

PROTON IRRADIATION FACILITY – STATUS REPORT

Wojtek Hajdas, Roger Brun – PSI LAP

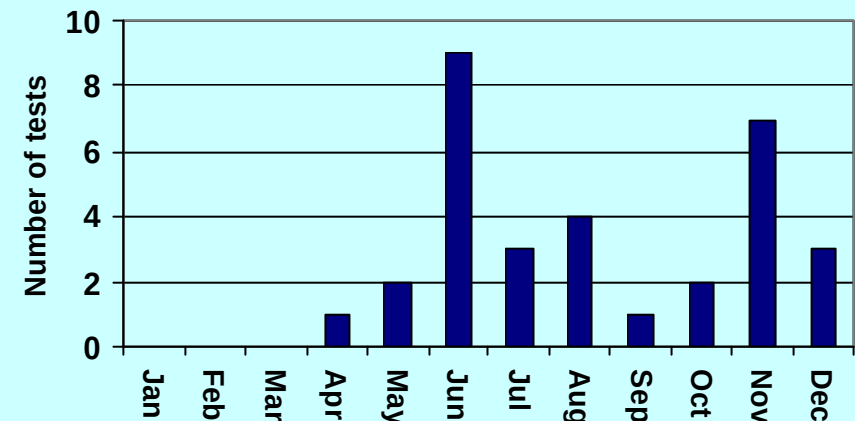
Outline

- Operation Statistics 2002/2003
- Users and Tests Highlights
- Recent Upgrades
- PROSCAN Cyclotron Status
- Summary

OPERATION STATISTICS - 2002

- Irradiation period: April – December
- Researches from about 25 groups
- Exposures arranged into 19 blocks
- About 34 different tests performed
- Beam utilization over about 37 days

PIF experiments in 2002



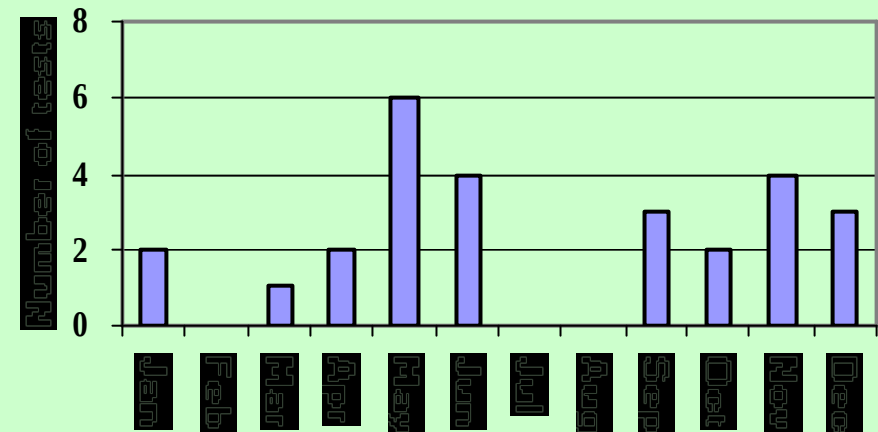
Beam Time and Test Area Utilization

Area	NA3	NEB	Total
Test Block	12	7	19
Shifts	28	18	46

OPERATION STATISTICS - 2003

- Irradiation period: January–December
- Researches from about 25 groups
- Exposures arranged into 23 blocks
- About 27 different tests performed
- Beam utilization over about 44 days

PIF experiments in 2003



Beam Time and Test Area Utilization

Area	NA3	NEB	Total
Test Block	7	16	23
Shifts	18	41	59

USERS HIGHLIGHTS

2002

No	Research Institution
1	ESA / ESTEC, The Netherlands
2	PSI / LAP (optimising)
3	PSI / PROSCAN (Radiation Medicine)
4	ETH, Zürich, CH
5	Contraves Space, Zürich, CH
6	CERN, Genf (several related groups)
7	HIREX, France
8	OHB-Systems, Germany
9	ASTRIUM, Germany and France (3x)
10	Marconi Applied Technologies, UK
11	SIRA Opto-electronics, UK
12	Max Plank Institute, Germany
13	E2V Technologies, UK
14	ABB Semiconductors, CH
15	TRAD, France
16	CNES, France

2003

No	Research Institution
1	ESA / ESTEC, The Netherlands
2	PSI / TEM
3	PSI / PROSCAN
4	Uni Zürich, CH
5	CERN, Genf, CH
6	Thales, Orsay, France
7	NMRC, Kork, Irland
8	INFN, Roma, Italy
9	Lab de Physique, Aubiers, France
10	Shlomit Tarem, Israel
11	ABB, Lenzburg, CH
12	E2V, Chelmsford, UK
13	Verhaart, Kruibeke, Belgium
14	Astrium, Toulouse, France
15	Inst of Phys. Moscow/Russia (for CERN)
16	Alenia Spazio, Torino, Italy

EXPERIMENTS HIGHLIGHTS

Year 2002

- ISS Network Components
- CCD and APS
- Opto-Components
- SREM Monitor

Year 2003

- CERN LHC Electronics
- PROSCAN Components
Beam Profile Monitor
Degrader Activation
- CCD and Opto-devices cont.
- New Spacecraft Materials

RECENT UPGRADES

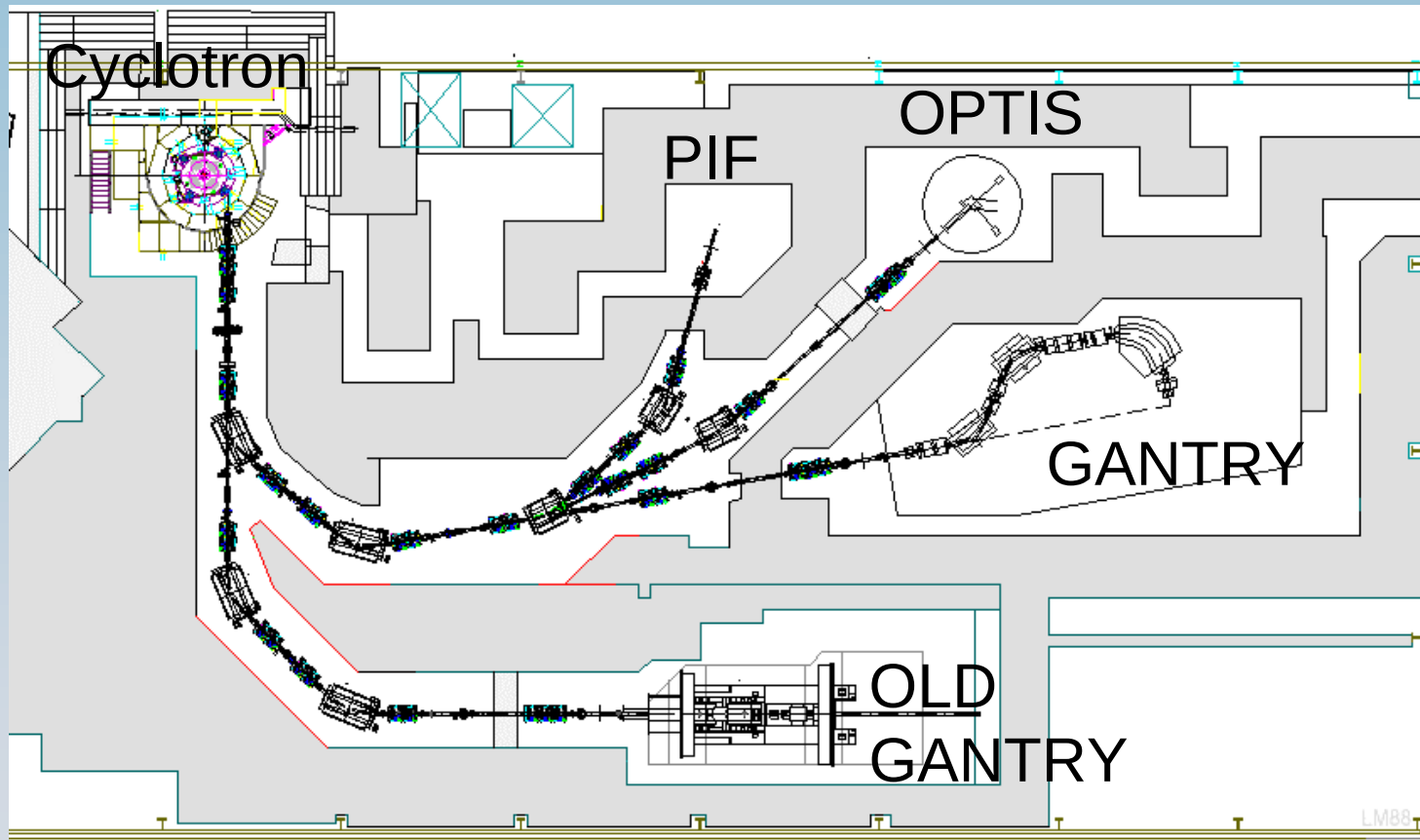


- Replacement of Power Supplies for Ionization Chambers (RC)
- Set of New Collimators and new Holders for both PIFs

- Identical XY-table HW/SW for Low and High-energy PIF
- PIF NEB shorter cables (20m); Barrack moved closer

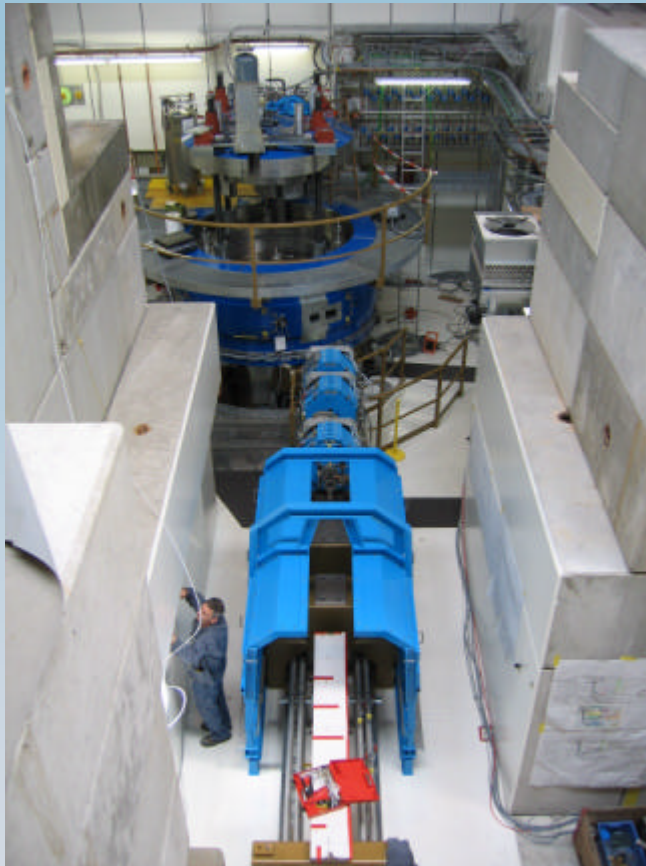


PROSCAN EXPERIMENTAL SITES



Status 15.03.04

PROSCAN CONSTRUCTION



Cyclotron and part of
Beamline to Degrader



Therapy Building

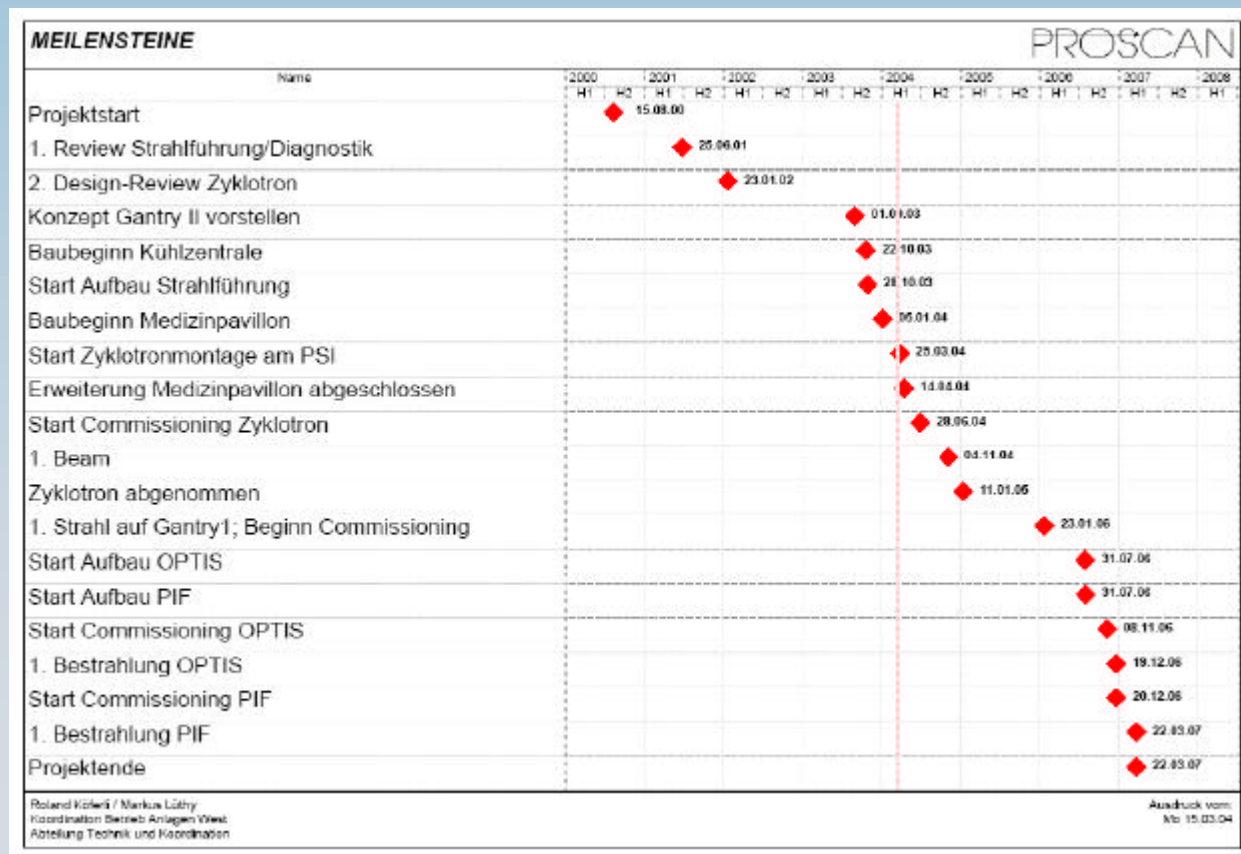


Future PIF Area

PROSCAN CYCLOTRON STATUS

Moving to the test area – Summer 2005

PIF area normal operation – March 2007



SUMMARY

- PIF operates using both – low and high energy site
- There are about 20 test blocks/year and 40 beam days
- Low energy facility is used more frequently (Jan-Dec)
- User community is very broad (space, HE Physics etc.)
- Both facilities are continuously upgraded
- PROSCAN test area with PIF site from summer 2005
- New PIF facility commissioning begins Nov 2006
- PIF PROSCAN operation from Mar 2007