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Type I Progress Report for the Period 14 December 1973 to 14 February 1974 for ERTS-1 Data User Investigation of the Use of ERTS Imagery in Reservoir Management and Operation - Proposal Number MMC 89

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The tenth 2-month period of our participation in the ERTS-1 program has been featured by:

a. Continued collection and entry of all DCS data into our computer, and continued analysis of this data to provide system reliability and data availability statistics.

b. Publication of the preliminary Proceedings of the ERTS-1 Data Collection Workshop held at Wallops Station, Virginia on 30-31 May 1973.

c. Continued work on the evaluation of the results from our Corps-wide questionnaire relating to the present status of and future needs for automated data collection facilities. A complete discussion of this evaluation will be published in our final study report (the tabulated statistics may be found in Appendix A of our January 1974, Type II Report).

d. Continued analysis of pertinent data and ERTS imagery from the late June to early July 1973 New England flood (see July 1973, Type II Report for further details) to support our study of the potential usefulness of satellite imagery and data collection for NED water related purposes both during and after a significant flood event.

e. Progress toward preparation of a snowmelt analysis report (see January 1974, Type II Report for further details) which will be included in our final study report.

f. Continued progress in the development of a man/computer interactive system for ERTS image processing.

E74-10453) ERTS-1 DATA USER
INVESTIGATION OF THE USE OF ERTS IMAGERY
IN RESERVOIR MANAGEMENT AND OPERATION
Progress Report, 14 (Corps of Engineers,
Waltham, Mass.) 3 p HC \$4.00 CACL 08H

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g. Progress toward preparation of our final study report detailing all our activities in the development of methods for analyzing ERTS imagery products to aid Corps watershed management functions.

A location listing of our operating DCP's is inclosed. Note changes from the list submitted with our last report. The water quality setup at Winchester, New Hampshire has been removed due to the inability of the monitoring apparatus to handle the heavy solid pollutant load. Relocation of the equipment will be made this spring. DCS data relay from NASA via our real time teletype link continues to be timely. Punched cards and computer printouts of our data also continue to arrive in a timely manner by mail.

The ERTS-1 DCS hardware is still performing well. We are continuing to record and analyze DCP, sensor and battery performance and reliability. A complete summary of our statistics will be presented in our final report. In early February 1974, NED met at Greenbelt, Maryland with personnel from NASA, Goddard Space Flight Center and NASA, Wallops Station to discuss the feasibility of providing a demonstration direct downlink at NED for the collection of ERTS data. Negotiations are continuing between NASA and Corps of Engineers Washington Headquarters for an early FY 75 agreement.

We continue to be in contact with other ERTS investigators, and especially personnel from NASA, the U.S. Department of the Interior, and the National Oceanic and Atmospheric Administration. In early January, we demonstrated our ERTS Data Collection System for a representative of the Corps Lower Mississippi Valley Division to assist them in determining the best procedure for satisfying their own automated data collection needs.

Data requests have not been submitted to NASA since our last Type I Report.

1 Incl
As stated


SAUL COOPER
Principal Investigator

ERTS-1 - DCP INFORMATION SHEET
 ARMY CORPS OF ENGINEERS, NEW ENGLAND DIVISION

14 FEB 1974

ID NO.	DCP NO.	TYPE*	STATION NAME	LAT	LONG	IN-STALLED
1	6233	S	ST. JOHN RIVER AT FORT KENT, MAINE	47 15	68 35	091972
8	6220	S	ST. JOHN RIVER AT NINEMILE BR., MAINE	46 42	69 43	073073
2	6355	S	PENOBSCOT RIVER AT WEST-ENFIELD, MAINE	45 14	68 39	092072
3	6271	S	CARABASSETT RIVER AT NORTH ANSON, MAINE	44 52	69 57	100472
5	6171	S	SACO RIVER AT CORNISH, MAINE	43 48	70 47	112872
6	6273	S	PEMIGEWASSET RIVER AT PLYMOUTH, N.H.	43 45	71 41	112272
7	6335	S	MERRIMACK RIVER AT GOFFS FALLS, N.H.	42 57	71 28	032773
9	6304	S	CHARLES R. AT CHARLES R. VILLAGE, MASS.	42 15	71 15	071772
10	6207	S	TOWN BROOK AT QUINCY, MASS.	42 15	71 00	090872
41	6142	S	NORTH NASHUA RIVER AT FITCHBURG, MASS.	42 34	71 47	110672
11	6010	S	PAWTUXET RIVER AT CRANSTON, R.I.	41 45	71 27	083072
13	6106	S	BRANCH RIVER AT FORESTDALE, R.I.	42 00	71 34	100173
12	6127	S	CONNECTICUT RIVER AT HARTFORD, CONN.	41 46	72 40	083072
20	6021	P	STINSON MOUNTAIN, N.H.	43 50	71 47	032273
21	6345	P	SOUTH MOUNTAIN, N.H.	42 59	71 35	120672
22	6206	P	FRANKLIN FALLS DAM, N.H.	43 28	71 40	051773
23	6201	P	BLACKWATER DAM, N.H.	43 19	71 44	100273
24	6012	P	MACDOWELL DAM, N.H.	42 54	71 59	042473
26	6071	P	WACHUSETT MOUNTAIN, MASS.	42 29	71 53	100473
25		P	MANSFIELD HOLLOW DAM, CONNECTICUT	41 46	72 11	
30	6101	C	STAMFORD BARRIER, STAMFORD, CONNECTICUT	41 02	73 32	011073
42	6272	Q	WESTFIELD R. AT WEST SPRINGFIELD, MASS.	42 06	72 38	092872
43	6242	Q	CHICOPEE RIVER AT CHICOPEE, MASS.	42 09	72 35	121472
50	6147	T	NED HEADQUARTERS, WALTHAM, MASS.	42 24	71 13	071772
51	6325	T	COLD REGIONS LAB AT HANOVER, N.H.		VARIABLE	042373
52	6216	T	COLD REGIONS LAB AT HANOVER, N.H.		VARIABLE	120572
54	6063	T	U.S. GEOLOGICAL SURVEY, BOSTON, MASS.		VARIABLE	032073

* S-RIVER-STAGE
 P-PRECIPIATION
 C-COASTAL(WIND DIRECTION,VELOCITY AND TIDE)
 Q-WATER QUALITY(TEMPERATURE,CONDUCTIVITY,PH AND DISSOLVED OXYGEN)
 T-TEST SET(SENSORS VARIABLE)