

00032

00032

| | |
|-------------------------------|---------------------|
| Form 504 | |
| U. S. DEPARTMENT OF COMMERCE | |
| COAST AND GEODETIC SURVEY | |
| DESCRIPTIVE REPORT | |
| Type of Survey | CHART TOPOGRAPHY |
| Field No. PH-7001 | Office No. TP-00032 |
| LOCALITY | |
| State | WASHINGTON |
| General locality | SNAKE RIVER |
| Locality | PENAWAWA |
| <u>19 69-70</u> | |
| CHIEF OF PARTY | |
| LIBRARY & ARCHIVES | |
| DATE | |

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY

☒ ORIGINAL☐ REVISED

SURVEY TP - 00032

JOB PH - 7001

PHOTOGRAMMETRIC OFFICE

Washington Science Center
Rockville, Maryland

OFFICER-IN-CHARGE

Richard H. Houlder

FOR REVISED SURVEY USE ONLY

ORIGINAL
SURVEY DATA:

JOB PH -

DATES:

19 To 19

I. INSTRUCTIONS DATED

1. OFFICE

Chart specifications Sept. 10, 1969
Aerotriangulation Feb. 10, 1970
Compilation March 11, 1970

2. FIELD

Aug. 8, 1969
Oct. 6, 1969

II. DATUMS

1. HORIZONTAL:

☒ 1927 NORTH AMERICAN

OTHER (Specify)

2. VERTICAL:

☐ MEAN HIGH-WATER
☐ MEAN LOW-WATER
☐ MEAN LOWER LOW-WATER
☒ MEAN SEA LEVEL

OTHER (Specify)

Normal pool level 635 feet MSL

3. MAP PROJECTION

Mercator

4. GRID(S)

STATE

ZONE

Washington

South

5. SCALE

1:10,000

STATE

ZONE

III. HISTORY OF OFFICE OPERATIONS

| OPERATIONS | | NAME | DATE |
|---|-----------------------|-------------------|------------|
| 1. AEROTRIANGULATION | BY | I.I. Saperstein | May, 1970 |
| METHOD: Analytical | LANDMARKS AND AIDS BY | | |
| 2. CONTROL AND BRIDGE POINTS | PLOTTED BY | P.J. Dempsey | May, 1970 |
| METHOD: Coradi | CHECKED BY | | |
| 3. STEREOSCOPIC INSTRUMENT | PLANIMETRY BY | J.H. Taylor | May, 1970 |
| COMPILATION | CHECKED BY | J.C. Richter | May, 1970 |
| INSTRUMENT: B-8 | CONTOURS BY | J.H. Taylor | May, 1970 |
| SCALE: 1:10,000 | CHECKED BY | J.C. Richter | May, 1970 |
| 4. MANUSCRIPT DELINEATION | PLANIMETRY BY | J.H. Taylor | June, 1970 |
| | CHECKED BY | J.C. Richter | June, 1970 |
| METHOD: Inked | CONTOURS BY | J.H. Taylor | June, 1970 |
| | CHECKED BY | J.C. Richter | June, 1970 |
| SCALE: | HYDRO SUPPORT DATA BY | | |
| | CHECKED BY | | |
| 5. OFFICE INSPECTION PRIOR TO FIELD EDIT | BY | J.P. Battley, Jr. | July, 1970 |
| 6. APPLICATION OF FIELD EDIT DATA | BY | J.C. Richter | Jan., 1971 |
| | CHECKED BY | | |
| 7. COMPILATION SECTION REVIEW | BY | J.P. Battley, Jr. | Mar., 1971 |
| 8. FINAL REVIEW | BY | J.P. Battley, Jr. | Mar., 1971 |
| 9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH | BY | | |
| 10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH | BY | | |
| 11. MAP REGISTERED - COASTAL SURVEY SECTION | BY | | |

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

| | | | | | |
|--|---------|---|----------|----------------|-----------------------------------|
| CAMERA(S) "L" 6" focal length | | TYPES OF PHOTOGRAPHY LEGEND | | TIME REFERENCE | |
| TIDE STAGE REFERENCE <input type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY | | (C) COLOR (P) PANCHROMATIC (I) INFRARED | | ZONE | <input type="checkbox"/> STANDARD |
| | | | | MERIDIAN | <input type="checkbox"/> DAYLIGHT |
| NUMBER AND TYPE | DATE | TIME | SCALE | STAGE OF TIDE | |
| 69-L(C)-1568 thru 1571 | 8-5-69 | 9:48 | 1:20,000 | Inapplicable | |
| 69-L(C)-1717 thru 1725 | 8-5-69 | 11:42 | 1:10,000 | Inapplicable | |
| 69-L(C)-1975 thru 1983 | 8-6-69 | 10:58 | 1:40,000 | Inapplicable | |
| 69-L(C)-1992 thru 2001 | 8-6-69 | 11:19 | 1:40,000 | Inapplicable | |
| Corps of Engineer W70-5-111 thru 118 | 4-16-69 | 13:53 | 1:12,000 | Inapplicable | |

REMARKS

2. SOURCE OF MEAN HIGH-WATER LINE:

Normal pool level 635 feet MSL located by office interpretation from color photography dated August, 1969.

3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:

Inapplicable

4. CONTEMPORARY HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)

| | | | | | |
|---------------|---------|------------------|---------------|---------|------------------|
| SURVEY NUMBER | DATE(S) | SURVEY COPY USED | SURVEY NUMBER | DATE(S) | SURVEY COPY USED |
| | | | | | |

5. FINAL JUNCTIONS

| | | | |
|-------|------------------|-------|------|
| NORTH | EAST TP-00033 | SOUTH | WEST |
|-------|------------------|-------|------|

REMARKS

HISTORY OF FIELD OPERATIONS

I. ☒ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

| OPERATION | NAME | DATE |
|-------------------------------------|--|---------------|
| 1. CHIEF OF FIELD PARTY | R.B. Melby | 11-25-69 |
| 2. HORIZONTAL CONTROL | RECOVERED BY R.B. Melby, E. Pursel, Jr. ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY R.B. Melby, E. Pursel, Jr. | July, 1969 |
| 3. VERTICAL CONTROL | RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY R.B. Melby | Aug., 1969 |
| 4. LANDMARKS AND AIDS TO NAVIGATION | RECOVERED (Triangulation Stations) BY LOCATED (Field Methods) BY R.B. Melby IDENTIFIED BY | Aug-Sept, '69 |
| 5. GEOGRAPHIC NAMES INVESTIGATION | TYPE OF INVESTIGATION <input checked="" type="checkbox"/> COMPLETE BY R.B. Melby <input type="checkbox"/> SPECIFIC NAMES ONLY <input type="checkbox"/> NO INVESTIGATION | March, 1970 |
| 6. PHOTO INSPECTION | CLARIFICATION OF DETAILS BY R.B. Melby | Aug., 1970 |
| 7. BOUNDARIES AND LIMITS | SURVEYED OR IDENTIFIED BY | |

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

2. VERTICAL CONTROL IDENTIFIED

| PHOTO NUMBER | STATION NAME | PHOTO NUMBER | STATION DESIGNATION |
|--------------|-----------------|--------------|---------------------|
| 69-L-1570 | PENNAWAWA, 1946 | 69-L-1571 | VP-71, VP-83A |
| 69-L-1570 | RILEY, 1945 | 69-L-1570 | VP-70 |
| 69-L-1983 | PING, 1946 | 69-L-1568 | VP-68 |
| | | 69-L-1567 | VP-67 |

3. PHOTO NUMBERS (Clarification of details)

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

Corp of Engineers photographs

| PHOTO NUMBER | OBJECT NAME | PHOTO NUMBER | OBJECT NAME |
|--------------|-------------------------------|--------------|-------------|
| W70-5-115 | Little Goose Reservoir Lt. 22 | | |
| W70-5-115 | Little Goose Reservoir Lt. 23 | | |
| W70-5-118 | Little Goose Reservoir Lt. 24 | | |
| W70-5-118 | Little Goose Reservoir Lt. 25 | | |

5. GEOGRAPHIC NAMES: ☒ REPORT ☐ NONE6. BOUNDARY AND LIMITS: ☐ REPORT ☐ NONE

7. SUPPLEMENTAL MAPS AND PLANS

Corp of Engineers map area drawings, C. G. proposed aid site drawings

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

RECORD OF SURVEY USE

I. MANUSCRIPT COPIES

| COMPILATION STAGES | | | DATE MANUSCRIPT FORWARDED | |
|---|-----------|---------|---------------------------|---------------|
| DATA COMPILED | DATE | REMARKS | MARINE CHARTS | HYDRO SUPPORT |
| Shoreline, planimetry Bathymetric contours and Contours | May, 1970 | | | |
| | | | | |
| | | | | |
| | | | | |

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

| NUMBER | CHART LETTER NUMBER ASSIGNED | DATE FORWARDED | REMARKS |
|--------|---------------------------------|-------------------|---------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☐ COMPUTER READOUTS.
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM C&GS 567 SUBMITTED BY FIELD PARTIES.
3. ☐ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, ESSA FORM 76-36C.
ACCOUNT FOR EXCEPTIONS:

4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

IV. SURVEY REVISION (This section shall be completed when a revised survey is registered.)

| FIRST REVISION | SURVEY NUMBER TP - (2) | JOB NUMBER PH - | REMARKS |
|--------------------|---------------------------|--------------------|---------|
| | DATE OF PHOTOGRAPHY | DATE OF FIELD EDIT | |
| SECOND REVISION | SURVEY NUMBER TP - (3) | JOB NUMBER PH - | REMARKS |
| | DATE OF PHOTOGRAPHY | DATE OF FIELD EDIT | |
| THIRD REVISION | SURVEY NUMBER TP - (4) | JOB NUMBER PH - | REMARKS |
| | DATE OF PHOTOGRAPHY | DATE OF FIELD EDIT | |

Summary to Accompany Descriptive Reports
TP-00028 through TP-00035
PH-7001
March 1971

This project consists of eight chart topography manuscripts, covering the Little Goose Dam and Pool area on the Snake River, Washington. The manuscripts were compiled at a scale of 1:10,000 to provide the base for a new small craft route chart, (684-SC), scale 1:20,000.

The Little Goose Pool was formed by impounding the water behind Little Goose Dam east to Lower Granite Dam. PH-6804 (683-SC) junctions this project at the Little Goose Dam (TP-00027).

Field operations prior to bridging included the premarking of horizontal control, selecting, photo-identifying, and determining elevations of photogrammetric vertical control points, identifying and determining the elevation of features critical for charting and geographic names investigation. This was completed in November 1969.

Bridging of the entire Pool area was completed in May 1970, by the analytical aerotriangulation method. Two strips of 1:40,000 scale color photography were bridged, providing control for five strips of 1:20,000 scale color plates. Some of the pre-marked stations also appeared on the 1:20,000 scale compilation photography.

1:10,000 scale color was available to more accurately contour a few flat areas. Field vertical control points were located in some instances on this photography.

Compilation was accomplished in the Washington Office in May - June 1970. Compilation photography was the bridged 1:20,000 scale color taken August 5, 1969, prior to the flooding of the pool area. Project specifications at the start of compilation indicated a planned normal pool level for the area to be 638' above MSL, with a maximum level of 646.5'. B-8 instrument compilation soon revealed that this would result in the new railroad bed being underwater in several places. This was confirmed in consultation with the Corps of Engineers, Walla Walla District, and a revised normal pool level of 635' above MSL was established with a maximum level of 638 feet. (See

Field Edit Instructions, paragraph 6, dated July 28, 1970.) The river level for the area prior to flooding was approximately 540 feet above MSL in the vicinity of Little Goose Dam, to 610 feet in the vicinity of Lower Granite Dam. The area between the prescribed normal pool level and the prior river level was contoured on the B-8 stereoplotter at intervals compatible with required depth curves, (3', 6', 9', 12', 18', etc.), and were supplemented with spot elevations (soundings), to define shoals, gentle slopes and deep water. Rigid vertical and horizontal accuracy was maintained during compilation to comply with project requirements. Along with this bathymetry, the required chart compilation features were compiled above the 635' shoreline. This included the 700 foot contour for use by marine charts in correlating the compilation with existing maps and to indicate areas of change.

Field edit was completed in September 1970, and encompassed the verification and/or location of aids to navigation, the identification of landmarks, a facility survey and verification of compiled features.

The application of field edit revisions and additions was completed in January 1971, for the entire project. 1:12,000 scale C of E panchromatic photography was submitted with field edit data. These photographs were taken after the pool area was filled, and were used to verify compilation and position flights. Final review was completed in March 1971.

1:20,000 scale reductions were supplied to the Marine Charts Division prior to final registration. The facilities located during field edit were coded to the Facilities Report on these copies, and the report submitted with the reductions. Areas where the originally compiled contours, (Hydrography), are suspect due to new construction were pin-pointed for Marine Charts disposition. (See the Review Reports).

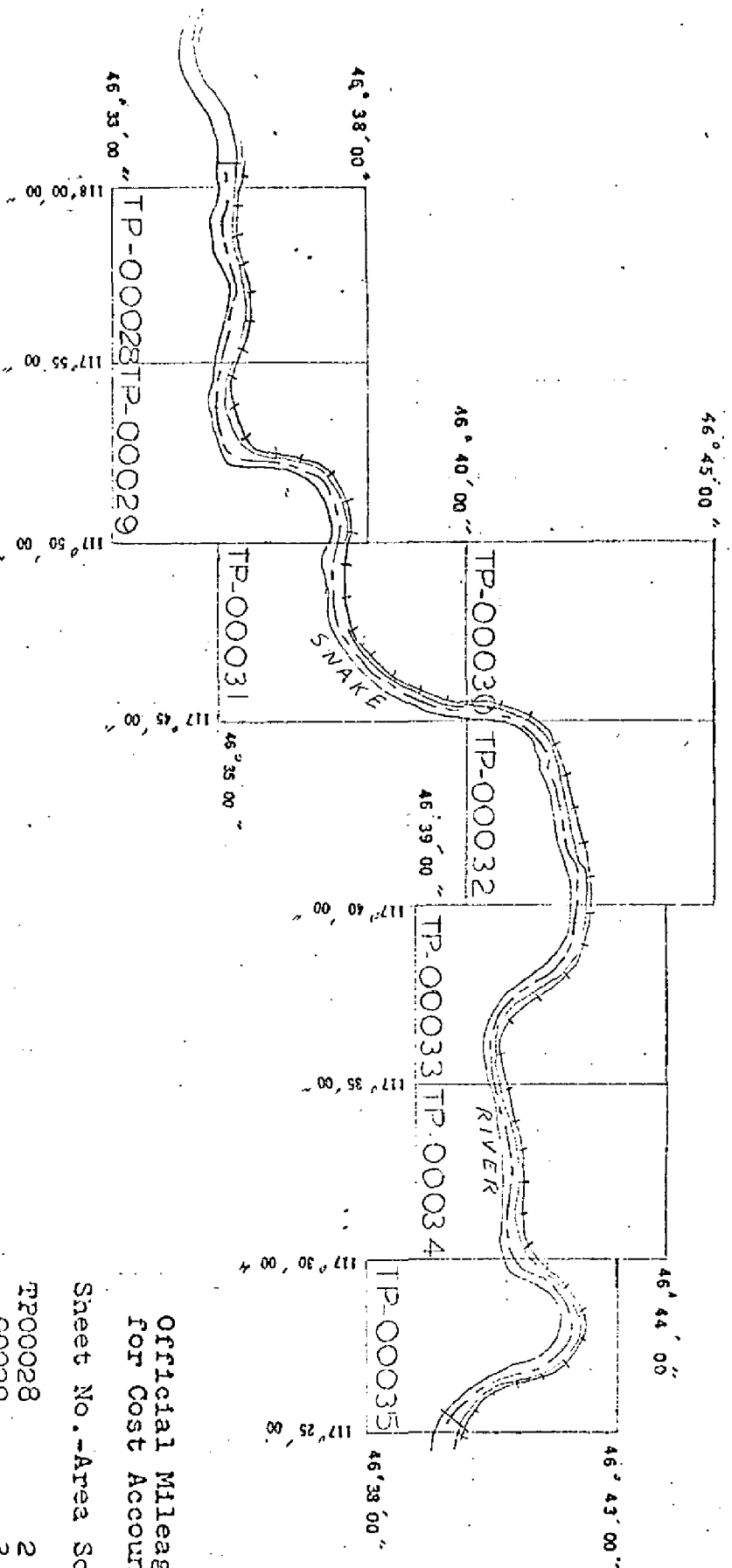
A Registration Manuscript Copy of the maps will be registered in the Bureau Archives under their respective TP numbers.

Submitted by:

Jeter P. Battley, Jr.

SNAKE RIVER LITTLE GOOSE POOL WASHINGTON CHART TOPOGRAPHY SCALE 1:100,000

JOB PH-7001



Official Mileage
for Cost Accounts

Sheet No.-Area Sq. Mi.

| | |
|---------|----|
| TP00028 | 2 |
| 00029 | 3 |
| 00030 | 3 |
| 00031 | 1 |
| 00032 | 2 |
| 00033 | 2 |
| 00034 | 2 |
| 00035 | 3 |
| Total | 18 |

FIELD INSPECTION REPORT

Project PH-7001

Little Goose Pool, Snake River, Washington

September - November 1969

2. Areal Field Inspection:

The project area is a section of the Snake River that will be impounded by the Little Goose Dam, forming a navigable pool and the lands adjacent to the pool.

The river passes through a generally steep, rocky gorge with numerous basaltic bluffs. The tops of the bluffs give way to open, rolling prairies which in a large part are cultivated, dry land grain fields.

The area is sparsely populated, except for an occasional railroad station or farmhouse.

The area is traversed by a line of the Camas Prairie Railroad, along the north shore of the river. The old Central Ferry highway bridge is being replaced by a newer and higher span.

3. Horizontal Control

Horizontal control requirements consisted of paneling of preselected triangulation stations. The panels were the conventional, white, opaque, polyethylene material, cut to conform to the specifications for the pre-marking of control stations. All of the stations paneled were bureau triangulation stations. At the request of several of the property owners the panels were removed after the completion of the aerial photography. All of the panels were still in place and in good condition when the field personnel revisited each station site to remove the paneling material. It was not necessary to establish any additional horizontal control.

Form 152, Control Station Identification cards were submitted for each station paneled. All of the paneled stations were in open areas and no difficulty should be encountered due to trees or shadows caused by bluffs.

4. Vertical Control

Vertical control consisted of the determination by the usual field methods of the elevations of preselected, photogrammetric, vertical control points. These points are indicated on the field photographs with the prefix "VP" and numbering system, coinciding with the last two digits of the aerial photograph number, with a sketch of the feature on the reverse side of the photographs.

Critical elevation features, such as rocks, boulders, hilltops, etc., that are found in the range of 510 to 548 feet above mean sea level in the proposed pool area were identified on the field photography and their elevations were determined by field methods. In some instances, the field elevations of suspected critical elevation features did not fall within the critical range. Nevertheless they were photo-identified and their elevations inked on the photography.

The critical elevation features were indicated on the field photography with the prefix "C.E.P.-" a sequential number, field determined elevation and a brief description.

Several supplemental elevations were determined in preselected areas that are generally flat or with a gentle gradient at or near the proposed high water line. These supplemental elevations were designated on the field photographs with the "X.V.P.-" prefix, a sequential number, a field elevation, and a sketch on the reverse side of their respective photograph.

All leveling was based on bench marks established by the Coast & Geodetic Survey, Corps of Engineers, and the U. S. Geological Survey. The elevations of all bench marks used as the basic control, has been previously established by differential, spirit leveling by the respective agencies.

5. Contours and Drainage

Contours only applicable to the compilation of depth curves for underwater topography, based on the field determination of preselected photogrammetric vertical control points.

7. Alongshore Features

The project instructions did not require field inspection, although four overhead power transmission line crossings have been indicated on the field photography.

13. Geographic Names

Geographic names are the subject of a separate report. As of this date (November 1969), the field investigation of geographic names had not been completed, so the report will be submitted at a later date.

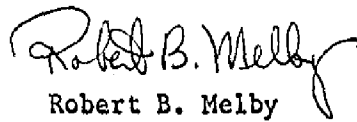
14. Special Reports

The method of leveling used by the field party was the conventional trigonometric leveling with the Wild TIA theodolite and a stadia rod with a rod bubble to insure the verticality of the rod. The U. S. Geological Survey "Stadia Tables for Obtaining Differences in Elevations 9-1163" was used to compute the trigonometric differences in elevations.

In the more remote areas where the usual trigonometric leveling would be laborious and slow, the distance was determined by Electronic Distance Measuring Instruments (Electro chains) and observing reciprocal vertical angle observations between the points as well as to a nearby eccentric or auxilliary point to afford an elevation check.

The major difficulty encountered in the field was access to working grounds. There were few roads and this combined with the usual clearing of the pool area of obstructions and cultural features posed some hindrance to field operations.

Respectfully submitted,



Robert B. Melby
Chief, PMC Photo Party

11/25/69

Photogrammetric Plot Report
Job PH-7001
Snake River, Little Goose Pool
Washington

June 1970

21. Area Covered

This report covers the area of Little Goose Dam and Pool on the Snake River, consisting of eight (8) 1:10,000 scale sheets, TP-00028 through TP-00035.

22. Method

Seven (7) strips of photography were bridged using analytical aerotriangulation methods. Strips 1 and 2 at a scale of 1:40,000 were bridged and used to control the entire project. Strips 3, 4, 6, 8 and 9 (1:20,000 scale color photography) were bridged using control located from Strips 1 and 2. Compilation points were dropped on Strips 4A and 5 from Strips 4 and 6 to control the models both horizontally and vertically. The 1:20,000 scale photography is to be used for compilation. The attached sketch of the strips bridged shows the placement and closure of triangulation used in the final strip adjustments. All bridge points are on Washington South Zone plane coordinates and converted to Mercator values.

23. Adequacy of Control

All horizontal control was premarked and was adequate to control the 1:40,000 scale bridges. Some of the pre-marked control also appeared on the 1:20,000 scale photography. The field party furnished elevations to vertically control each strip of 1:20,000 photographs and proved adequate.

-2-


24. Photography

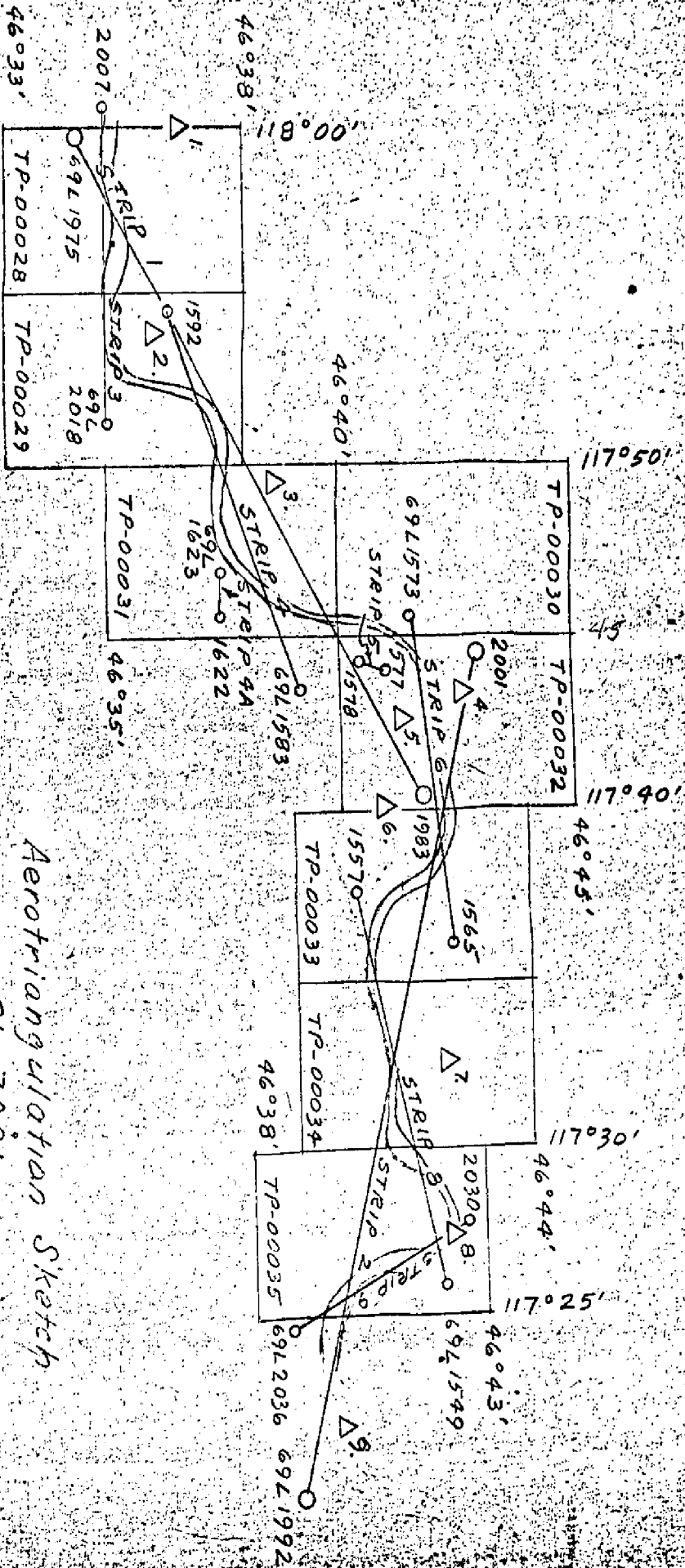
The definition and quality of the RC-8 "L" camera photography were good. No difficulty was encountered in the bridging of any strip.

Respectfully submitted,


I. I. Saperstein

Approved and forwarded,


Henry P. Eichert
Chief, Aerotriangulation
Section



COMPILATION REPORT
TP-00032

31. Delineation

Color photography scale 1:20,000, dated August 5 and 6, were bridged and used for delineation on the B-8 stereoplotter. The normal pool level is compiled at 635 feet MSL. A croma-flex copy and ozalid copies were ordered for this manuscript for field edit use. After field edit is applied, $\frac{1}{2}$ reductions will be made for chart compilation at 1:20,000 scale.

32. Control

All horizontal control was premarked and adequate in density and placement. Vertical control was of prime importance for this project, as the area contoured is to be used for bathymetry (depth curves, etc.). Excellent vertical accuracy was achieved in the bridge from numerous field identified vertical points. (See Photogrammetric Plot Report.)

33. Supplemental Data

Corps of Engineer photographs at 1:12,000 scale, flown after the pool was filled, were used for comparison. A few minor differences were noted, but the pool elevation was not known at time of photography.

34. Contours and Drainage

Color photography at 1:20,000 scale was bridged by analytic methods and used in the B-8 stereoplotter for contouring. Photography taken in August 1969, before the pool area was flooded, is of good quality, and contours within the required accuracy were obtained. In some areas, construction was not completed, and some of the contours will probably change when construction is completed. Contours were drawn at prescribed intervals from the old river shoreline to 635 feet MSL (new shoreline).

Drainage -- no comment.

35. Shoreline and Alongshore Details

The shoreline was delineated from color photography of August

1969, and compared with Corps of Engineer 1:12,000 scale photography, after the pool was filled, and is in good agreement, except for new construction.

36. Offshore Detail

No comment

37. Landmarks and Aids

U.S. Coast Guard Civil Engineering blueprints were furnished for location of Aids to Navigation, but at the time of compilation, no aids could be located, and will be located by field edit or later photography. Landmarks to be located by field edit.

38. Control for Future Surveys

None

39. Junctions

Junction was made to the west with TP-00030, and to the east with TP-00033.

40. Horizontal and Vertical Accuracy

Refer to paragraph No. 23 of Photogrammetric Plot Report, and paragraph No. 32 of this report.

41. through 45.

Inapplicable

46. Comparison With Existing Maps

Comparison has been made with U.S.G.S. Quadrangle, Penawawa, Washington, Edition of 1950, scale 1:62,500, contour interval 40 feet. Compilation instructions state that all detail and the 700 foot contour that have changed above the 635 foot pool level should tie into the existing Quadrangle. In a few areas the 800 foot contour and the 900 foot contours have also changed. They were compiled where the changes occurred.

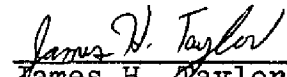
47. Comparison With Nautical Charts

No chart exists in this area. This is a new chart compilation


48. Geographic Name List

Camas Prairie
Fincher Grade
Horton Road
Penawawa
Penawawa Canyon
Penawawa Creek
Snake River

Respectfully submitted:


James H. Taylor

Approved and forwarded:


K. N. Maki, Chief
Compilation Section

May 6, 1971

GEOGRAPHIC NAMES
FINAL NAME SHEET
PH-7001 (Washington)
TP-00032

Camas Prairie Railroad

Fincher Grade

Horton Road

Penawawa

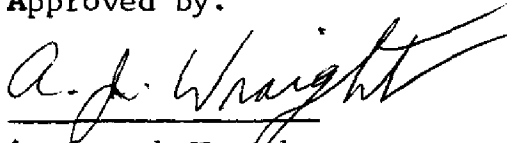
Penawawa Canyon

Penawawa Creek

Penawawa ~~Marian~~ *MARTIN*

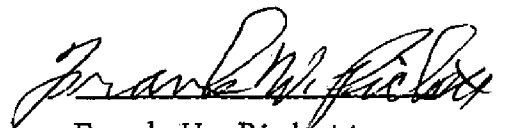
Snake River

Approved by:



A. Joseph Wraight
Chief Geographer

Prepared by:



Frank W. Pickett
Cartographic Technician

FIELD EDIT REPORT
CHART TOPOGRAPHY
LITTLE GOOSE POOL, SNAKE RIVER, WASHINGTON
August-September 1970
Map Manuscripts TP-00027 through TP-00035

This report covers the portion of the Snake River impounded by the Little Goose Dam and entirely within the State of Washington.

The entire shoreline was inspected by small boat. The shoreline and alongside features were compared with the field edit copies of the map manuscripts (discrepancy prints) and/or the Corps of Engineers, field, contact photographs.

The field edit copies (discrepancy prints) of the map manuscripts were used as the index for the field corrections and cross-referenced to the field photography.

Adequacy of Compilation:

The extent and accuracy of the maps appear to be reasonably complete.

As the river passes through a definite gorge, cliffs and bluffs are in evidence throughout the project area.

There are so few buildings along the shoreline, that nearly every shoreline cultural feature is of landmark value. Two small communities are found along the north shore of the river, Central Ferry and Almota. They are the residences of railroad maintenance personnel and grain storage and barge loading facilities.

Several recreation areas are found along the shoreline and are in various stages of development. Usually they consist of a parking area, surfaced small boat launching ramp and comfort facilities.

The entire north shore at the river is traversed by a line of Camas Prairie Railroad. At Central Ferry a state highway crosses the river and except for a few secondary roads that terminate at the river's edge, there is limited access to the river.

All fixed aids to navigation were field checked and photo identified on the Corps of Engineer photography when possible. Aids that did not appear on the photography were located by sextant/theodolite fix or from the Corps of Engineers ground survey control. Only the bases of the towers of the fixed aids were in place at the time of the photo-field edit. The lighting mechanism and batteries were installed prior to the leaving of the field area by the field edit personnel.

All aids to navigation are listed on a field copy of form 567.

All landmarks were investigated and listed on a field copy of form 567.

Purple ink was used to indicate corrections on the discrepancy prints.
Green ink was used to indicate deletions.

Rocks and shoals were investigated and the elevations of the tops of these features were determined by the field editor. Certain "humps" or "mounds" were compiled and contoured. The Corps of Engineers, Walla Walla District, stated all of the stockpiles of sand/gravel, etc., were removed to the normal ground elevation. If any of these areas still remain in doubt, it is suggested the Corps of Engineers, Walla Walla District be contacted as they probably have photography and/or contoured map sections of the areas in question prior to the flooding by the dam. This special photography was used to determine the progress and the amount of clearing performed by the clearing contractors.

Information pertinent to each manuscript will be discussed under each listed manuscript number.

TP-00027

Several "humps" of crushed rocks were reported to have been moved prior to the flooding by the Corps of Engineers. The airstrip east of the Little Goose Dam is still in operation. It was reported to have been constructed for use by the Corps of Engineers and construction contractors. It is unattended as of this date. The water tank located about 700 feet south of the west end of the airstrip has been removed. A surfaced boat ramp is found in the vicinity of the airstrip.

TP-00028

Two aids to navigation were located on this sheet.

TP-00029

Shoreline changes are reflected on Corps of Engineers photograph W70-5-76, in the vicinity of Light 5, also on photograph W70-5-82 about 3000 feet east of Light 8. The railroad relocation appears on the Corps of Engineers photography. The minutes of latitude along the west edge of the sheet are 10 minutes in error.

TP-00030

A feature compiled as a tower was deleted as the structure was of a temporary nature. The railroad has been relocated and construction is complete.

TP-00031

Near the west edge of the sheet are found several rectangular features that were former stockpiles of crushed rock, gravel, etc. The Corps of Engineers reported these stockpiles were removed prior to flooding. A public facility is found on photo W70-5-90. This feature is still under construction, but the ramp boat basin and comfort facilities have been completed. A new fixed span highway bridge has been constructed over the Snake River at Central Ferry. The old bridge located parallel to and along the downstream side of the new bridge was demolished in place and the steel structure was dumped into the river between the blown piers. See reports of demolition of the bridge by Corps of Engineers and U. S. Coast Guard with attached drawings, showing the elevations of the old piers and sunken steel bridge sections.

Two new grain storage and barge loading facilities are found on this sheet. Construction of these two facilities had commenced at the date of photography. Plot plans, ground survey and photo locations can aid in the location of the two facilities. Overhead Power Line clearances are submitted in the form of Corps of Engineers permits.

TP-00032

Shoreline changes are reflected on the Corps of Engineers photography. Specific photo numbers are referenced on the discrepancy print. The railroad has been relocated and it is presently in service. A surfaced boat launching ramp is found at the mouth of Penawawa Creek. All aids to navigation were photo-identified.

TP-00033

Shoreline changes have been indicated on the Corps of Engineers photography. Aids to navigation have been photo-identified. The railroad relocation and construction have been completed.

TP-00034

The two possible shoal areas have been reported by the Corps of Engineers, Walla Walla District, to have been graded to an elevation of 617 feet. See referenced Corps of Engineers drawings on Reservoir clearing. Shoreline changes have been indicated on the Corps of Engineers photography.

TP-00035

At the west edge of the sheet, a shoal area was reported to have been graded to an elevation of 617 feet by the Corps of Engineers, Walla Walla District. See U.S. E. Reservoir clearing drawing. At Almota, a new grain storage and barge loading facility has been constructed. See

TP-00035 (Continued)

referenced photograph for location of the facility and other changes in the area. The boulder jetties protecting Boyer Marina have been constructed. The positions of Boyer Lower Range and Boyer Upper Range were determined by ground survey methods from existing Corps of Engineers horizontal control. The positions should be considered of third order accuracy or less. The airstrip is in operation, but unattended. Its use is mainly for the use of Corps of Engineers and construction personnel. At present the airstrip is scheduled to remain in operation after the completion of Lower Granite Dam and become part of an recreational complex in the area of Boyer Marina. Construction has resumed on the Lower Granite Dam and frequent shoreline and cultural changes will be evident in its vicinity.

Respectfully submitted,

Robt. B. Melby

Robert B. Melby
Chief, Field Party, PMC

Review Report TP-00032
Chart Topography
April 1971

61. General Statement

(See the Summary in Preface) The Penawawa Marine shown on this map was constructed after the compilation photography was flown. Glass plates of the 1:12,000 scale C of E photography that was flown after flooding of the pool area were set in the B-8 stereoplotter to delineate this facility. A new road and railroad, along with changes in the 700 and 800 foot contours due to grading, were also revised. Hydrography, as originally compiled bordering these areas, should be re-surveyed. (See the General Statement of the Review Report for TP-00031 for an explanation and recommendation concerning this problem.)

62. Comparison With Registered Topographic Surveys

None

63. Comparison With Maps of Other Agencies

Comparison was made with U.S.G.S. Quadrangle, Penawawa, Washington, 1950 Edition, scale 1:62,500, contour interval 40 feet. Corps of Engineer Drawings LGG 1-0-9/16 to LGG 1-0-9/29, scale 1:8333, dated 1957, contour interval 10 feet, were compared during compilation and review for accuracy of contours compiled.

64. Comparison With Contemporary Hydrographic Surveys

None

65. Comparison With Nautical Charts

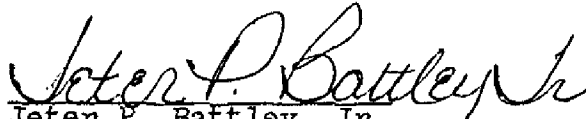
None

66. Adequacy of Results and Future Surveys


This map complies with project instructions, and will provide an excellent base for new chart 684-SC. The areas mentioned in paragraph 61 of this report should be investigated for updating of hydrography.

The map complies with the National Standards of Accuracy.

Reviewed by:


Jeter P. Battley, Jr.

Approved by:


Charles Theurer
Chief, Photogrammetric Branch *add*


Chief, Photogrammetry Division

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEYNONFLOATING AIDS ~~OR LANDMARKS FOR CHARTS~~TO BE CHARTED
~~TO BE REVIEWED~~
~~1980 DELETED~~ } STRIKE OUT TWO

Seattle, Washington

September 2, 1970

I recommend that the following objects which have *(have not)* been inspected from seaward to determine their value as landmarks be charted on *(deleted from)* the charts indicated.

The positions given have been checked after listing by Wyle L. Riffers

Robert B. Melby

Chief of Party

| STATE | WASHINGTON | CHARTING NAME | DESCRIPTION | SIGNAL NAME | POSITION | | | | | | METHOD OF LOCATION AND SURVEY NO. | DATE OF LOCATION | HARBOR CHART | INSHORE CHART | OFFSHORE CHART | CHARTS AFFECTED |
|-------|------------|---------------|---------------------------------|-------------|-----------|-------------|------------|--------|-------------|------|-----------------------------------|------------------|--------------|---------------|----------------|-----------------|
| | | | | | LATITUDE* | | LONGITUDE* | | LATITUDE* | | | | | | | |
| | | | | | ° | ' | ° | ' | ° | ' | | | | | | |
| | | | | | | D.M. METERS | | | D.F. METERS | | | | | | | |
| | | | Little Goose Reservoir Light 21 | 1969 39 | 46 41.5 | 26.9 | | | 3.8 | | N.A. | TP-00030 | 8-14-70 | | | 684 SC |
| | | | | | | 832.0 | 117 45.1 | 180.0 | | 1927 | PHOTO | | | | | |
| | | | | | | 46.6 | | 35.4 | | N.A. | TP-00032 | 8-14-70 | | | | 684 SC |
| | | | Little Goose Reservoir Light 22 | 1969 41 | 46 41.8 | 1439.0 | 117 42.6 | 752.0 | | 1927 | PHOTO | | | | | |
| | | | | | | 2.8 | | 40.3 | | N.A. | TP-00032 | 8-14-70 | | | | 684 SC |
| | | | Little Goose Reservoir Light 23 | 1969 43 | 46 42.1 | 88.0 | 117 42.7 | 856.0 | | 1927 | PHOTO | | | | | 684 SC |
| | | | | | | 0.7 | | 30.7 | | N.A. | TP-00032 | 8-14-70 | | | | 684 SC |
| | | | Little Goose Reservoir Light 24 | 1969 45 | 46 42.0 | 21.0 | 117 40.5 | 653.0 | | 1927 | PHOTO | | | | | 684 SC |
| | | | | | | 17.6 | | 18.6 | | N.A. | TP-00032 | 8-14-70 | | | | 684 SC |
| | | | Little Goose Reservoir Light 25 | 1969 47 | 46 42.3 | 544.0 | 117 40.4 | 396.0 | | 1927 | PHOTO | | | | | 684 SC |
| | | | | | | 2.3 | | 31.5 | | N.A. | TP-00033 | 8-14-70 | | | | 684 SC |
| | | | Little Goose Reservoir Light 26 | 1969 49 | 46 42.0 | 72.0 | 117 39.5 | 670.0 | | 1927 | PHOTO | | | | | 684 SC |
| | | | | | | 11.0 | | 14.4 | | N.A. | TP-00033 | 8-14-70 | | | | 684 SC |
| | | | Little Goose Reservoir Light 27 | 1969 51 | 46 42.2 | 339.0 | 117 39.2 | 306.0 | | 1927 | PHOTO | | | | | 684 SC |
| | | | | | | 49.4 | | 51.8 | | N.A. | TP-00033 | 8-14-70 | | | | 684 SC |
| | | | Little Goose Reservoir Light 28 | 1969 53 | 46 41.8 | 1524.0 | 117 38.9 | 1100.0 | | 1927 | PHOTO | | | | | 684 SC |
| | | | | | | 50.5 | | 20.6 | | N.A. | TP-00033 | 8-14-70 | | | | 684 SC |
| | | | Little Goose Reservoir Light 29 | 1969 55 | 46 40.8 | 1559.0 | 117 37.4 | 439.0 | | 1927 | PHOTO | | | | | 684 SC |
| | | | | | | 35.9 | | 52.1 | | N.A. | TP-00033 | 8-13-70 | | | | 684 SC |
| | | | Little Goose Reservoir Light 31 | 1969 59 | 46 40.6 | 1108.0 | 117 36.9 | 1107.0 | | 1927 | PHOTO | | | | | 684 SC |
| | | | | | | 20.2 | | 36.6 | | N.A. | TP-00033 | 8-13-70 | | | | 684 SC |
| | | | Little Goose Reservoir Light 32 | 1969 60 | 46 40.3 | 623.0 | 117 36.6 | 777.0 | | 1927 | PHOTO | | | | | 684 SC |
| | | | | | | 32.9 | | 26.7 | | N.A. | TP-00033 | 8-13-70 | | | | 684 SC |
| | | | Little Goose Reservoir Light 33 | 1969 61 | 46 40.6 | 1016.0 | 117 35.4 | 568.0 | | 1927 | PHOTO | | | | | 684 SC |
| | | | | | | 35.9 | | 55.4 | | N.A. | TP-00034 | 8-13-70 | | | | 684 SC |
| | | | Little Goose Reservoir Light 34 | 1969 63 | 46 40.6 | 1109.0 | 117 33.9 | 1178.0 | | 1927 | PHOTO | | | | | 684 SC |
| | | | | | | 50.1 | | 14.9 | | N.A. | TP-00034 | 8-13-70 | | | | 684 SC |
| | | | Little Goose Reservoir Light 37 | 1969 67 | 46 40.8 | 1154.0 | 117 32.3 | 316.0 | | 1927 | PHOTO | | | | | 684 SC |

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if determined, shall be reported on this form. Revisions shall show the old and new positions. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

* TABULATE SECONDS AND METERS

SNAKE RIVER - LITTLE GOOSE POOL
WASHINGTON

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT CONTROL RECORD

South Zone

MAP T.

PROJECT NO. PH-7001

SCALE OF MAP 1:10,000

SCALE FACTOR

| STATION | SOURCE OF INFORMATION (INDEX) | DATUM | LATITUDE OR Y COORDINATE LONGITUDE OR X COORDINATE | N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS (1 FT. = 3048006 meter) FORWARD (BACK) |
|------------------------|-------------------------------|------------|---|---|
| BRYAN, 1946 | PC'S Pg 224 | NA 1927 | 2,741,343.50 516,107.52 | |
| PING, 1946 | PC'S Pg 224 | NA 1927 | 2,710,722.92 503,788.50 | |
| TRAMWAY, 1945 | Pg 225 | NA 1927 | 2,783,651.30 500,160.17 | |
| ALMOTA, 1945 | Pg 225 | NA 1927 | 2,760,290.49 514,006.72 | |
| Sub. Pt. ALMOTA, 1945 | Comp | 1927 | 513,948.68 | |
| RILEY, 1945 | Pg 226 | NA 1927 | 2,697,743.28 504,851.72 | |
| SCHMIDT, 1946 | Pg 226 | NA 1927 | 2,628,288.07 476,617.77 | |
| Sub. Pt. SCHMIDT, 1946 | Comp | 1927 | 2,628,223.28 476,538.99 | |
| PENNAWAWA, 1946 | Pg 226 | NA 1927 | 2,697,371.96 513,745.31 | |
| RIDPATH, 1946 | Pg 226 | NA 1927 | 2,654,958.47 475,475.41 | |
| COX, 1946 | Pg 226 | NA 1927 | 2,671,405.97 488,348.82 | |
| CANYON, 1946 | Pg 227 | NA 1927 | 2,618,340.11 482,014.05 | |
| COMPUTED BY I.T.S. | DATE 2/20/70 | | CHECKED BY | DATE 2/24/70 |