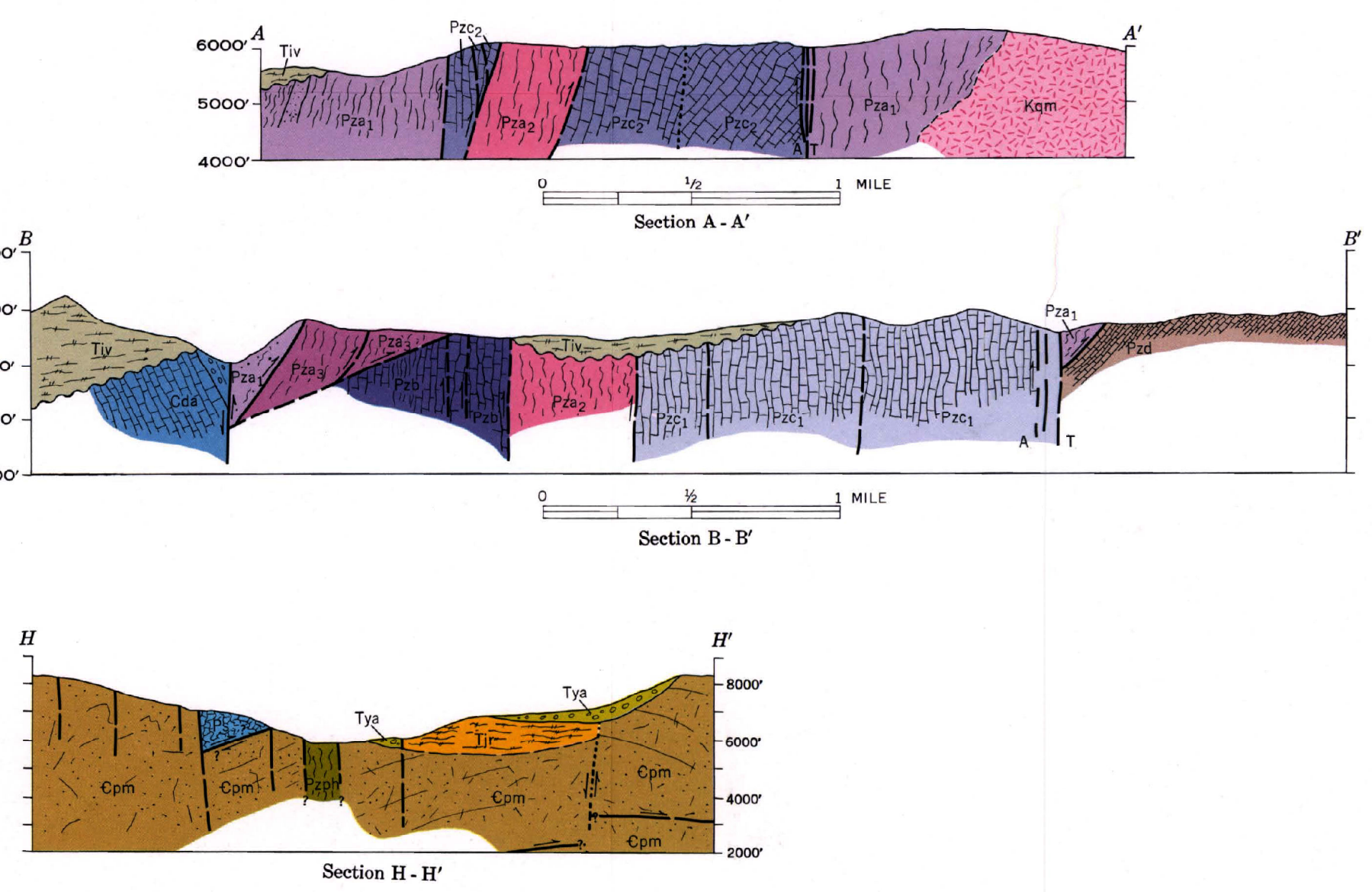
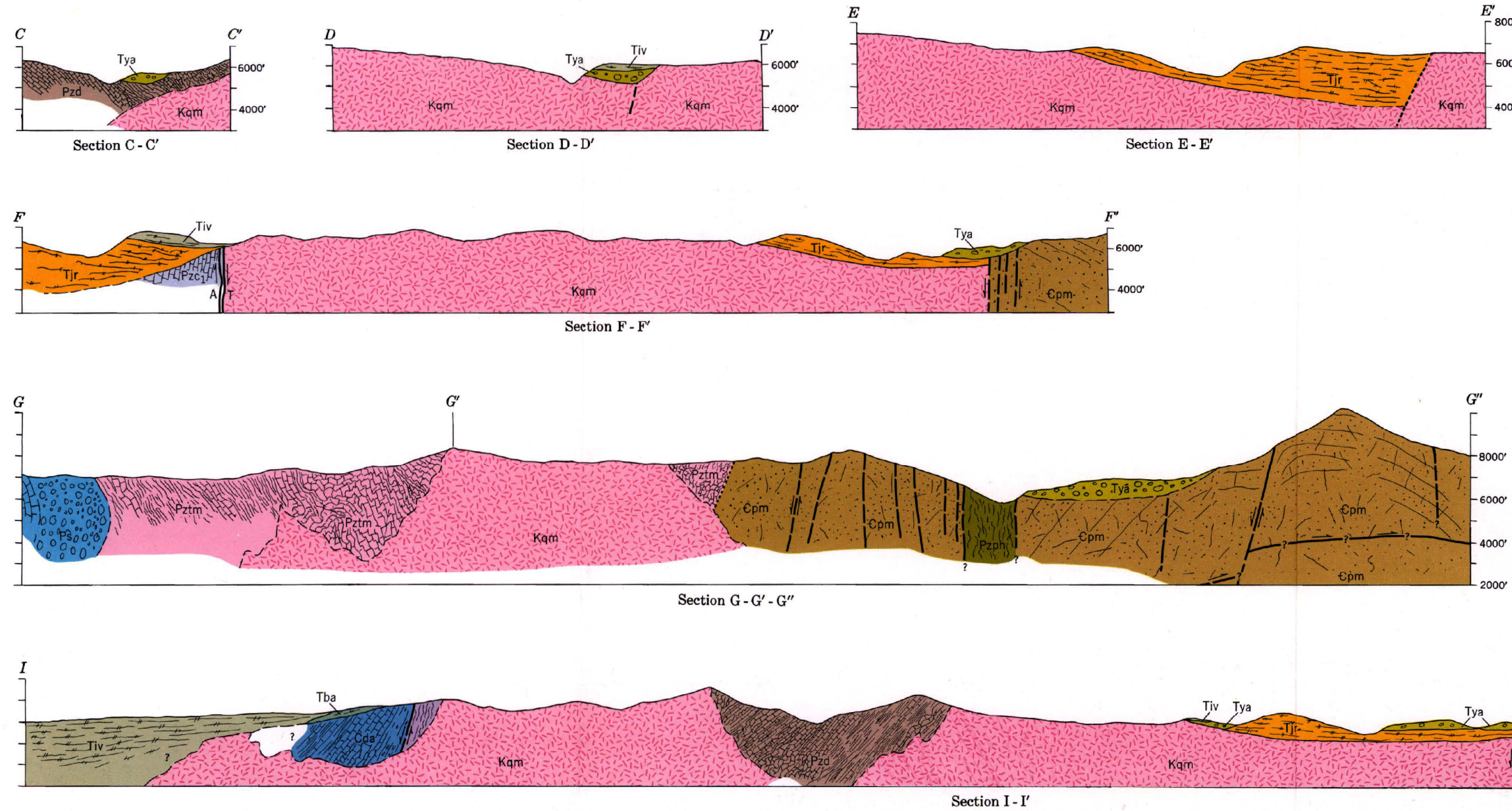
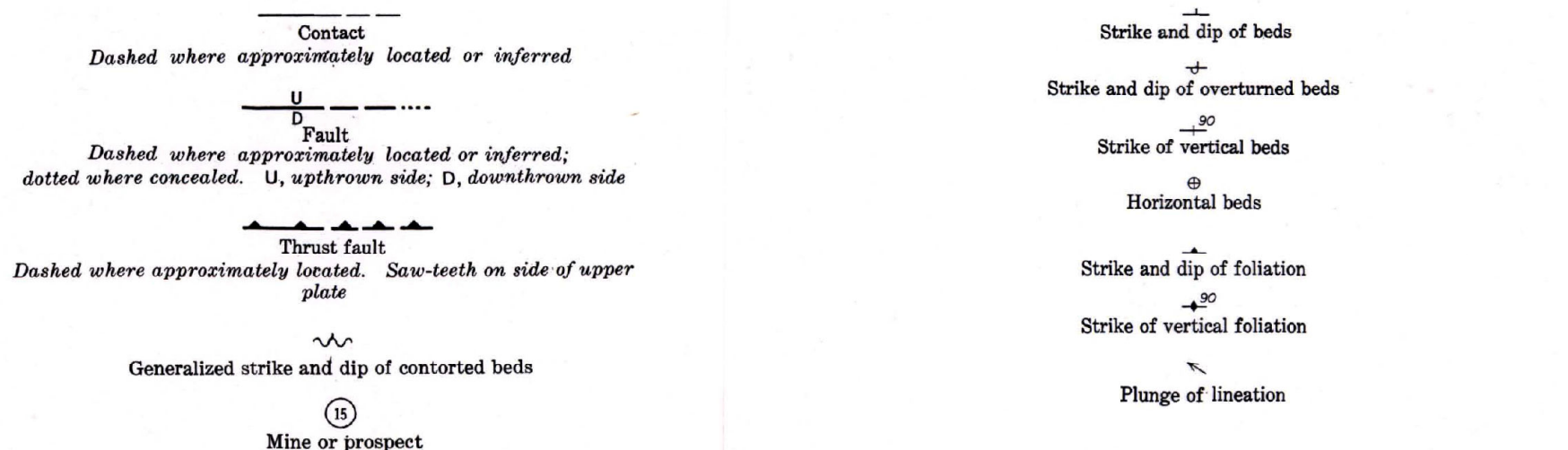


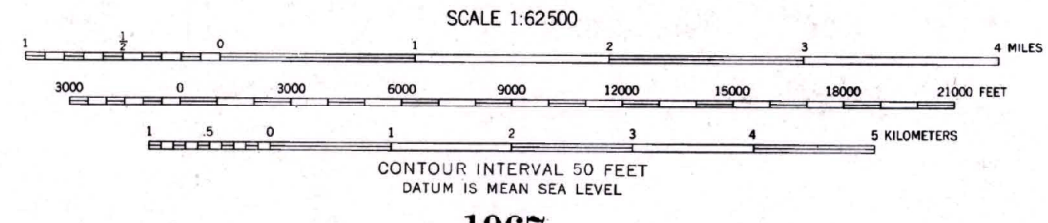
**EXPLANATION**

Ql Landslide deposits Debris formed by sliding and slumping of oversteepened slopes.	Qal Alluvium Stream-deposited sand and gravel.	Qbf Boulder fields Contains unsorted quartzite fragments as large as 10 feet in diameter.
Tiv Glacial moraine Present only on north and east sides of Copper Mountains.		
Iva Idavada Volcanics Lower portion mostly pyroclastics, upper portion mostly flows. Pyroclastics consist of ash, tuff, tuffaceous sediments, and welded and striae tuffs. Many flows are coarsely vesicular, crude jointing and sheeting common. Obsidian present at base of some flows.		
<b>LOCAL UNCONFORMITIES</b>		
Tya Young America Gravel Poorly sorted sands, and sub-rounded to rounded pebbles and cobbles of Prospect Mountain (?) quartzite, Jarvisburg rhyolite, and granite. Cobble sizes decrease northwestward.		
<b>LOCAL UNCONFORMITIES</b>		
Tjr Jarvisburg rhyolite Flows, with minor tuff, tuffaceous sediment, and agglomerate. The flows contain abundant phenocrysts, mostly quartz and minor feldspar, in microcrystalline and felsitic groundmass. Fresh surfaces light gray, weathered surfaces gray and red-orange. Sheeting and flow structure prevalent.		
Tba Bieroth andesite Glassy to microcrystalline, porphyritic flow rocks with some tuff and welded tuff. Small biotite phenocrysts abundant. Fresh surfaces light gray, weathered surfaces darker gray.		
<b>UNCONFORMITY</b>		
Kqm Quartz monzonite Light colored, generally coarse-grained porphyritic rocks. Cores of stock consists of adamellite, containing plagioclase (An <sub>10-15</sub> ), microcline, quartz, and some biotite. Deep Creek stock is more nearly granitic; orthoclase is present, microcline absent, plagioclase to An <sub>10-15</sub> .		

<b>SOUTHERN PART OF QUADRANGLE</b>	<b>NORTHERN PART OF QUADRANGLE</b>
Ps Sunflower Formation Includes an upper member of fossiliferous, thick-bedded, medium-gray, cherty limestone; and a lower chert and quartz-pebble conglomerate containing interbedded layers of light-colored quartzites.	Cda Diamond "A" Formation Light- to dark-gray, mostly crystalline, bedded limestone, with shale and hornfels members. Lenses of quartzite- and chert-pebble conglomerate near base.
<b>ANGULAR UNCONFORMITY</b>	
Pz1 Argillite and phyllite Pz1, Dark-colored argillite, phyllite, and hornfels. Black, medium-grained quartzite member near top, and limestone member near base.	Pz2 Pz2, Black, metamorphosed argillaceous rock similar to Pz1, but lacks quartzite member and includes greenstones, altered flow rocks, calc-schists.
Pz3 Pz3, Light- and dark-weathering phyllite with minor dark-colored chert.	Pz4 Schist and limestone Light green to gray calc-schist and massive, medium-gray limestone.
Pz5 Limestone Pz5, Yellowish, thin-bedded, aphanitic limestone with silty partings.	Pz6 Pz6, Light-gray, thin-bedded, aphanitic limestone.
Pz7 Limestone and argillite Upper part consists of light- to dark-gray, laminated to thin-bedded limestone. Lower part contains dense, slaty argillite and interbedded crystalline limestone; unit has been metamorphosed to hornfels, slates, facities near southern intrusive body.	



**GEOLOGIC MAP AND SECTIONS OF THE ROWLAND QUADRANGLE**  
 ELKO COUNTY, NEVADA  
 By Kent O. Bushnell



Geology mapped by Kent O. Bushnell, 1953-1954  
 Topographic base from U.S. Geological Survey Quadrangle 15' quadrangle, Idaho-Nevada, 1936.