## NEWS

## Season 2004

Date & Time	Туре	Description of event
10/9/2004 11:29:13 AM	magnet	Magnet at 232 KJaakko
10/6/2004 2:47:51 PM	magnet	Magnet at 100 K today noonJaakko
10/5/2004 1:02:01 PM	general	Target material unloading 08:00 - 14:00Jaakko
10/4/2004 10:06:53 AM	refrigerator	Started to remove 3He/4He mixture at 9:30Jaakko
10/1/2004 2:25:35 PM	polarization	Polarization was lost at 14:15 due to loss of demineralized cooling waterJaakko
9/29/2004 11:47:20 PM	polarization	Go to frozen spin mode for the nightJaakko
9/28/2004 11:20:22 AM	microwave	Restart polarization from -50.73 % upstream and +51.17 % downstream after field rotationJaakko
9/28/2004 10:15:27 AM	magnet	SUN magnet program restarted at 9:40 due to problems in setting currentJaakko
9/24/2004 1:30:39 PM	polarization	Polarization reversed by microwave this morning. 7:45 Set field zero to brake polarization. 8:30 Set field back to 2.5 T. 9:00 Start polarization.
9/24/2004 12:17:57 PM	polarization	Microwave polarization reversal was started today morning at 8:30Jaakko
9/6/2004 1:04:13 PM	general	Platform re-enforcement was done this morning. During the work isolation vacuum pumps stopped. Dipole PSU was ramped up to save polarization. Fuse in the isolation vacuum pump box was changed and normal operation was recoveredJaakko
9/6/2004 8:59:14 AM	polarization	Polarization measured after transverse run at 7:30 +46.83 % upstream and -40.96 % downstreamJaakko
9/6/2004 8:55:37 AM	microwave	Started to increase polarization with microwavesJaakko
9/2/2004 12:07:19 PM	polarization	Microwaves stopped at 11:30 H. Polarization obtained is $P_up = 49.91$ and $P_down = -42.76$ . Transverse running will start as soon as the beam is available Gunter
8/31/2004 3:30:53 PM	polarization	Polarization reversal by microwaves to P_up positive and P_down negative started at 12:30 H Gunter
8/31/2004 10:30:05 AM	polarization	After finishing the middle part of transversity running the polarization has been measured: P_up = - 43.63 %, P_down = 42.42 %. Gunter (WTC)
8/25/2004 11:04:13 AM	polarization	MD from 8:00 to 16:00. Polarization build up continued before going to transverse mode again. At 11:00, Pup = -45.69% and Pdwn = 46.48% _Jacques
8/23/2004 8:32:05 PM	polarization	At 20:00 the beam was started again. Polarization build up was stopped . Pup = -46.15% Pdwn = 47.42 % _Jacques

8/22/2004 11:16:35 PM	polarization	At 20:00, beam was stopped. Polarization build up was resumed at 20:38. At 23:00 we have Pup = -39.61% Pdwn = 40.62%Jacques
8/21/2004 12:23:52 AM	polarization	Polarization building-up stopped at midnight due to good results of Kaori and Susuke. As there will be a beam interruption on Sunday for 24 hours, polarization building up will be resumed then. Pup = - 38.98 Pdwn = 40.73 Jacques_
8/20/2004 6:21:56 PM	polarization	At 6 PM, Pup = -34.28 % and Pdwn = +36.52 %. Building up will continue until noon tomorrow. Jacques_
8/20/2004 5:02:57 AM	polarization	Friday, 5pm. The problem was a shutdown of all water pumps in Hall next to 888 (demineralized and water for diffusion pump). The switch over to spare pumps did not work, everything is restarted now, but experts will investigate tomorrow what was the exact cause of the failure. 4pm: we restart target polarization. C. Marchand, N. Doshita
8/20/2004 2:21:00 AM	polarization	Friday 20, 1am: we lost polarization because of loss of demineralized water. The pumps in Hall next to 888 are stopped, piquet working on it. More news to come. C. Marchand & N. Doshita
8/13/2004 3:44:51 PM	general	13.Aug.2004, 15:09, Pol(up)=+50.70,Pol(down)=-43.52, magnet operated to TRANSEVERSE mode, dipole current set at 550A T.Iwata
8/13/2004 4:45:09 AM	polarization	Pol(up)=50.07;Pol(down)=-42.80, VERY DIFFICULT to improve Pol(down). It is recommended that trim coil setting is investigated. 13.Aug.2004, 4;44 T.Iwata
8/12/2004 10:24:04 AM	polarization	P(up);+46.5%, P(down)=-39.3%, obtained in 21 hours during MD 12.Aug.2004, T.Iwata
8/11/2004 12:07:32 PM	general	11.Aug.2004. 10;00 Machine developement start sol.mag -417A>0A>+417A start microwave at 11:51 to have opposit config. of Polarization as P(up);+ P(down);- T.Iwata
8/8/2004 5:23:39 PM	NMR	Temp. at NMR rack exceeded 28 deg. which is the upper limit for the alarm in the slow control. Almost everyday, it exceeeds the value. We cannged the upper limit to 28.5 deg. 8.Aug.2004, 17:20 T.Iwata
8/8/2004 11:27:37 AM	microwave	11:00 am, 8.aug.2004 EIO-PSs have been turned off for frozen mode until next MD(Aug.10) T.Iwata
8/8/2004 1:13:52 AM	polarization	Polarization Up=-50.18, Dwn=+52.63, microwave stop during night shift for safety, T.Iwata
8/7/2004 8:41:58 AM	polarization	Pol. Up=-49.80, Dwn=+51.92, in DNP 7.Aug.2004, T.Iwata
8/5/2004 6:33:29 PM	general	Polarization -47.9 % upstream and +50.1 % downstream. Micro power failure stopped the magnet system at 18:10. System recovered after restarting Sun and VME crateJaakko
8/3/2004 4:30:11 PM	polarization	Polarization -39.4 % upstream and +41.1 % downstreamJaakko
8/2/2004 6:12:05 PM	polarization	Polarization restartedJaakko
8/2/2004 11:55:46 AM	polarization	Polarization was lost due to pressure drop in demineralized cooling water. Waiting for stable water conditions before repolarizing Jaakko
8/2/2004	magnet	Ramp up solenoid back to nominal field -417 A. Polarization: -50.34 % upstream and +53.24 % downstream. No loss in polarization from

9:54:31 AM		yesterday - the measured values are still the sameJaakko
8/1/2004 4:18:27 PM	general	Big demineralized water leak in SM2. Target solenoid ramped down to -100 A for safetyJaakko
7/19/2004 10:05:59 PM	general	The beam stopped around 7:30 in this morning. We measured the relaxation time with 0.1 T during morning and restarted polarizing with same spin configuration at 15:00. The polarizations are -44.1% in the upstream and +48.9% in the downstream at 22:00. No beam until thursday at least. Nori
7/16/2004 2:04:47 PM	magnet	One of the relay for switching trim coil polarity was burnt. It was repaired.14:00 15 Jul. Kaori
7/3/2004 6:45:19 PM	NMR	We had to restart NMR Labview because of crash of OLE 04/07/03 18h C. Marchand.
6/27/2004 4:32:00 PM	general	First field rotation was done at 10:10 today morning with polarizattion of -51.0% (upstream) and +53.0% (downstream). by Nori
6/25/2004 12:44:58 PM	polarization	P(upstream)=-46.30% - P(downstream)=+51.27% Jacques_
6/23/2004 3:52:11 PM	general	Water leak on the NMR rack cooling system. A hose had to be changed. Jacques_
6/23/2004 11:31:11 AM	microwave	Yesterday we started to resume the polarization build-up around 5 PM. Since the start we noticed that the upstream cell lacked of microwave power. After some investigation it turned out that the Inpatt diode was not delivering its nominal power. We swapped the inpatt diode for the EIO tube. Investigation on the status of the diode will be done. At 11:30, P(upstream) = -37.75% P(downstream) = + 47.91% Jacques_
6/21/2004 6:10:40 PM	polarization	Configuration for polarization to start tomorrow will be upstream - and downstream + , according to Spokespersons recommendations. Jacques_
6/21/2004 5:23:47 PM	polarization	Relaxation time studies today, polarization building up will start again tomorrow morning. Jacques_
6/21/2004 11:29:59 AM	general	11:25 - the UPS APC went into alarm. We stopped it and switched it on again three times before it "worked" again. Necessary to restart FVC578 and reboot VME crate as communications were lost. _Jacques
6/20/2004 6:27:00 PM	polarization	Update at 17:30 upstream $P = -44.25$ %, downstream $P = +50.15$ % (sorry for the typo on the signs of P in the previous messsage) Jacques_
6/20/2004 8:51:02 AM	polarization	8:00 Sunday morning, June 20, upstream $P = -43.82$ % and downstram $P = -49.40$ %. We will keep on polarizing until next morning. Jacques_
6/20/2004 12:24:51 AM	software	Communication between SUN term. and pccodt30 was lost around 23:30 on 19/06/04. Re-established around midnight. Jacques_
6/18/2004 3:56:35 PM	NMR	NMR rack temperature touches on the higher limit of 27 C every day due to hot weather condition. The limit temperature had better increase a little. by Nori
6/17/2004 6:14:05 PM	polarization	The polarization are -32.8% in the upstream with the impatt microwave system and +31.5% in the downstream at 18:10. by Nori
6/16/2004 6:41:47 PM	polarization	18:30 ; just started polarizing with negative (positive) polarization in the upstream (downstream) in order to check the new impatt diode microwave system firstly. The configuration of the polarization for

		the physics run will be decided until June 21th (Monday). by Nori
6/16/2004 10:16:53 AM	refrigerator	Started to condense 3He/4He mixtureJaakko
6/15/2004 3:22:00 PM	general	First check of new impatt diode for the microwave system was done yesterday. The NMR TE data taken from last week was analyzed by Kaori. The result was fine. We have started to remove 4He from MC at 15:00. by Nori
6/14/2004 10:50:47 AM	NMR	We changed the MC temerature from 0.97K to 1.31K on Saturday 16:00 for TE calibration and have just finished TE calib. at 10:30 on Monday with good data. by Nori
6/11/2004 7:13:55 AM	magnet	This morning ~5:00 problem with trim coils current leads helium flow. Necessity to open the main contactor (so, to stop the solenoid) to reset the default. TE calibration restarted at 7:00 Fabrice
6/10/2004 4:58:52 PM	refrigerator	New problem today from the pump room climatizer. System automatically stopped at 13:45 from the circuit breaker for security, probably due to a peak of intensity. System restarted at 14:00. Circuit checked by technician, nothing wrong discovered. Pumps not affected TE calibration still going on Fabrice
6/9/2004 8:20:11 PM	refrigerator	Problem of the pump room air conditionning fixed at 19:30. After many tentatives from the technician, a valve on the gas expander was found blocked. Pumps 1 and 4 restarted at 20:15. 4He condensation mode restarted. Pump room temperature slowly back to the normal situation. TE calibration started Fabrice
6/9/2004 3:50:55 PM	refrigerator	Problem in pump room climatization. Temperature rised above +23 CJaakko
6/9/2004 11:03:52 AM	refrigerator	Started to condense 4He from 9:30Jaakko
6/8/2004 10:40:42 PM	refrigerator	Removing 3He/4He mixture from dilution cryostatJaakko
6/8/2004 6:12:56 AM	general	The mixed cooling water was recovered at 5:30. Vacuum diffusion pump was restarted. Magnet back to nominal field 2.506 T with polarization +54.67 % for upstream and -48.13 % for downstream Jaakko
6/8/2004 3:29:57 AM	general	Vacuum diffusion pump went off at 2:25 during field rotation due to loss of mixed cooling water in the area. Magnet ramped down to +100 A for more safe operationJaakko
6/6/2004 4:37:24 PM	magnet	Yesterday ~15:00 No current delivered for trim coil #11 but PSU was OK. Problem came from the relay box. Problem solved in ~ 1hour by removing and reinstalling the same relay Fabrice
6/3/2004 4:50:38 PM	polarization	We were polarizing from 23:20 1 June to 2:00 3 June. Polarization increased: upstream 54.73 % -> 55.53 %, downstream -48.07 % -> - 48.62 %. Now we have come back to frozen mode again. (WTC Kaori)
5/25/2004	power	24 May 2004 22:00 Yuri wrote: The total power cut in the PT and spectrometer control rooms. The smoke detector system was activated itself and fierman came soon. Nori was on the shift and he restarted all of the system. Magnet and the pumps were not affected, MW were switched off by the well operated interlock. Software was restarted in short while. Kaori restarted NMR. Unfortunately, we could not restart the temperature measurements of the pumps by unknown reason. Last year it was the same situation with the pump

1:15:17 AM		temperature control. There is a strange offset for all of pump temperatures. The laser infrared termometer shows the normal temperatures of these pumps but pump-20 which temperature was about 54 C near to the sensor. Its motor nevertherless had about 38 C normal temperature. The final polarization 55.2 % (upstream) and - 48.5 % (downstream). We started the frozen mode operation. Speer UP 40.7 kOhm(about 60 mK), 2.5 T field. The cooling water and the pressures are O.K. Regards, we all from the PT-control room.
5/24/2004 6:54:41 AM	polarization	+54.5 % upstream and -47.5 % downstream polarizations have been reachedJaakko
5/19/2004 8:33:38 PM	polarization	The polarization of the downstream cell was difficult to improve in the morning. Investigations showed a bad homogeneity of the magnetic field coming from an unstable trim coil power supply. Drift corrected. In addition, we discovered during a short access in the afternoon that the valves of primary water line for the cooling NMR lines and rack were closed. When reopened, the measurements came back to a "normal" situation. At 8:30 PM Upstream:+36.8%, Downstream: -33.4%. Polarization still going on - Fabrice
5/19/2004 9:38:29 AM	polarization	Polarization still going on. Upstream:+32.4% Downstream:-31.3% at 9:30 AM Fabrice
5/18/2004 9:04:29 AM	refrigerator	All the He3 sent back in the refrigerator. MX chamber around 50 mK at 8:00AM. Polarization process started at 9:00AM - Fabrice
5/17/2004 6:50:25 PM	refrigerator	The second analysis showed a clean helium gas. Cooling restarted Fabrice
5/17/2004 9:24:53 AM	refrigerator	Yesterday the MX chamber warmed up at 80K. Substancial amount of N2 and O2 found in the trap. Trap cleaned and He4 circulation restarted yesterday around 7:00PM. Difference of pressure between still (5.0E-3) and roots inlet (1.8E-3) seems to be now very small. The trap will be warmed up again today for a new analysis of the gas. If everything OK, we will restart the coolingFabrice
5/14/2004 2:27:04 PM	refrigerator	14th May, 14:00 ; The pressure difference between still and 3He roots inlet was found yesterday. The air which came at the target material loading may be frozen in the heat exchanger in the still puming line. We have started warming DR up to 100K in order to remove the air. By Nori
5/12/2004 8:15:20 PM	NMR	TE calib. was finished with good data at 14:00. by Nori
5/10/2004 12:39:21 PM	NMR	The new calibration started from 9th evening at 1.17 K. by Nori
5/8/2004 5:36:06 PM	general	BEAM MIGHT BE AVAILABLE ALREADY ON WEDNESDAY 13th OF MAY. Jacques_
5/8/2004 5:33:38 PM	polarization	Second set of TE measurements started yesterday around 2:00 PM with a temperature of 1.25 K. Jacques_
5/6/2004 1:14:08 PM	polarization	TE-calibration was started yesterday eveningJaakko
5/5/2004 11:18:48 AM	NMR	Start NMR. Good TE-signals from all coils while filling mixing chamber with liquid heliumJaakko
5/5/2004 10:20:04 AM	magnet	Ramp up solenoid field to 2.506 TJaakko
5/1/2004 12:03:51 AM	refrigerator	Start pumping out helium from dilution cryostat for more safe operationJaakko

4/27/2004 3:14:18 PM	magnet	Problem found in solenoid power supply transistor bank. Repair expected on next Tuesday May 4Jaakko
4/27/2004 11:40:53 AM	refrigerator	Mixing chamber was filled with liquid helium yesterday. Setup of magnet continues todayJaakko
4/23/2004 12:24:45 PM	general	Target material was loaded on Thursday April 22 12:00 - 18:00. No leaks to target holder vacuum. All NMR coils and thermometers are okJaakko