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Department of Geography

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TO: Director of Applications, GSFC) Attention: Mr. John H. Boeckel) Assistant Director for Operations) Code 900) (2 copies))

ERTS Technical Officer, Code 902) Attention: Mr. Edmund F. Szajna)

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ERTS Contracting Officer, Code 289) Attention: Mr. James Higgins)

NASA Scientific & Technical Information Facility Attention: Earth Resources P.O. Box 33 College Park, Maryland 20740

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SUBJECT: Type I Progress Report No. 9 on Contract No. NAS 5-21749 (Land Use in Northern Megalopolis) (GSFC ID No. U-235)

Dartmouth College HANOVER · NEW HAMPSHIRE · 03755

NOTE: The last Type I (bi-monthly) Progress apport (N. 8, was dated 10 September 1973. Since that time a 'Final Report" was forwarded to GSFC in multiple copies on 18 lecember 1973 under the title:

> Investigation of Land Use of Northern Megalopolis Using ERTS-1 Imagery, by Simpson, Lindgren and Golds.ein, Dartmouth College Project in Remote Sensing, Hanover, New Hampshire, dated August 1973 and covering the period June 1972 through June 1973. 56 pages.

On 4 February 1974 an extension to NAS 5-21749 was signed, to carry the contract to 15 June 1974. This Ty_{140} I Report No. 9 is the first bi-monthly report under the most extension, and covers the period February-March 1974.

(E74-10426)LAND USE IN NORTHERNN74-20954MEGALOPOLISBimonthly Progress Report,Feb. - Mar. 1974 (Dartmouth Coll.)2 pHC \$4.00CSCL 08BUnclassG3/1300426

1. Accomplishments

The digital tapes necessary to continue the project were received from the NDPFC on 20 February, and the corresponding imagery on 28 February. Both tapes and imagery were shipped immediately to the General Electric Photo Laboratory at Beltsville, Maryland, the tapes to be prepared for <u>Image 100</u> processing and the imagery to be enlarged for manual interpretation. The latter interpretation now is under way, and the <u>Image 100</u> operation is scheduled for 30-31 March at Daytona Beach.

In the computer here at Hanover the 55-category official land use map of the State of Connecticut is being collapsed into the basic 14-category legend to be applied to ERTS.

Dartmouth College Project Remote Sensing representatives are meeting regularly with personnel of the Office of Comprehensive Planning of the State of New Hampshire and their planning and photogrammetric consultants to formulate an effective land use data base program for the state. A visit also has been made to the Office of State Planning for Connecticut, at Hartford. Correspondence in being exchanged with the planners of the Boston Metropolitan area.

2. List of Articles, Reports and Talks

- a. During the academic term off of the Principal Investigator, Dr. Lindgren handled two major NASA sessions for the DCPRS, as follows:
 - (1) At the Third NASA/ERTS Symposium in Washington, D.C. in December 1973 he presented a paper on "Evaluation of ERTS Imagery for Acquiring Land Use Data of Northern Megalopolis". It is understood that a volume covering this symposium will be published soon by GSFC.
 - (2) At the meeting of the ERTS Land Use Panel at GSFC on 24 October 1973, he presented the status report and defense of the project.
- b. A chapter by Dr. Lindgren entitled "Urban Applications of Remote Sensing" has appeared in a new volume entitled<u>Remote Sensing:</u> <u>Techniques for Environmental Analysis</u> by Estes and Senger, Hamilton Publishing Company, Santa Barbara, California, 1974. 340 pages.
- c. See also the "final report" on this project, cited in the "note" at the head of this report.

3. Data Request Forms Submitted

23 January 1974: (a) for re-instatement of the former standing order for ERTS coverage of the New England test site.

for ERTS coverage of the New England test site.
(b) for a batch search for ERTS imagery on the New England test site area during the hiatus period of this contract (September to December 1973).
(c) for 36 b/w photos, 8 color photos and 8 digital tapes, all of the New Haven Conflecticut/area.

28 January 1974: Retrospective order for 84 9 x 9 b/v paper prints of the New England test site, as revealed by the batch search above.

> Robert E. Simpson Principal Investigator