TRIUMF

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CANADA'S NATIONAL LABORATORY
FOR PARTICLE AND NUCLEAR PHYSICS

OPERATED AS A JOINT VENTURE

MEMBERS:

THE UNIVERSITY OF ALBERTA
THE UNIVERSITY OF BRITISH COLUMBIA
CARLETON UNIVERSITY
SIMON FRASER UNIVERSITY
THE UNIVERSITY OF VICTORIA

ASSOCIATE MEMBERS:

THE UNIVERSITY OF MANITOBA
L'UNIVERSITÉ DE MONTRÉAL
QUEEN'S UNIVERSITY
THE UNIVERSITY OF REGINA
THE UNIVERSITY OF TORONTO

UNDER A CONTRIBUTION FROM THE
NATIONAL RESEARCH COUNCIL OF CANADA

OCTOBER 2001

The contributions on individual experiments in this report are outlines intended to demonstrate the extent of scientific activity at TRIUMF during the past year. The outlines are not publications and often contain preliminary results not intended, or not yet ready, for publication. Material from these reports should not be reproduced or quoted without permission from the authors.

ORGANIZATION

Board of Management

The Board of Management of TRIUMF manages the business of the facility and has equal representation from each of the four founding universities and Carleton University which has, in 2000, become a full member. At the end of 2000 the Board comprised:

University of Alberta	Dr. W.J. McDonald	
	Dr. A. Noujaim	
University of British Columbia	Dr. I. Samarasekera	
	Dr. B. Turrell	
Carleton University	Dr. F. Hamdullahpur	
	Dr. P.J.S. Watson	
Simon Fraser University	Dr. W.S. Davidson	
	Dr. C.H.W. Jones	Chairman
University of Victoria	Dr. V. Paetkau	
	Dr. M. Taylor	

Towards the end of 1987, Board membership was expanded in anticipation of a broadening of the TRIUMF joint venture to include a more national representation of Canadian universities long associated with the TRIUMF experimental program. The University of Manitoba and Université de Montréal became associate members, and the University of Toronto joined as an observer. At the end of 1988, University of Toronto status changed from that of observer to associate member. In March, 1989 the University of Regina became an associate member. In December, 1998 Carleton University and Queen's University became associate members. In March, 2000 Carleton University's status changed from that of associate member to full member. Associate membership at year-end:

Associate members:	Dr. W.T.H. van Oers	University of Manitoba	
	M G. Michaud	Université de Montréal	
	Dr. A.B. McDonald	Queen's University	
	Dr. K. Denford	University of Regina	
	Dr. P. Sinervo	University of Toronto	
Non-voting members:	Ms. J. Verrett	National Research Council	
	Dr. P. Sinervo	ACOT/University of Toronto	
	Dr. A. Astbury	Director, TRIUMF	
	Dr. J.-M. Poutissou	Associate Director, TRIUMF	
	Mr. J. Hanlon	TRIUMF	Recording Secretary

The following changes occurred in Board membership in 2000: Drs. P. Kitching (University of Alberta), R.G. Korteling (Simon Fraser University), and Ms. G. Gabel (University of Victoria) completed their terms. Dr. I. Samarasekera replaced Drs. D. Dolphin and L. Skarsgard as University of British Columbia member. Dr. W.T.H. van Oers replaced Dr. J. Keselman as University of Manitoba member. The Board met 5 times during the year.

Administration

Under the directorship of Dr. A. Astbury, TRIUMF personnel were grouped into divisions, with division heads as follows:

Division Head, Science Division	J.-M. Poutissou
Division Head, Accelerator Technology Division	E.W. Blackmore
Division Head, Cyclotron Operations Division	G. Dutto
Division Head, Technology Transfer Division	P.L. Gardner
Division Head, ISAC	P.W. Schmor
Division Head, Administration Division	A. Astbury

Operating Committee

The TRIUMF Operating Committee is responsible for the operation of the facility. It reports to the Board of Management through its chairman, the Director, Dr. A. Astbury. The Operating Committee consists of one voting member from each of the five universities, two voting members representing the interests of the Users, and one representing TRIUMF staff. The Associate Director is a non-voting member. Members of the committee (alternate members in parentheses) at the end of 2000 were:

Dr. A. Astbury	Chairman	Director	
Dr. J.-M. Poutissou	*(ex officio)*	Associate Director	
Dr. N. Rodning		University of Alberta	(Dr. L.G. Greeniaus)
Dr. G. Oakham		Carleton University	(Dr. D. Karlen)
Dr. P. Percival		Simon Fraser University	(Dr. K.P. Jackson)
Dr. R. Keeler		University of Victoria	(Dr. M. Roney)
Dr. C. Hearty		University of British Columbia	(Dr. M.D. Hasinoff)
Dr. E. Mathie		Users	(Dr. G. Luke)
Dr. G. Marshall		Users	(Dr. S. Yen)
Mr. K. Reiniger		TRIUMF	(Mr. R. Baartman)
Mr. J. Hanlon	Recording Secretary	TRIUMF	
Ms. J. Verrett	*(ex officio)*	National Research Council	

Changes in 2000: Dr. G. Luke replaced Dr. J. Waddington as alternate for Dr. E. Mathie. Dr. G. Marshall replaced Dr. J. Vincent as one of the Users members, with Dr. S. Yen as alternate. Mr. K. Reiniger replaced Dr. T.J. Ruth as TRIUMF member, with Mr. R. Baartman as alternate. The Operating Committee met 11 times in 2000.

NRC Advisory Committee on TRIUMF

Dr. P. Sinervo	Chairman	University of Toronto
Dr. D. Santry	Secretary	National Research Council
Dr. A.J. Berlinsky		McMaster University
Dr. R. Boyd		Ohio State University
Dr. A. Fenster		J.P. Robarts Research Institute
Dr. J. Guigné		Guigné International Ltd.
Dr. P.-G. Hansen		Michigan State University
Dr. G. Kalmus		Rutherford Appleton Lab
Prof. V. Soergel		Werner-Heisenberg-Institut
Dr. R. Taylor		SLAC
Dr. P. Vincett		FairCopy Services Inc.
Dr. R. Carnegie	*(ex officio)*	Carleton University
Dr. C.H.W. Jones	*(ex officio)*	Simon Fraser University
Dr. R. Keeler	*(ex officio)*	University of Victoria

Changes in 2000: Dr. R. Keeler replaced Dr. P. Kalyniak.

Agency Committee on TRIUMF

Dr. A.J. Carty	Chairman	President, National Research Council
Dr. T. Brzustowski		President, Natural Sciences and Engineering Research Council
Ms. M. Tobin		Director General, Innovation Policy Branch, Industry Canada
Mr. M. Moffat		Director, Knowledge Infrastructure, Industry Canada
Mr. N. Lloyd		Director General, Research Grants & Scholarships, NSERC
Ms. J. Verrett	Secretary	National Research Council

Changes in 2000: Mr. K. Lynch and Ms. O. Lennie retired from the committee; Ms. M. Tobin, Mr. M. Moffat and Mr. N. Lloyd joined the committee.

TRIUMF Safety Management Committee

Dr. A. Astbury		Director, TRIUMF
Dr. J.-M. Poutissou		Associate Director/Head, Science Division
Dr. E.W. Blackmore		Head, Accelerator Technology Division
Dr. G. Dutto		Head, Cyclotron Operations Division
Mr. P.L. Gardner		Head, Technology Transfer Division
Dr. P.W. Schmor		Head, ISAC Division
Mr. M. Stenning		Head, Operations Group
Dr. M. Adam		TAPC Chairman
Mr. G. Wood		Industrial Safety Officer/TAPC
Mr. L. Moritz		Head, Environmental Health & Safety
Mr. J. Hanlon		Manager, Human Resources & Administrative Services
Dr. S. Zeisler		Head, Applied Technology Group
Mrs. K. Gildert	Recording Secretary	

Experiments Evaluation Committee

Subatomic Committee:

Dr. I.S. Towner	Chairman	Queen's University
Dr. J.-M. Poutissou	Associate Director/*(ex officio)*	TRIUMF
Dr. H. Fearing	Secretary	TRIUMF
Dr. J.M. D'Auria		TUEC Past Chairman/SFU
Dr. W.C. Haxton		University of Washington
Dr. K. Langanke		Aarhus University
Dr. H.O. Meyer		Indiana University
Dr. A. Richter		Technische Universität Darmstadt
Dr. M.C.T. Wiescher		University of Notre Dame

Materials Science Committee:

Dr. I.K. Affleck	Chairman	University of British Columbia
Dr. J.-M. Poutissou	Associate Director/*(ex officio)*	TRIUMF
Dr. P.W. Percival	Secretary/*(ex officio)*	SFU/TRIUMF
Dr. J.H. Brewer		TUEC Chairman/UBC
Dr. S.F.J. Cox		Rutherford Appleton Laboratory
Dr. B. Gaulin		McMaster University
Dr. S. Roorda		Université de Montréal
Dr. G.A. Sawatzky		University of Groningen
Dr. R.E. Wasylishen		University of Alberta

In July, 1994 the Experiments Evaluation Committee was formally split into two committees representing subatomic physics and μSR physics. In 2000 the μSR Committee changed its name to the Materials Science Committee. Changes in membership during the year: on the Subatomic Committee, Dr. I.S. Towner replaced Dr. K. Langanke as chairman and Dr. J.M. D'Auria replaced Dr. L. Buchmann as TUEC past chairman. On the Materials Science Committee, Dr. I.K. Affleck replaced Dr. M. Thewalt as chairman, Dr. J.H. Brewer joined as TUEC chairman, Dr. D.K. Bohme completed his term; the committee welcomed Drs. S.F.J. Cox and G.A. Sawatzky.

Life Sciences Project Evaluation Committee

Dr. T. Lewellen	Chairman	University of Washington
Dr. J.-M. Poutissou	Associate Director	TRIUMF
Dr. L.P. Robertson	Secretary	University of Victoria
Dr. R. Finn		Memorial Sloan-Kettering Cancer Center
Dr. D.C. Price		University of California, San Francisco
Dr. R.L. Wahl		University of Michigan
Dr. A. Fenster		J.P. Robarts Research Institute
Dr. J.E. van Lier		Université de Sherbrooke

Changes in 2000: Drs. D.A. Axen and J. Fowler completed their terms. The committee welcomed Drs. A. Fenster and J.E. van Lier.