



**DEVELOPMENT OF GAS MICRO-STRIP CHAMBERS
FOR RADIATION DETECTION AND TRACKING AT HIGH RATES**

R. Bouclier, C. Garabatos, J. Gaudaen, *T. Meyer*, J.J. Florent, *M. Price*, L. Ropelewski and F. Sauli*
(CERN, Geneva, Switzerland)

M. S. Dixit and G. K. Oakham
(CRPP, Carleton University, Ottawa, Canada)

Ph. Mangeot
(DPhPE, CEN Saclay, France)

A.E. Bondar, V.R. Groshev, G.D. Minakov, A.P. Onuchin, Yu.N. Pestov, L.I. Shekhtman and
V.A. Sidorov
(INP, Budker Institute of Nuclear Physics, Novosibirsk, Russia)

E. Kladiva, M. Javorek, K. Safarik and L. Sandor
(Inst. of Exp. Physics, Czechoslovak Academy of Sciences, Kosice, Czechoslovakia)

J. Böhm, S. Němeček, S. Smižanská, B. Sopko and P. Zavada
(Institute of Physics, Czechoslovak Academy of Sciences, Prague, Czechoslovakia)

S. Møller, G. Sorensen and E. Uggerhøj
(ISA, Institute for Synchrotron Radiation, Aarhus, Denmark)

P. Dalpiaz, G. Della Mea and V. Rigato
(Laboratori Nazionali INFN Legnaro, Italy)

S. Brons, W. Brückner, M. Godbersen, M. Heidrich, S. Paul, A. Trombini and R. Werding
(MPI, Max-Planck Inst. für Kernphysik, Heidelberg, Germany)

K. Bos, C. Daum, F. Hartjes, J. Schmitz and F. Udo
(NIKHEF, Amsterdam, The Netherlands)

S.J. Biagi, P.S.L. Booth, T. Bowcock, N.A. Smith, J.N. Jackson and T. Jones
(Physics Dept. Liverpool University, Liverpool, England)

J.A. Armitage, D. Karlen and G. Stewart
(Physics Dept., Carleton University, Ottawa, Canada)

E.F. Barasch, P. McIntyre, Y. Pang and H.J. Trost
(Physics Dept, Texas A&M University, College Station, USA)

J. Connolly, M. Edwards, P. Seller, G. Tappern and J.C. Thompson
(RAL, Rutherford Appleton Laboratory, Chilton, Didcot, England)

M. Salomon
(TRIUMF, Vancouver, Canada)

A. Breskin, R. Chechik and A. Panski
(Weizmann Institute of Sciences, Rehovot, Israel)

Authors and institutions in italics have joined the proposal after submission to the DRDC.

* Spokesman

C
CERN
BIBLIOTHEQUE
SCP
CERN-DRDC
92-34

MANPOWER AND BUDGET ESTIMATES

This addendum summarizes the manpower and financial commitments foreseen by contributing institutions specifically for the research on GMSC for P-41, over the duration of the project. In many cases use of existing local technical support and equipment is not included. In some cases a request to the local funding agencies is on the way, and the outcome may be conditioned by the approval of the present proposal. The request to CERN is included in the proposal and discussed there in detail. Whenever possible, manpower estimates are given in Full Time Equivalent (FTE). Missing institutions have not provided yet the informations.

CRPP and Physics Dept. Carleton University

Manpower: 1 FTE physicist, 0.2 FTE electronics engineer, plus technical support (technical and general fabrication facilities).

Budget for year 1: 85 K\$ plus industry contribution (from Hawker Sidley) estd. 30 k\$

Budget for year 2: 110 K\$

INP Novosibirsk

Manpower: 2 FTE physicists, 0.5 FTE mechanical engineer and 0.3 FTE electronics engineer. Extended local facilities.

Budget for year 1: Construction of 6 medium-size GMSC on semiconducting glass (estd. value 1 K\$ each) and several prototypes on plastic foils. Total equivalent investment 10 K\$.

Budget for year 2: Construction of 15-20 GMSC, for an equivalent investment of 30 K\$. Chambers will be provided to participating institutions.

Inst. of Physics Czechoslovak Academy of Sciences Kosice and Prague

Manpower: 9 physicists (part time). Extended local technical support. Contacts with industry.

Budget: About 10 K\$ per year directly invested in GMSC development. A separate budget will be established for construction of a GMSC system for WA97.

Laboratori Nazionali INFN Legnaro

Manpower: Three physicists part time, technical support.

Budget: A request to INFN has been made for 150 MLire for 1993, with a continuation for two more years.

MPI Heidelberg

Manpower: 1.4 FTE physicists. Technical support at MPI.

Budget: 50 KSF for the initial part of the project. To be revised according to results and needs by WA89.

NIKHEF Amsterdam

Manpower: 2 FTE Physicists

Budget: 150 KSF already devoted to the GMSC research for this year. Budget for next year unknown.

Phys. Dept. Liverpool University

Manpower: For the initial period: 3 FTE physicists, 0.5 FTE electronics engineer, 1.5 FTE mechanical engineer. Increased towards year 2 by 1 FTE physicist, 1 FTE electronics engineer and 1 or 2 students.

Budget: 120 KSF for two years (from SERC). Some of this already spent.

Physics Dept. Texas A&M University

Manpower: 3 FTE presently, 4.5 FTE this summer.
Budget estimate for year 1: 180 K\$ (partly already committed)

Rutherford Appleton Lab. Chilton

Manpower: 5 FTE physicists and electronics engineers
Budget: unknown at present time

Weizmann Institute of Sciences

Manpower: 0.4 FTE physicists, 0.2 FTE technician, one full time student.
Budget: about 25 K\$ per year, partly devoted to development of medical applications of GMSC.

SUMMARY OF MANPOWER AND BUDGET ESTIMATES

In the table, all figures correspond to manpower and budget already secured for the research project on GMSC. All budget estimates in KSF. Blanks correspond to positions for which the information was not available at the present day.

INSTITUTION	FTE Physicists	FTE Engineers	Budget 1992-93	Budget 1993-94
CERN	6	4	335	340
CRPP and Phys.Dept. Carleton	1	0.2	170	160
DPhPE Saclay	1	1		
INP Novosibirsk	2	0.8	15	45
Inst.Phys. CAS Kosice and Prague	2		15	15
ISA Aarhus	1	1		
LN INFN Legnaro	1	0.5	176	176
MPI Heidelberg	1.4	1	50	
NIKHEF Amsterdam	2	2	150	
Phys.Dept. Liverpool	3.5	2.5	60	60
Phys.Dept. Texas A&M	3.5		260	
RAL Chilton	4	1		
TRIUMF Vancouver	0.2			
Weizmann Inst. Rehovot	0.4	0.2	36	36
TOTALS	29	14.2	1267 KSF	832 KSF

