

TRIUMF and Victoria

A historical Perspective

Construction of TRIUMF at Victoria

Recollections of T. Hodges

- The design and construction work for TRIUMF began in Victoria in 1969
 - 14 people in Victoria
 - Designed the beam line optics
 - Designed and built original meson production target
 - Designed and built the first temporary beam dump
- Special magnet design and field mapping facility
 - Beam line magnets

TRIUMF (1975-85)

Target Design Group

- Target design and production group
 - T. Hodges, R. Langstaff, P. Verstraaten
 - Internationally recognized experts in thermal calculations for heat load and mechanical stress
- Designed, built and tested all meson production targets and structures until 1995
- Designed, built and tested T1 beam dumps until present
- Provided full engineering drawings, documentation and support

TRIUMF - Victoria Activities

- Magnet group
 - P. Reeve, B. Henin, T. Gathright
 - B1 Septum design and construction
- Physics Programme
 - BASQUE Nucleon-Nucleon scattering exp'ts
 - Target group built liquid deuterium neutron production facility target
 - Mesic X-rays
 - Mike Pearce started and ran this group until his untimely death

TRIUMF (1985-1995)

Kaon Factory Era

- Design Team:
 - Designed, prototyped and tested ceramic beam pipes
 - Designed kaon production targets
 - Led to the TRIUMF-Victoria group designing the enhanced kaon production target used in the observation of $K \rightarrow \pi \nu \nu$
- Kaon Factory Definition Study Director
 - Astbury (commuting from Victoria)

TRIUMF (1995-2001)

Recent Years

- ISAC Target Modules
 - Initial thermal calculations for ISAC target
 - Designed dump module of ISAC target
- Designed, built and implemented the present TRIUMF T1 beam dump

TRIUMF-Victoria

Detector Design & Construction

- SLD Liquid Argon Calorimeter (Hodges)
 - Full mechanical design for U.W.-Caltech-TRIUMF contribution
 - Earthquake protection: seal-free supersonic hydraulic snubbers
- OPAL silicon vertex detector - Dr. A. Honma (now CERN staff)
- BaBar central drift chamber wire stringing - (Henderson)
- ATLAS-TRIUMF detector project
 - liquid argon hadronic endcap calorimeter design
 - ATLAS endcap cryostat high density feedthrough design
 - T. Hodges : Chief Engineer and member of the Cryostat and cryogenics steering committee of ATLAS

TRIUMF and Victoria

- Victoria provides a special machine shop
- Free access to department machine shop
- Large high quality lab space
 - T1 target construction area
 - Kaon factory ceramic beam pipe test facility
- Office space
- Computer support

Thirty years of successful collaboration
between TRIUMF engineers and Victoria
Physicists