u>GEOREF ACCESSIONS</u>
Apollo/Gemini Space Photography	122	6,000	470
Skylab Imagery	634	44,845	38,766
Landsat Data (MSS-RBV)	<u>5,794</u>	<u>1,023,996</u>	<u>255,999</u>
TOTAL SPACE DATA	6,550	1,074,841	295,235
NASA Research Aircraft Imagery	9,933	1,413,926	131,986
USDI Aerial Mapping Photography	<u>20,794</u>	<u>3,112,725</u>	<u>65,249</u>
TOTAL AIRCRAFT DATA	30,727	4,526,651	197,235
<u>TOTAL EROS DATA CENTER HOLDINGS</u>	<u>37,277</u>	<u>5,601,492</u>	<u>492,470</u>

LANDSAT IMAGERY TURNAROUND TIME (Date of Exposure to Date Received at EDC)



ACTIVITY ANALYSIS OF COMPUTER COMPATIBLE TAPES

<u>Month</u>	<u>Scenes Ordered from Goddard</u>	<u>Scenes Reordered from Goddard</u>	<u>Scenes Cancelled by Goddard</u>	<u>Scenes Cancelled by Customer</u>	<u>Scenes Delivered to Computer Branch</u>	<u>Scenes Pending Shipment from Goddard</u>
FY 1977 Average	197	15	5	5	185	171
July	132	20	5	1	161	178

ADDITIONS TO THE MAIN IMAGE FILE DURING JULY 1977

<u>Agency</u>	<u>Rolls Film</u>	<u>Photo Indices</u>	<u>Annotation Tapes</u>	<u>Annotation Microfilm</u>	<u>Imagery Microfilm</u>	<u>EDC Generated Composites</u>
USGS	278	183	-	-	-	-
AMS	-	-	-	-	-	-
LANDSAT	91	-	-	-	-	263
AMES	12	-	-	-	-	-
JSC AIRCRAFT	7	-	-	-	-	-
JSC SKYLAB	-	-	-	-	-	-
USBLM/USBR	-	-	-	-	-	-
WALLOPS	-	-	-	-	-	-
JFK/MSFC	1	-	-	-	-	-

PHOTO LAB

Photographic Laboratory

The Production Lab and Custom Lab produced 20,764 acceptable images during the month. This is a decrease from the previous month and seems attributable to the overall decrease in order activity experienced in the month of July. Production Systems Engineering has been giving full attention to isolating and resolving the causes of the problems in several areas. Good progress has been made -- for example, the "blue streaks" occurring on the 1811 Processor were eliminated -- and representatives from Kodak have been on-site at numerous times during the month. Details on specific actions taken can be found in the Production Systems Engineering section of this report.

Testing of color negative materials continued in July with assistance from Production Systems Engineering. Tests are almost complete, and a report will be submitted by mid-August.

Procurement actions on the original-film processor and the Colorado continuous printer are still in the hands of Contracts, USGS, Denver. In response to a request regarding the procurement action on a DeVere color enlarger, the Photo Lab is currently preparing a sole-source justification document for that equipment.

Production Systems Engineering

The EDIPS projects currently in progress include:

- An evaluation of the ideal density range of EDIPS B/W positive film products for customer use.
- Continuation of the feasibility study on producing negative film products on direct reversal film from EDIPS negative reproducibles.

EDIPS projects completed this month included:

- Definition of manpower requirements and training plan schedule for the Photo Lab. A report was submitted to the EDIPS Task Force.
- Impact study on use of the first-generation film from the HRFr as a working reproducible. Based on the analysis, a decision was made to use the first-generation system.

The paper print color balancing system that was implemented in June has been operational for one month. This system, using an electronic color balance analyzer, results in each scene being individually color corrected to achieve as near perfect a print as possible. The reports from Product Inspection indicate that the prints represent an improvement in color balance quality and consistency over those produced previously.

The problems of density streaks on the 11CM processor and the Kodak 2460 film for the HRFr remain unsolved. Kodak representatives made another trip to the Data Center but were unable to establish any positive results. In the meantime a workaround of processing the film emulsion-side down has resulted in minimal streaking and no loss in production. This method is strictly temporary, and PSE is continuing to work with Kodak to arrive at a permanent solution to the problem.

The "blue streaks" that were occurring on the 1811 processor with Kodak 2447 color film were the subject of continuing tests and studies by Kodak representatives in July. When they were unable to arrive at a solution, the processor was turned over to PSE for study. PSE was able to isolate the cause of the problem to a cross-over rack and was able to control the degree of streaking by adjusting the rack. Although the problem has been resolved, additional tests will be made to determine exactly why the maladjusted rack could cause the streaks. It should be noted that the racks were set to Kodak specifications when the streaks occurred and that PSE is working with Technical Engineering Services and Kodak to establish improved adjustment methods for the future.

The color composite production system has been under review to find methods of improving product quality and decreasing the rejection rate. The first change made was to standardize the exposures given to the black-and-white intermediate stages, resulting in a more consistent product. After that, the rejection rates were studied to determine the greatest causes of rejection. They were found to be:

- 1) Blue streaks and static marks have been causing a higher than normal rejection rate. The blue streaks have been resolved, as discussed above, and the static marks have been drastically reduced by changing some of the methods of producing the composites. Additional static elimination equipment has been ordered, which should further reduce the possibility of rejections due to the static discharges.
- 2) The reject rate due to incorrect color balance was decreased by changing the existing procedure of controlling the tri-color exposure calculation.
- 3) Image misregistration. This problem is presently under study and will be resolved during August.

The Cibachrome color print production system has undergone several changes to improve quality and consistency. Although these changes helped, key problems continued to be the quality of the rawstock received from Ilford and failures of the Autopan processor used in Cibachrome production. At the end of this reporting period, the materials received from Ilford had improved in quality as a result of new emulsion coating process, but the processor was continuing to streak and discolor all 40-by-40-inch prints. This problem appears to be due to malfunctioning valves which will be corrected during the first part of August.

The sensitometry/rawstock testing program accounted for 95 man-hours in rawstock testing and 65 man-hours in production of process control materials. During the month, the SDA sensitometer had several mechanical failures, resulting in 48 hours of downtime and the loss of 1,100 feet of sensitized materials.

The PDP-14/30 Controller, which controls the Chemical Management System, remained operational throughout the month, with no substantial problems following the replacement of the memory circuit boards in June.

The aerator in Pond One was turned on, concluding the rebuilding operations in May and June. This system is now operating without any problems.

The volume of R-5 bleach/fix mixed this month was higher than normal due to dumping and cleaning of the color developer system. The volume of EA-5 fix was also high due to the tests made to eliminate the "blue streak" problems.

PSE efforts next month will include:

- Work on the B/W film streaking problem.
- Work on improving the work order system and the raw-stock testing program. (Due to high quantity of production problems in the Photo Lab, no time was allocated to these projects during July.)
- Evaluating Kodachrome II B/W photographic paper as a replacement for polycontrast paper. The Kodachrome II may give increase contrast control and result in an improved final product.
- Determining suitable replacement materials for all GAF products used at EDC. (GAF has discontinued production of photographic products.)
- Assisting in the changeover from an E-4 to E-6 processing system for Ektachrome slide film.
- Continuing the study of Landsat color composite production rejection rate in order to reduce it further.

July 1977

STATISTICS BY PRODUCT SIZE:

LANDSAT B/W:

70mm Film	1,799
9.5" Paper	1,821
9.5" Paper (HRFR)	16
20" Paper	362
40" Paper	574

LANDSAT COLOR:

9.5" Film	249
9.5" Film Original	793
9.5" Paper	307
20" Paper	312
40" Paper	256

AIRCRAFT BLACK/WHITE:

70mm Film	45
9.5" Paper	6,488
9.5" Film	349
20" Paper	69
30" Paper	63
40" Paper	40

SMALL PHOTO INDICES	470
LARGE PHOTO INDICES	15
TOTAL PRIORITIES	209

AIRCRAFT COLOR:

70mm	3
9.5" Paper	1,143
9.5" Film	1,573
20" Paper	118
30" Paper	74
40" Paper	218

SKYLAB BLACK/WHITE:

70mm Film	32
5" Film	3
9.5" Paper	7
20" Paper	9
40" Paper	28

SKYLAB COLOR:

70mm Film	476
5" Film	23
9.5" Paper	51
20" Paper	37
40" Paper	28

MICROFILM AIRCRAFT:

16mm X 100' B&W	18
16mm X 100' Color	17
35mm X 100' Color	2

TOTAL FRAMES - PRODUCTION LAB - 19,498

July 1977

STATISTICS BY PRODUCT SIZE: (Custom Laboratory Products)

GOING THROUGH DISSEMINATION:

35mm Film Slides	773
5" Film	2
5" Paper	13
9.5" Film	53
9.5" Paper	29
20" Paper	10
30" Film	3
30" Paper	63
40" Paper	21
Cibachrome	45
Other (Odd Size)	205
Rolls Processed and Mounted	49
PRIORITIES	11

CUSTOM LAB PRIORITIES ----- 11

PRODUCTION LABORATORY PRIORITIES ----- 209

TOTAL PRIORITIES ----- 220

PRODUCTION LABORATORY TOTAL FRAMES ----- 19,498

CUSTOM LABORATORY TOTAL FRAMES ----- 1,266

GRAND TOTAL OF FRAMES ----- 20,764

July 1977

PRODUCTION RATES

Printers

(Twenty Working Days)

<u>Printer</u>	<u>Production Time</u>	<u>Test Time</u>	<u>Average Daily</u> <u>Operating Time</u>
	(Hours)	(Hours)	(Hours)
Niagara	11.16	1.67	.64
ECP 70"A"	.75	—	.04
ECP 70"B"	98.33	5.13	5.17
Colorado	37.33	14.84	2.61
K&E "A"	13.50	1.33	.74
K&E "B"	116.76	5.58	6.12
Mark II "B"	43.08	3.25	2.32
Mark II "C"	24.67	4.09	1.44
3 X C	5.42	1.58	.35
Vacuum Frame "A"	93.49	8.51	5.10
Durst "A"	101.75	14.17	5.80
Durst "B"	13.67	3.08	.84
Durst "C"	70.33	1.50	3.59
Color Beseler	12.83	2.25	.75
Mark III	37.33	4.67	2.10
PSE	—	2.33	.12
Modified Mark II	2.28	2.25	.23
Devere "A"	117.58	15.00	6.63
Mark IV	79.50	6.58	4.30
Vacuum Frame "B"	38.67	5.17	2.19
Mark II "A"	112.83	3.92	5.84
EDC "X"	100.00	5.87	5.29
SP 1070/C	—	.17	.01
6X Paper	35.78	9.25	2.25
Devere "B"	96.33	15.33	5.58
Itek	2.75	.25	.15

PRODUCTION RATES (continued)

Printers

<u>Printer</u>	<u>Production Time</u>	<u>Test Time</u>	<u>Average Daily Operating Time</u>
Sickles	33.75	.50	1.71
B/W Beseler	3.75	--	.19
K&E Copy Camera	19.58	6.00	1.28
Morse	5.00	--	.25
Vacuum Frame "C"	10.00	--	.50
Vacuum Frame "D"	3.50	--	.18
K&E "B"	--	.17	.01

July 1977

PRODUCTION RATES

Processors

<u>Processor</u>	<u>Production Time (Hours)</u>	<u>Ave. Daily Production Time (Hours)</u>
11CM "A"	16.58	.83
11CM "B"	33.02	1.65
R5B	149.11	7.46
1811	76.94	3.85
52" B/W	113.70	5.69
242	13.33	.67
B/W Allen	7.00	.35
E4	109.00	5.45
Automat	120.17	6.01
Hand	8.75	.44
Wet	7.00	.35

July 1977

FINAL PRODUCT INSPECTION

<u>Type</u>	<u>Inspection Time/Hours</u>	<u>Average Daily Inspection (Hours)</u>
70mm B/W Film	34.76	1.74
9.5" B/W Film	22.44	1.12
9.5" Color Paper	9.76	.49
20" Color Paper	8.52	.43
30" Color Paper	.30	.02
40" Color Paper	10.05	.50
9.5" Color Film	46.86	2.34
9.5" B/W Paper	29.69	1.48
20" B/W Paper	11.24	.56
30" B/W Paper	.82	.04
40" B/W Paper	8.97	.45
Miscellaneous	18.43	.92

July 1977

PRODUCTION RATES

Printers

<u>Type</u>	<u>Printer</u>	<u>Production Rate Per Hour</u>
70mm B/W Film	Niagara	854.57' (Intermediate)
	ECP 70"A"	17.33 frames
	ECP 70"B"	27.34 frames
9.5" B/W Film	Colorado	27.66 frames
	K&E "A"	10.53 frames
	K&E "B"	51.22' (Intermediate)
	K&E "B"	16.11 frames
	Mark II "B"	11.78 frames
	Colorado	354.81' (Intermediate)
	Colorado	36.36 frames
	Mark II "C"	12.28 frames
9.5" Color Paper	3 X C	11.27 frames
	Durst "A"	18.81 frames
	Durst "B"	10.79 frames
	Durst "C"	10.10 frames
	Color Beseler	9.44 frames
	Mark III	5.89 frames
	Colorado	63.53 frames
	Modified Mark II	21.88 frames
20" Color Paper	Durst "A"	12.97 frames
	Durst "B"	4.80 frames
	Durst "C"	6.79 frames
30" Color Paper	Devere "A"	6.67 frames
40" Color Paper	Devere "A"	7.13 frames
9.5" Color Film	Mark IV	8.42 frames
	Colorado	179.82 frames
	Vacuum Frame "A"	33.41' (Intermediate)
	Vacuum Frame "B"	20.46' (Intermediate)
	Durst "B"	8.98 frames
	Modified Mark II	2.00 frames

PRODUCTION RATES

Printers (continued)

<u>Type</u>	<u>Printer</u>	<u>Production Rate Per Hour</u>
9.5" B/W Paper	Mark II "A"	49.41 frames
	EDC "X"	28.07 frames
	Mark II "C"	18.37 frames
	Mark II "B"	32.22 frames
	K&E "A"	46.33 frames
20" B/W Paper	Durst "C"	7.49 frames
	6X Paper	11.93 frames
	Vacuum Frame "A"	47.38 frames
30" B/W Paper	Durst "C"	9.72 frames
40" B/W Paper	Devere "B"	9.06 frames
	Devere "A"	2.00 frames
Miscellaneous	Durst "C"	3.64 frames
	Itek	17.82 frames
	Sickles	25.78 frames
	Devere "A"	2.53 frames
	Devere "B"	3.06 frames
	B/W Beseler	18.13 frames
	Vacuum Frame "B"	8.00 frames
	K&E Copy Camera	3.88 frames
	Color Beseler	20.67 frames
	Modified Mark II	8.00 frames
	Morse	3.20 frames
	Mark II "C"	1.00 frames
	Durst "B"	6.44 frames
	Vacuum Frame "C"	4.50 frames
3 X C	6.00 frames	
Vacuum Frame "D"	27.71 frames	

CHEMICAL USAGE CHART

JULY, 1977

<u>PROCESS</u>	<u>GALLONS MIXED</u>	<u>COST</u>
Eastman Kodak 385	178	\$ 344
Eastman Kodak B/W Microfilm	80	\$ 41
Eastman Kodak Versaflo	25	\$ 44
GAF B/W	500	\$ 159
Eastman Kodak R-5	2,750	\$1,977
Eastman Kodak EA-5	3,470	\$3,682
Eastman Kodak ME-4/ECO-3	554	\$ 456
Cibachrome	433	\$ 911
TOTAL	7,990	\$7,614

Bulk Chemicals Mixed and Expenditures - July 1977

CHEMICAL	% EFFICIENCY	GALLONS REGENERATED	CHEMICAL COST SAVINGS	ESTIMATED VALUE OF SILVER RECOVERED @ \$4.20/troy oz.	COMBINED DOLLAR SAVINGS
VIVIFIX	100%	475	\$ 118	\$ 104	\$ 222
VIVISTOP	86%	165	\$ 16	\$ 274	\$ 290
885 FIX	86%	125	\$ 102	\$ 279	\$ 381
EA-5 FIX	47%	420	\$ 405	\$ 252 *	\$ 657
R-5 BLEACH/FIX	100%	390	\$ 956	\$ 456	\$1,412
EA-5 BLEACH	87%	365	\$1,186	\$ --	\$1,186
TOTAL	77%	1,940	\$2,783	\$1,365	GRAND TOTAL \$4,148

COST SAVINGS CHART FOR MONTH OF JULY 1977.

* EA-5 Fix Silver Value per gallon is reduced by 50% from previous months due to increased replenishment rate.

NOTE: The estimated value of silver recovered is based on the predicted silver concentration of the chemical overflow and the average value of silver.

MONTHLY

DATE July, 1977

WASTEWATER ANALYSIS

Analysis # 07-00-77

<u>PARAMETER</u>	<u>AERATION</u>	<u>SETTLING</u>	<u>POLISHING</u>	<u>POLISHING B</u>	<u>LAKE</u>
Flow					
Temperature					
pH					
Ferrocyanide	<0.5	<0.5	<0.5	<0.5	<0.05
Total CN					
Free CN					
Fecal Coliform			20 org/100 ml	110 org/100 ml	1 org/100 ml
COD	100 ppm	77.5 ppm	53.80 ppm	53 ppm	40 ppm
BOD					
NH ₃ ⁵ (N)	11.9 ppm	11.5 ppm	7.8 ppm	0.6 ppm	0.06 ppm
NO ₃ (N)	2.7 ppm	0.5 ppm	1.0 ppm	<0.1 ppm	<0.1 ppm
Residual Chlorine					
Br ⁻ & I ⁻					6.8 ppm
Total Dissolved Solids					
Total Suspended Solids	32 ppm	23 ppm	26 ppm	22 ppm	2.5 ppm
Total Al					
Dissolved Al					
Total Ag		0.03	<0.005	<0.005	<<.005
Dissolved Ag					
Boron					
Total Cr					
Iron					
Total Zn					

Ronald D. Schultz

Analyst

Product Inspection

Inspection activity continued above normal with receipt of 364 Landsat rolls. A breakdown of imagery received for inspection during July was:

Landsat N-2's	364
Intermediate P-3's	131
Intermediate N-4's	8
Ames	12
JSC	14
Marshall	1
Microfilm	28
USAF	74
Reinspected Skylab	<u>22</u>

TOTAL 654

In addition, 271 standard P-5's and 16 HRFR P-1's were registered for color composites. This resulted in the inspection of 587 color composites.

Projects requiring inspector time during July consisted of:

Customer complaint investigation	7 hours
EDIES image sample book	8 hours
100 major cities update	8 hours
EDC dye fade test	20 hours

A second phase of the EDC dye fade test was initiated in early July. The procedure follows the same steps as the first part of the test except the 1811 processor stabilization step has been modified.

Quality Assurance has been actively participating in EDIPS design activities, and has completed the following tasks:

- Inspection work flow drafts submitted
- Manpower requirements submitted
- Procedure outlines completed
- Procedure tracking system established
- Facilities requirements submitted
- Equipment identified and ordered

STANDARD OPERATING PROCEDURES

	CO	CS	DP	QA	US	PH	DM	TOTAL
Total Previously Identified	4	12	3	14	26	38	15	112
Deleted This Month	0	0	0	0	0	0	0	0
New SOPs Identified This Month	0	0	0	0	0	0	0	0
Presently Identified	4	12	3	14	26	38	15	112
Total Previously Issued	4	9	2	12	22	25	10	84
Issued This Month	0	0	0	0	1	0	0	1
Total Issued	4	9	2	12	23	25	10	85
Pending	0	0	1	0	0	2	0	3
Total Requiring Action	0	3	1	2	3	13	5	27
Requiring Revision	0	0	0	0	3	2	8	13
Revised/Issued This Month *	0	0	0	0	0	1	2	3
Overdue 1st, 2nd, and Final Draft	0	0	0	2	1	5	0	8

EQUIPMENT OPERATING PROCEDURES

	CO	CS	DP	QA	US	PH	DM	TOTAL
Total Previously Identified	0	3	0	2	10	74	13	102
Deleted This Month	0	0	0	0	0	1	0	1
New EOPs Identified This Month	0	1	0	0	0	0	0	1
Presently Identified	0	3	0	2	10	74	13	102
Total Previously Issued	0	2	0	1	10	51	12	76
Issued This Month	0	0	0	0	0	0	0	0
Total Issued	0	2	0	1	10	51	12	76
Pending	0	0	0	0	0	0	0	0
Total Requiring Action	0	1	0	1	0	23	1	26
Requiring Revision	0	0	0	0	0	1	0	1
Revised/Issued This Month *	0	0	0	0	0	0	0	0
Overdue 1st, 2nd, and Final Draft	0	0	0	0	0	0	0	0

* Not included in total issued for month

1977 OPERATIONS QUALITY REPORT



Landsat Incoming Imagery Inspection

M O N T H	PACKAGE NUMBERS	TOTAL ROLLS					PERCENTAGE ROLLS		AVERAGE		INSPECTION COST (HOURS)					
		UNIQUE	UNIQUE + NON- UNIQUE	CUM. YR. TO DATE	REJECTED	REJECTED CUM. YR. TO DATE	REJECTED	REJECTED CUM. YR. TO DATE	ROLLS PER PKG. UNIQUE	FRAMES PER ROLL UNIQUE	TOTAL NO.		TOTAL HOURS			
											FRAMES UNIQUE	FRAMES PER MIN. UNIQUE	UNIQUE	NON- UNIQUE (3 RLS.)	PER MONTH	CUM. YEAR TO DATE
J	875-891 ¹⁷	73	292	292	13	13	4%	4%	4.24	223	16,293	3.91	69.3	49.5	118.8	118.8
F	892-907 ¹⁶	49	196	488	20	33	10%	7%	3.06	239	11,698	3.78	51.5	30.7	82.2	201.0
M	908-927 ²⁰	88	352	840	12	45	3%	5%	4.40	176	15,493	4.32	59.4	39.7	99.1	300.1
A	928-941 ¹⁴	55	220	1,060	8	53	4%	5%	3.93	237	13,026	3.31	65.6	27.3	92.9	393.0
M	942-958 ¹⁷	83	332	1,392	8	61	3%	4%	4.88	177	14,673	3.87	63.2	28.8	92.0	485.0
J	959-977 ¹⁹	153	612	2,004	36	97	5%	4%	8.05	175	26,727	4.62	96.3	73.3	169.6	654.6
J	978-993 ¹⁷	121	484	2,488	12	109	2%	4%	7.12	155	18,723	4.84	64.4	32.2	96.6	751.2
A																
S																
O																
N																
D																
D	TOTALS															

COMMENTS:

1977 OPERATIONS QUALITY REPORT



Incoming Aircraft Imagery Inspection U.S. Geological Survey (USGS)

M O N T H	TOTAL ROLLS				PERCENTAGE ROLLS REJECTED		TOTAL NUMBER FRAMES INSPECTED PER MONTH	TOTAL ROLLS REJECTED BY DEFECT														INSPECTION COST (HOURS)			
	INSPECTED		REJECTED		PER MONTH	CUM. YR. TO DATE		DENSITY	COLOR BALANCE	RESOLUTION	DENSITY UNIFORMITY	CINCH MARKS	KINKS AND ABRASIONS	PRINTED BACKWARDS	OFF TRACK	SLIPPAGE	CHEMICAL SPOTS	FILM DEFECT	PRINTED DIRT	SCRATCHES (BASE)	SCRATCHES (EMULSION)	SCRATCHES (NON-SPECIFIC)	MISCELLANEOUS	TOTAL HOURS	
	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YR. TO DATE																				PER MONTH	CUM. YR. TO DATE
J	0	0	0	0	0	0	0																	0	0
F	0	0	0	0	0	0	0																	0	0
M	0	0	0	0	0	0	0																	0	0
A	0	0	0	0	0	0	0																	0	0
M	0	0	0	0	0	0	0																	0	0
J	0	0	0	0	0	0	0																	0	0
J	0	0	0	0	0	0	0																	0	0
A																									
S																									
O																									
N																									
D																									
TOTALS																									

COMMENTS:

1977 OPERATIONS QUALITY REPORT



Incoming Aircraft Imagery Inspection Johnson Manned Spacecraft Center (JSC)

M O N T H	TOTAL ROLLS				PERCENTAGE ROLLS REJECTED		TOTAL NUMBER FRAMES INSPECTED PER MONTH	TOTAL ROLLS REJECTED BY DEFECT													INSPECTION COST (HOURS)				
	INSPECTED		REJECTED		PER MONTH	CUM. YR. TO DATE		DENSITY	COLOR BALANCE	RESOLUTION	DENSITY UNIFORMITY	CINCH MARKS	KINKS AND ABRASIONS	PRINTED BACKWARDS	OFF TRACK	SLIPPAGE	CHEMICAL SPOTS	FILM DEFECT	PRINTED DIRT	SCRATCHES (BASE)	SCRATCHES (EMULSION)	SCRATCHES (NON-SPECIFIC)	MISCELLANEOUS	TOTAL HOURS	
	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YR. TO DATE																				PER MONTH	CUM. YR. TO DATE
J	76	76	0	0	0	0	11,606																	49.4	49.4
F	80	156	0	0	0	0	10,849																	44.6	94.0
M	29	185	0	0	0	0	4,726																	21.4	115.4
A	54	239	0	0	0	0	7,560																	38.0	153.4
M	16	255	0	0	0	0	2,816																	11.5	164.9
J	17	272	0	0	0	0	2,707																	11.0	175.9
J	14	286	0	0	0	0	1,807																	4.8	180.7
A																									
S																									
O																									
N																									
D																									
TOTALS																									

COMMENTS:

1977 OPERATIONS QUALITY REPORT



Incoming Aircraft Imagery Inspection Ames Research Center (ARC)

M O N T H	TOTAL ROLLS				PERCENTAGE ROLLS REJECTED		TOTAL NUMBER FRAMES INSPECTED PER MONTH	TOTAL ROLLS REJECTED BY DEFECT													INSPECTION COST (HOURS)				
	INSPECTED		REJECTED		PER MONTH	CUM. YR. TO DATE		DENSITY	COLOR BALANCE	RESOLUTION	DENSITY UNIFORMITY	CINCH MARKS	KINKS AND ABRASIONS	PRINTED BACKWARDS	OFF TRACK	SLIPPAGE	CHEMICAL SPOTS	FILM DEFECT	PRINTED DIRT	SCRATCHES (BASE)	SCRATCHES (EMULSION)	SCRATCHES (NON-SPECIFIC)	MISCELLANEOUS	TOTAL HOURS	
	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YR. TO DATE																				PER MONTH	CUM. YEAR TO DATE
J	8	8	0	0	0	0	1,659																	3.9	3.9
F	1	9	0	0	0	0	216																	1.0	4.9
M	16	25	0	0	0	0	2,723																	10.8	15.7
A	01	26	0	0	0	0	45																	0.4	16.1
M	16	42	0	0	0	0	3,055																	6.8	22.9
J	4	46	0	0	0	0	549																	2.5	25.4
J	12	58	0	0	0	0	1,543																	6.2	31.6
A																									
S																									
O																									
N																									
D																									
	TOTALS																								

COMMENTS:

FY77 OPERATIONS QUALITY REPORT



Incoming Aircraft Imagery Inspection

BUREAU OF LAND MANAGEMENT (BLM)

DEFENSE MAPPING AGENCY (DMA)

M O N T H	TOTAL ROLLS		FRAMES		INSPECTION COST (HOURS)	
	INSPECTED		TOTAL NUMBER		TOTAL HOURS	
	PER MONTH	CUM. YR. TO DATE	INSPECTED PER MONTH	PER MIN.	PER MONTH	CUM. YEAR TO DATE
J	0	0	0	0	0	0
F	0	0	0	0	0	0
M	0	0	0	0	0	0
A	0	0	0	0	0	0
M	0	0	0	0	0	0
J	0	0	0	0	0	0
J	0	0	0	0	0	0
A						
S						
O						
N						
D						
TOTALS						

COMMENTS:

M O N T H	TOTAL ROLLS		FRAMES		INSPECTION COST (HOURS)	
	INSPECTED		TOTAL NUMBER		TOTAL HOURS	
	PER MONTH	CUM. YR. TO DATE	INSPECTED PER MONTH	PER MIN.	PER MONTH	CUM. YEAR TO DATE
J	0	0	0	0	0	0
F	0	0	0	0	0	0
M	0	0	0	0	0	0
A	0	0	0	0	0	0
M	0	0	0	0	0	0
J	0	0	0	0	0	0
J	52	52	11,811	4.5	43.3	43.3
A						
S						
O						
N						
D						
TOTALS						

COMMENTS:

1977 OPERATIONS QUALITY REPORT



Incoming Aircraft Imagery Inspection Agencies Other Than JSC, ARC, and USGS

M O N T H	TOTAL ROLLS				PERCENTAGE ROLLS REJECTED		TOTAL NUMBER FRAMES INSPECTED PER MONTH	TOTAL ROLLS REJECTED BY DEFECT														INSPECTION COST (HOURS)			
	INSPECTED		REJECTED		PER MONTH	CUM. YR. TO DATE		DENSITY	COLOR BALANCE	RESOLUTION	DENSITY UNIFORMITY	CINCH MARKS	KINKS AND ABRASIONS	PRINTED BACKWARDS	OFF TRACK	SLIPPAGE	CHEMICAL SPOTS	FILM DEFECT	PRINTED DIRT	SCRATCHES (BASE)	SCRATCHES (EMULSION)	SCRATCHES (NON-SPECIFIC)	MISCELLANEOUS	TOTAL HOURS	
	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YR. TO DATE																				PER MONTH	CUM. YR. TO DATE
J	17	17	0	0	0	0	2,254																	12.3	12.3
F	20	37	0	0	0	0	3,955																	18.5	30.8
M	14	51	0	0	0	0	2,665																	12.0	42.8
A	9	60	0	0	0	0	1,632																	8.3	51.1
M	0	60	0	0	0	0	0																	0	51.1
J	5	65	0	0	0	0	1,142																	3.8	54.9
J	1	66	0	0	0	0	82																	0.5	55.4
A																									
S																									
O																									
N																									
D																									
TOTALS																									

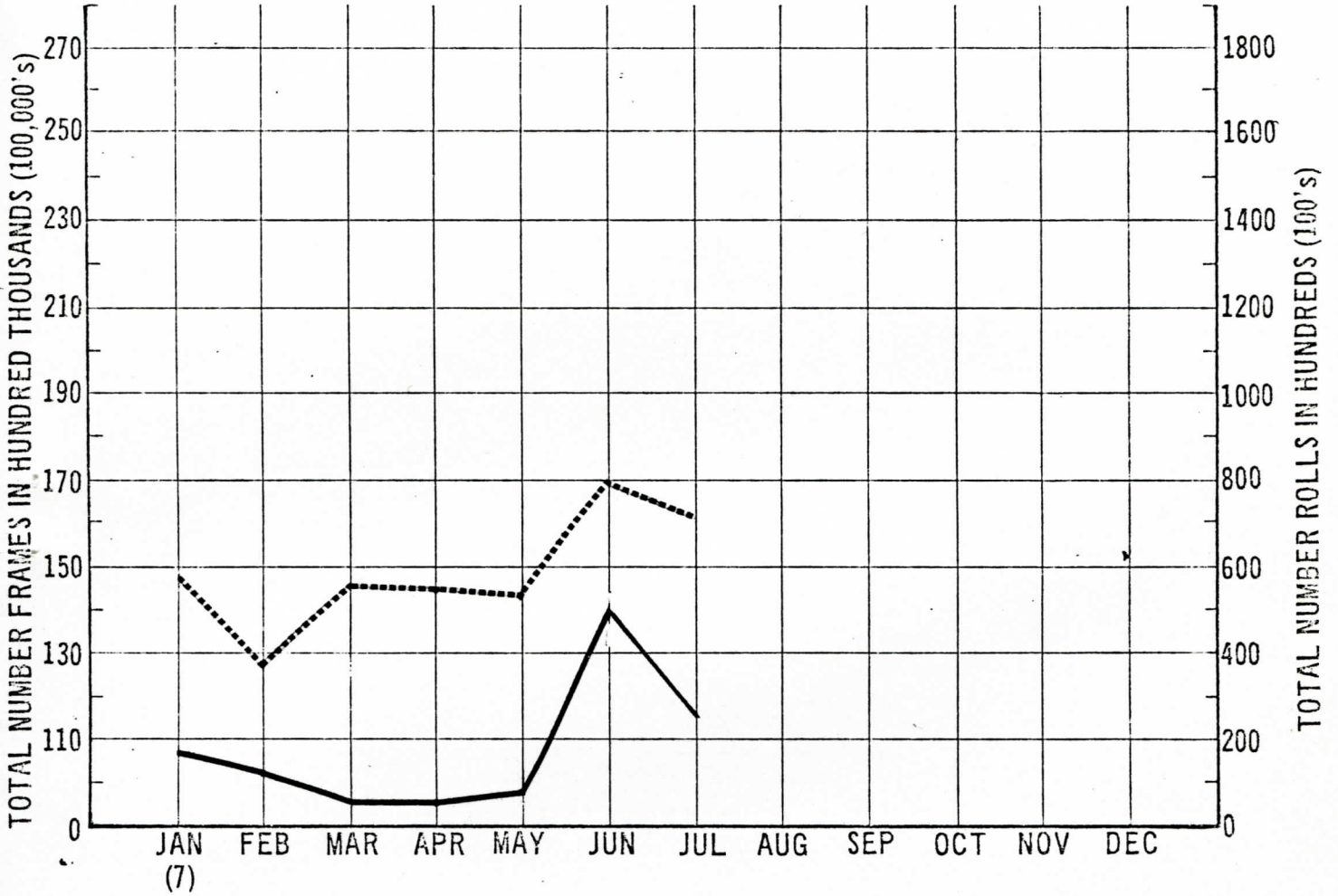
COMMENTS:

INCOMING IMAGERY INSPECTION

LEGEND:

- NO. FRAMES
- - - NO. ROLLS

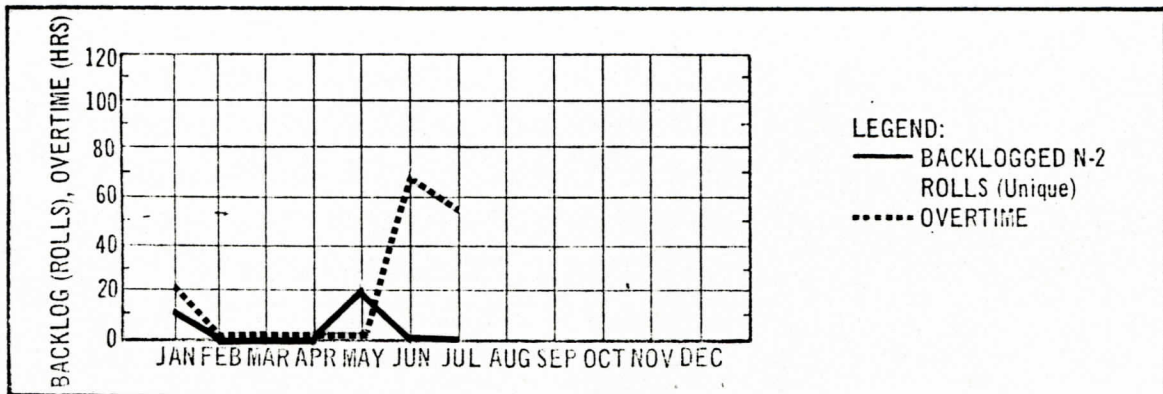
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(7)

*Number in parenthesis are total inspectors.

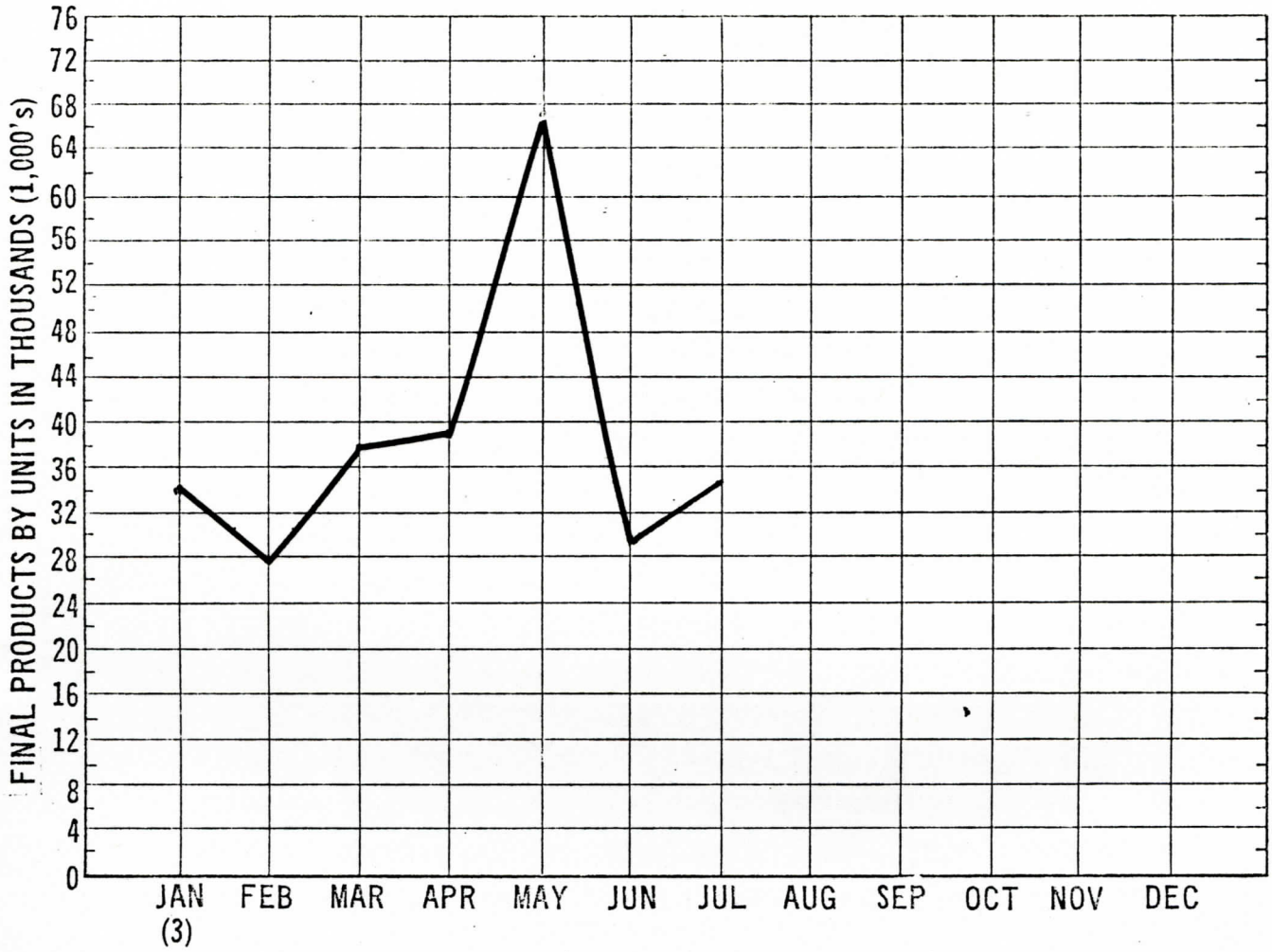
*Supervisor, Product Inspection not included in these times



LEGEND:

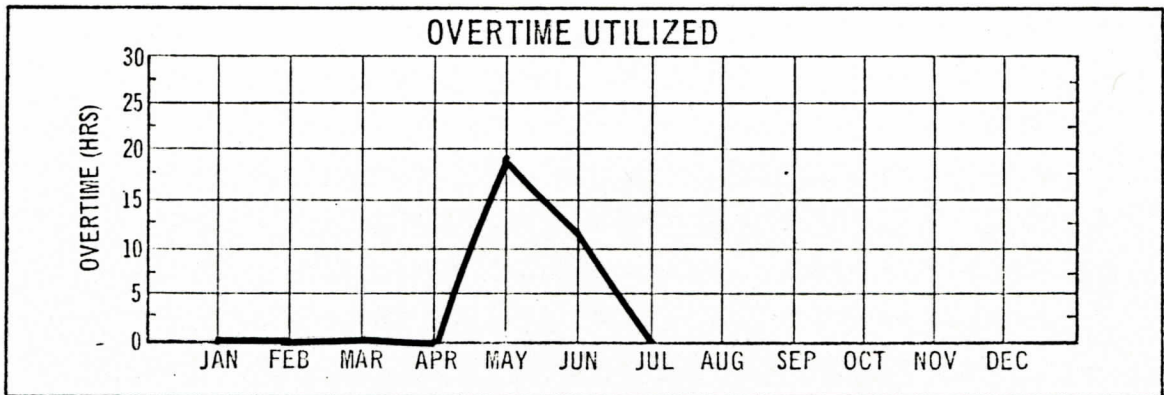
- BACKLOGGED N-2 ROLLS (Unique)
- - - OVERTIME

FINAL PRODUCT INSPECTION



*Number in parenthesis are total inspectors

*Supervisor, Product Inspection not included in these times



1977 OPERATIONS QUALITY REPORT



Landsat Intermediate P-3 Imagery Inspection

M O N T H	TOTAL ROLLS				PERCENTAGE ROLLS REJECTED		ARCHIVALS REMADE FOR		TOTAL ROLLS REJECTED BY DEFECT													INSPECTION COST (HOURS)					
	INSPECTED		REJECTED		PER MONTH	CUM. YR. TO DATE	SCRAT.	OTHER	D _{MAX} - HIGH/LOW	D _{MIN} - HIGH/LOW	RESOLUTION	UNIFORMITY	CINCH MARKS	KINKS AND ABRASIONS	PRINTED BACKWARDS	OFF TRACK	SLIPPAGE	CHEMICAL SPOTS	FILM DEFECT	PRINTED DIRT	SCRATCHES (BASE)	SCRATCHES (EMULSION)	SCRATCHES NON-SPECIFIC	MISCELLANEOUS	TOTAL ROLLS		
	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YR. TO DATE																					PER MONTH	CUM. YR. TO DATE	PER MONTH
	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YEAR TO DATE																	
J	116	116	4	4	3%	3%	2	0			2													2	24.4	24.4	
F	72	188	8	12	11%	6%	7	0	5			1			1									1	11.6	36.0	
M	113	301	15	27	13%	9%	11	0	2	6					4		1							2	21.2	57.2	
A	99	400	8	35	8%	9%	40	0		3	2								1					2	24.5	81.7	
M	144	544	25	60	17%	11%	41	0	8	9	2				1		1							4	28.4	110.1	
J	158	702	37	97	23%	14%	2	0	26	6	1								1					3	28.8	138.9	
J	131	833	15	112	12%	13%	15	0	3								2			1				9	30.6	169.5	
A																											
S																											
O																											
N																											
D																											
TOTALS																											

COMMENTS:

1977 OPERATIONS QUALITY REPORT



Landsat Intermediate N-4 Imagery Inspection

M O N T H	TOTAL ROLLS				PERCENTAGE ROLLS REJECTED		ARCHIVALS REMADE FOR		TOTAL ROLLS REJECTED BY DEFECT													INSPECTION COST (HOURS)							
	INSPECTED		REJECTED		PER MONTH	CUM. YR. TO DATE	SCRAT.	OTHER	D M A X - H I G H / L O W	D M I N - H I G H / L O W	R E S O L U T I O N	U N I F O R M I T Y	C I N C H M A R K S	K I N K S A N D A B R A S I O N S	P R I N T E D B A C K W A R D S	O F F T R A C K	S L I P P A G E	C H E M I C A L S P O T S	F I L M D E F E C T	P R I N T E D D I R T	S C R A T C H E S (B A S E)	S C R A T C H E S (E M U L S I O N)	S C R A T C H E S - N O N - S P E C I F I C	M I S C E L L A N E O U S	TOTAL ROLLS				
	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YR. TO DATE																					PER MONTH	CUM. YEAR TO DATE	PER MONTH	CUM. YEAR TO DATE	
	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YR. TO DATE	PER MONTH	CUM. YEAR TO DATE	PER MONTH	CUM. YEAR TO DATE																	
J	11	11	1	1	9%	9%	8	0		1																	2.7	2.7	
F	16	27	6	7	38%	26%	8	0		4															2	2.6	5.3		
M	10	37	1	8	10%	22%	8	0		1																	1.5	6.8	
A	67	104	26	34	39%	33%	27	0	3	23																	16.4	23.2	
M	35	139	19	53	54%	38%	7	0	7	10															2	8.1	31.3		
J	10	149	0	53	0%	35%	3	0																			3.6	34.9	
J	8	157	1	54	13%	34%	8	0																	1	2.0	36.9		
A																													
S																													
O																													
N																													
D																													
	TOTALS																												

COMMENTS:

1977 OPERATIONS QUALITY REPORT



Customer Quality Complaints

M O N T H	TOTAL RECEIVED FOR MONTH	RETURNED TO CUSTOMER RELATIONS	VALID COMPLAINTS FOR MONTH	INVALID COMPLAINTS FOR MONTH	PERCENTAGE VALID FOR MONTH	PERCENTAGE INVALID FOR MONTH	AVERAGE CUM. YR. TO DATE	TOTAL RECEIVED CUM. YR. TO DATE	COMPLAINT EVALUATION COST (HRS)		
									AVERAGE HRS. PER COMPLAINT	TOTAL HRS. FOR MONTH	TOTAL HRS. CUM YR. TO DATE
J	18	10	8	0	44	0	18.0	18	0.33	6.0	6.0
F	13	3	7	3	54	23	15.5	31	0.34	4.5	10.5
M	9	3	5	1	56	33	13.3	40	0.30	3.0	13.5
A	26	14	10	2	38	8	16.5	66	0.35	9.0	22.5
M	17	3	14	0	82	18	16.6	83	0.30	5.0	27.5
J	20	6	12	2	60	30	17.2	103	0.30	6.0	33.5
J	22	11	10	1	45	5	17.9	125	0.32	7.1	40.6
A											
S											
O											
N											
D											
TOTALS											

COMMENTS:

JULY 1977

QUALITY LETTERS SENT TO CUSTOMERS

Image Type versus Defects

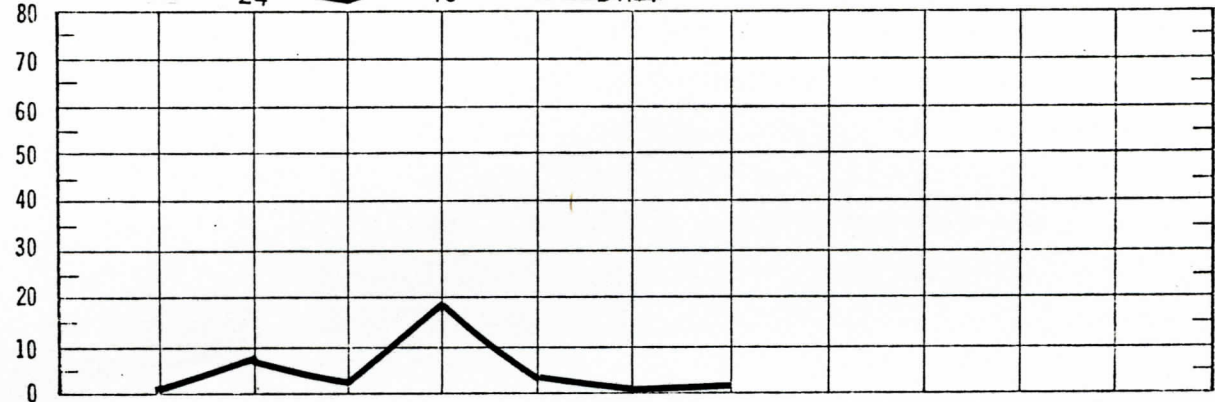
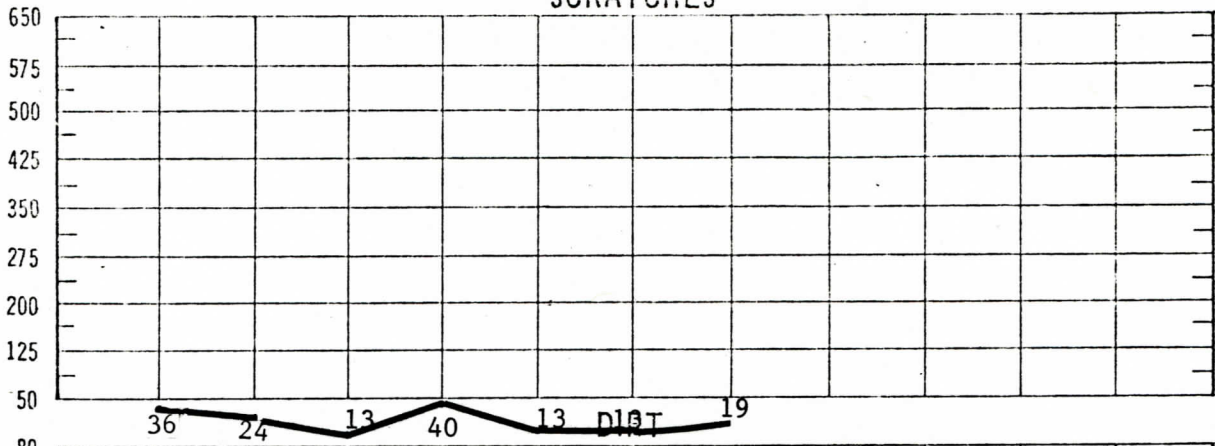
	<u>LANDSAT</u>	<u>SKYLAB</u>	<u>NASA JSC/Ames</u>	<u>USGS</u>	<u>Other Agencies</u>	<u>Total by Defect</u>
Scratches	12 (20)	1 (2)	0	6 (10)	0	19 (32)
Dirt	1 (2)	0	0	0	0	1 (2)
Other	19 (31)	0	3 (5)	11 (18)	7 (12)	40 (66)
<hr/>						
Total by Image Type	32 (53)	1 (2)	3 (5)	17 (28)	7 (12)	60 (100)

NOTE: Numbers in parenthesis are percentages.

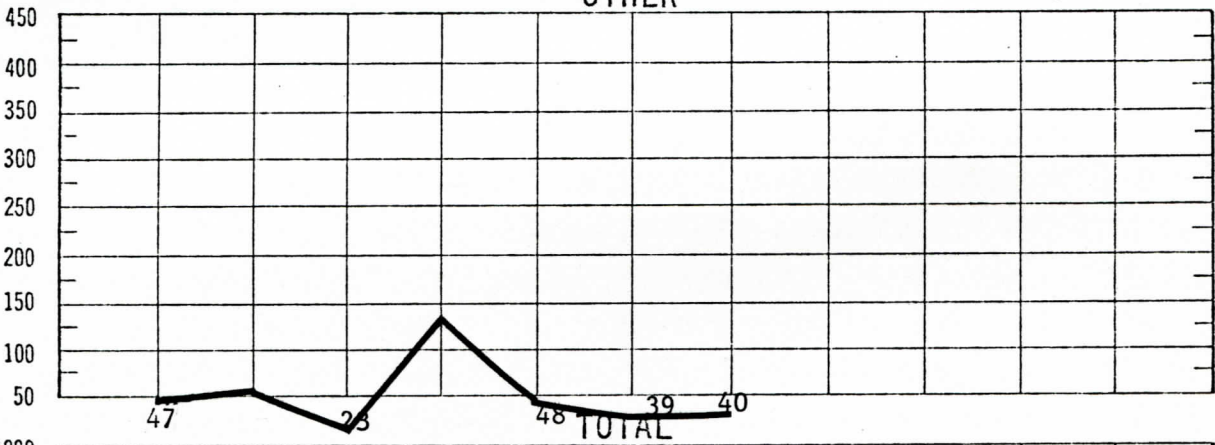
* This category (other) covers a variety of defects; labeling, static, fog, vignetting, border defects, bit slips, torn images, etc.

QUALITY LETTERS 1977

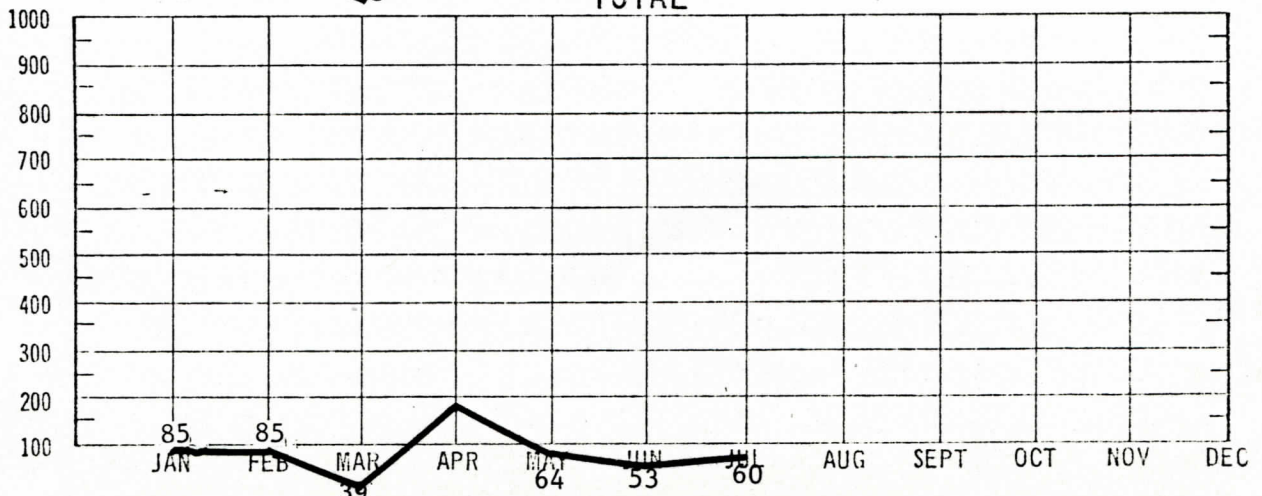
SCRATCHES



OTHER



TOTAL



1977 EXECUTIVE QUALITY REPORT



Product Inspection Hours Report - Incoming Inspection System

M O N T H	1) TOTAL INSPECTION HOURS EXPENDED BY AGENCY/IMAGERY TYPE									2) INSPECTION HOURS EXPENDED (OTHER DUTIES)			
	LANDSAT N-2	LANDSAT P-3	LANDSAT N-4	JSC	AMES	USGS	OTHER AIRCRAFT	MICRO-FILM	TOTAL	SPECIAL PROJECTS	MISC.	MISC.	TOTAL
J	118.8	24.4	2.7	49.9	3.9	0	12.3	15.7	227.7	52.8	162.00 ²	41.25 ¹	256.05
F	82.2	11.6	2.6	44.6	1.0	0	18.5	4.4	164.9	74.0	162.00 ²	41.25 ¹	277.25
M	99.1	21.2	1.5	21.4	10.8	0	12.0	11.0	177.0	35.0	162.00 ²	41.25 ¹	238.25
A	92.6	24.5	16.4	38.0	0.4	0	8.3	2.0	182.2	47.0	162.00 ²	41.25 ¹	250.25
M	92.0	28.4	8.1	11.5	6.8	0	0	5.8	152.6	0	162.00 ²	41.25 ¹	203.25
J	169.6	28.8	3.6	11.0	2.5	0	3.8	0	219.3	80.0	162.00 ²	41.25 ¹	283.25
J	96.6	30.6	2.0	4.8	6.2	0	43.8	6.3	190.3	15.0	162.00 ²	41.25 ¹	218.25
A													
S													
O													
N													
D													
	TOTALS												

1. Becky A. Holt's 25% secretarial duties, considered a constant from month to month.
- COMMENTS:** 2. The miscellaneous duties supporting incoming inspection such as: a) logging in new packages, b) time between rolls, c) checking final product scratches, d) checking inputs, e) data base updates, f) canning, cutting, shelving, and tracking Landsat imagery, and g) checking red dots for scheduling considered a constant from month to month.

1977 EXECUTIVE QUALITY REPORT



Product Inspection Hours Report - Incoming Inspection System

M O N T H	3) MISCELLANEOUS DEDUCTIBLE HOURS									4) NORMAL PRODUCTIVE HOURS AVAILABLE 7.5 X # DAYS	# DAYS	5) TOTAL NORMAL PRODUCTIVE HOURS AVAILABLE = 4 X INSP.	# INSPEC- TORS
	VACATION	PERSONAL BUSINESS	HOLIDAYS	ADMINIS- TRATIVE	SICK	MEETINGS	TRAVEL/ TRAINING	MISC.	TOTAL				
J	8	28	0	0	24	7.5	120	0	187.5	157.5	21	1102.5	7
F	24	4	56	0	8	8.0	140	0	240.0	150.0	20	1050.0	7
M	80	12	0	84	28	14.0	344	101	663.0	172.5	23	1207.5	7
A	8	8	0	0	40	11.0	240	10.5	317.5	157.5	21	1023.8	6.5
M	48	0	0	0	34	3.0	160	21.0	266.0	165.0	22	990.0	6.0
J	132	0	48	0	16	6.5	40	21.0	263.5	165.0	22	990.0	6
J	72	0	0	0	37	6.0	0	58.0	173.0	157.5	21	945.0	6
A													
S													
O													
N													
D													
	TOTALS												

COMMENTS:



Product Inspection Hours Report - Incoming Inspection System

M O N T H	6 OVERTIME EXPENDED	7 ADDITIONAL HELP PART TIME INSP.	8 TOTAL PRODUCTIVE HOURS AVAILABLE ADD 5-6-7	9 ACTUAL PRODUCTIVE HOURS ADD 1-2-3	10 SUBTRACT #'s 1, 2, & 3 FROM #8	11 SUBTRACT EFFICIENCY RATE (80%) .2 X # 8	12 HOURS UNACCOU- NTED FOR SUBTRACT FROM #10
J	0	0	1102.5	671.25	431.25	220.5	- 210.75
F	0	0	1050.0	682.15	367.85	210.0	- 157.85
M	0	0	1207.5	1078.25	129.25	241.5	+ 112.25
A	0	0	1023.8	749.95	273.85	204.8	- 69.05
M	0	0	990.0	621.85	368.15	198.0	- 170.15
J	75	0	1065.0	766.05	298.95	213.0	- 85.95
J	55	0	1000.0	581.55	418.45	200.0	- 218.45
A							
S							
O							
N							
D							
TOTALS							

COMMENTS:

1977 EXECUTIVE QUALITY REPORT



Product Inspection Hours Report - Final Product Inspection System

M O N T H	INSPECTION HOURS BY PRODUCT SIZE/TYPE												
	70mm	9" B & W FILM	9" COLOR PAPER	20" COLOR PAPER	30" COLOR PAPER	40" COLOR PAPER	9" COLOR FILM	9" B & W PAPER	20" B & W PAPER	30" B & W PAPER	40" B & W PAPER	OTHER	TOTAL
J	72.3	20.3	10.2	8.0	1.0	6.9	32.7	26.2	11.5	1.9	4.0	21.4	216.4
F	30.2	28.8	13.0	4.1	0.8	6.8	14.9	28.7	9.1	1.7	6.1	9.8	154.0
M	43.5	31.3	23.0	4.1	0.4	8.8	18.9	39.7	9.5	1.1	7.7	19.5	207.5
A	43.5	27.6	24.4	6.8	1.3	8.6	25.9	48.6	13.3	1.1	4.1	68.5	273.7
M	47.8	24.3	19.5	5.8	0.3	8.8	19.6	71.7	12.1	1.5	7.0	67.0	285.4
J	66.6	24.5	19.2	7.4	0.4	13.8	77.8	36.4	14.5	1.2	10.2	35.6	307.6
J	34.8	22.4	9.8	8.5	0.3	10.1	46.9	29.7	11.2	0.8	9.0	18.4	201.9
A													
S													
O													
N													
D													
TOTAL													
<p><u>COMMENTS:</u></p>													

1977 EXECUTIVE QUALITY REPORT



Product Inspection Hours Report - Final Product Inspection System

M O N T H	2) INSPECTION HOURS EXPENDED (OTHER DUTIES)				3) MISCELLANEOUS DEDUCTIBLE HOURS								
	CUSTOMER COMPLAINTS	SPECIAL PROJECTS	MISC.	TOTAL	VACATION	PERSONAL BUSINESS	HOLIDAYS	ADMINIS-TRATIVE	SICK	MEETINGS	TRAVEL/ TRAINING	MISC.	TOTAL
J	6	41	25	72	8	0	0	0	8	13.5	5	0	34.5
F	4.5	96.5	30	131.0	24	4	24	0	8	13.5	20	0	93.5
M	3.0	39.0	28.0	70.0	24	0	0	32	12	22.0	50	0	140.0
A	9.0	49.0	41.0	99.0	24	0	0	0	4	20.0	8	0	56.0
M	5.0	106.0	26.0	137.0	24	0	0	0	16	33.0	0	0	73.0
J	6.0	74.5	19.0	99.5	56	0	24	0	4	11.5	0	0	95.5
J	7.1	0	25.0	32.1	56	0	0	0	20	10.5	0	0	86.5
A													
S													
O													
N													
D													
TOTAL													

COMMENTS:

1977 EXECUTIVE QUALITY REPORT



Product Inspection Hours Report - Final Product Inspection System

M O N T H	4 NORMAL PRODUCTIVE HOURS AVAILABLE 7.5 X #DAYS	#DAYS	5 TOTAL NORMAL PRODUCTIVE HOURS AVAILABLE #4 X #INSP.	#INSPECTORS	6 OVERTIME EXPENDED	7 ADDITIONAL HELP PARTTIME HELP ADD OR SUBT.	8 TOTAL PRODUCTIVE HOURS AVAILABLE ADD 5-6-7	9 ACTUAL PRODUCTIVE HOURS ADD 1-2-3	10 SUBTRACT #S 1, 2, & 3 FROM #8	11 SUBTRACT EFFICIENCY RATE (80%) .2 X #8	12 HOURS UNACCOU- NTED FOR SUBTRACT FROM #10
J	157.5	21	472.5	3	20	0	492.5	322.9	169.6	98.5	- 71.1
F	150.0	20	450.0	3	0	0	450.0	378.5	71.5	90.0	+ 18.5
M	172.5	23	517.5	3	0	0	517.5	417.5	100.0	103.5	+ 3.5
A	157.5	21	472.5	3	0	0	472.5	428.7	43.8	94.5	+ 50.7
M	165.0	22	495.0	3	19.5	0	514.5	495.4	19.1	102.9	+ 83.8
J	165.0	22	495.0	3	12.0	0	507.0	502.6	4.4	101.4	+ 97.0
J	157.5	21	472.5	3	0	0	472.5	320.5	152.0	94.5	- 57.5
A											
S											
O											
N											
D											
TOTAL											

COMMENTS: