SUMMARY OF PROJECT # 76-FDC-12

C O L U M B I A R I V E R @ REVELSTOKE

The field survey was carried out between May 30th and June 10th 1977.

The area covered, extended from the Revelstoke airport at the south end to the new proposed dam site at the upstream end of the survey, a distance of approx. lo mls.

After the erection of the Arrow Dam the water backs up at highwater stage to the old highway bridge at Revelstoke, flooding the banks. However at the time of survey the original River channel and the overbanks were exposed. Since no detailed topographic mapping was available of the area and the photography obtained at highwater level, additional flying was requested by this party and in turn carried out.

Field control for floodplain mapping was obtained involving 43 vertical 14 horizontal control staions and 8 traverse set up. The entire control is based on Geodetic of Canada Datum Bench Marks 229J, 1056-C, 68-C-073, 310-C, 70-C001, 70-C002 and triangulation stations "Tie-In", "Cliff" and "Begbie" established by the Provincial Topogrhic Survey Division. Elevations as quoted for mapping are in metres and positions are geographic and in UTM ZONE 11 coordinates. Due to the construction in progress of the dam site North of Revelstoke some bench Marks and horizontal markings are already destroyed. 7 permament Water Resources rock bolt were set into concrete in key locations for future reference and flood plain management as well as 75 temporary bench Marks marked by Water Resources BM tags. Ties to legal survey boundaries were made at every traverse set up where possible.

The river survey consisted of 25 cross sections on the Columbia River and 12 cross-section of the Illecillewaet River. Where ever visible the natural boundary of the river was obtained during cross sectioning. A Longitudinal profile was run in the field and produced in the office with chainages taken off the air-photograph mosaic scale 1"-approx. 1510' (1:18120). Detailed measurements and drawings were made of 4 bridges. For judgement of roughness factor, growth and bank material pictures were taken at almost every river section.

The project was completed in 122 man field days, 2 man days over the original estimate. The party was accommodated in the Sandman Inn.

Party Chief : P. Schreiber Ass't. Party Chief: G.Roberts

Instrumentmen: H.Brazier
R.Edward

Rodmen: P.Saunders
J.Carter
M.Lister
T.Mueller

Data recorded in Field, level & IBM books

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Note: The water surface level is effected not only by the storage at the Arrow Dam but also by the water release at the Mica Dam, with a very rapid change in elevation.