



Department of Energy

Richland Operations Office
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9100794

91-ERB-051

MAR 05 1991

Mr. Paul T. Day
Hanford Project Manager
U. S. Environmental Protection Agency
Region 10
712 Swift Boulevard, Suite 5
Richland, Washington 99352

Mr. Timothy L. Nord
Hanford Project Manager
State of Washington
Department of Ecology
Mail Stop PV-11
Olympia, Washington 98504-8711

Messrs. Day and Nord:

HANFORD AERIAL PHOTOGRAPHY

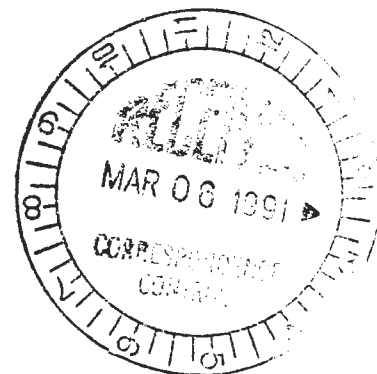
The U. S. Department of Energy, Richland Operations (DOE-RL) completed its review of the December 12, 1990, letter from Mr. Larry Goldstein, Washington State Department of Ecology, to Mr. Frank T. Calapristi, Westinghouse Hanford Company (WHC) (Attached). The following information is provided.

Area base maps for the 200, 300 and 400 Areas will be available within 4 weeks. However, you may want to visit the Hanford Site prior to this time and discuss your photo requests with our survey personnel.

Regarding your comments on mapping requirements, Hanford is currently identifying its requirements but this process is not complete. We are assessing for the most cost-effective method and your input is appreciated and will be considered in our assessment.

Our control needs have been defined and we are using the Lambert NAD 1983 coordinate system. We are not able to provide copies of last year's aerial photo contracts since this is business sensitive information.

Please address future correspondence to Mr. Steven H. Wisness, Hanford Project Manager, DOE-RL. It is acceptable to copy WHC cognizant personnel.



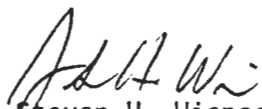
Messrs. Day and Nord

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If you require additional information, please contact Mr. K. Mike Thompson of DOE-RL on (509) 376-6421 or Mr. Frank T. Calapristi of WHC on (509) 376-6693.

Sincerely,


Steven H. Wisness
Hanford Project Manager

Attachment

cc w/att:

F. T. Calapristi, WHC

L. L. Powers, WHC

~~K. B. Venzel, WHC~~



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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Mail Stop PV-11 • Olympia, Washington 98504-8711 • (206) 459-6000

December 12, 1990

Mr. Frank Calapristi
Westinghouse Hanford
P.O. Box 1970
Richland, WA 99352

Re: Hanford Aerial Photography - Recommendations on How to Meet
Ecology's Spatial Data Needs.

Dear Mr. Calapristi:

12177

The Hanford Project would like to obtain information concerning WHC/PNL 1989/1990 aerial photography acquisitions. We suggest options that will help us produce a digital Hanford Site Base Map. These recommendations represent the collaborative efforts of Joy Denkers, Ecology and Ward Staubitz, US Geological Survey - Tacoma.

Information Needs and Recommendations:

We would like to obtain copies of all aerial photo contracts that were submitted this past year. What were the specs, the deliverables, and what is the scale of the photos? Where orthophotos ever produced? From this information we hope to find out what photography, if any, would be usable for inclusion into a Hanford digital base mapping project.

We would like to have access to the aerial photography that was flown of the Hanford site this past year. With the photos and the help of a photogrammetrist, we would be able to see if some of these photos could be used to create a digital base map. We may only need to refly a portion of the site, thus saving additional time and money. If some of the photography is usable, then we need control points (x,y,z values) captured in an established coordinate system, e.g. state plane.

If it is determined that none of the photography is usable, then we suggest that one contract be submitted for bid, specifying the entire Hanford site to be flown. Following are the Hanford Projects aerial photography needs for digital spatial data capture.

General Specifications:

Area of Coverage

560 sq. miles. To include the whole Hanford Site and adjacent areas along the site borders.

Deliverables

1). 1:2000 and 1:12000 scale black & white photography. We are

concerned about the relative accuracy since our need is for a planimetric base map. From this scale photography, we should be able to obtain an accuracy level of 0.5 - 1 meter.

2). Digital data captured of all buildings, wells, tanks, streams, etc.. This digitizing of the spatial data can be done through stereo compilation. Photodigitizing (planimetric line map) will be the most accurate and efficient way of capturing this digital information. It removes all displacement and the pointing accuracy is much greater than digitizing from photos or orthophotos. If photodigitizing is not possible, then we will need to have orthophotography produced so that we have a stable and geographically corrected base map from which to manually digitize from. These orthophotos can be produced in a variety of formats e.g. townships or 7.5' quads.

Control Needs

A good pattern of control points will be needed. All control points should be ground surveyed and have an X, Y, and Z value associated with each of them (e.g. control point - Northwest corner of a building). We strongly suggest that the ground control points are surveyed in a coordinate system, example - state plane coordinates, meters.

Costs

General estimates for photography range between \$15 - 20/line-mile depending on the number of sq. miles flown.

Photodigitizing is estimated at \$60./hr. Given time constraints, in-house digitizing costs, and the better accuracy level obtained through photodigitizing, we feel this is a cost-effective approach to digital data capture.

Please contact Joy Denkers at (206) 493-6172 if you have questions or comments concerning this request.

Sincerely,



Larry Goldstein
CERCLA Unit Supervisor
Nuclear & Mixed Waste Management

cc: Joy Denkers
Ward Staubitz, USGS
Paul Day, EPA
t. Veneziano, WHC

DISTRIBUTION COVERSHEET

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Subject Hanford Aerial Photography		

Internal Distribution				
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		Correspondence Control	A3-01	X
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		LC Brown	H4-51	X
		KL Hoewing		
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		HE McGuire		X
		K Parnell	H4-18	X
		LL Powers		X
		KR Jordan		X
		DA Turner	R1-10	X
		TB Veneziano (Assignee)	B2-35	X
		RD Wojtasek	L4-92	X
		EDMC	H4-22	X
		TPAI File	B2-35	X
		FT Calapristi	B2-35	X

