Run Plan for WACS E07-002
(January 25th - February 1st 2008)

D. Hamilton and B. Wojtsekhowski

26th January 2008

1 Off-endpoint Kinematics

$$
\begin{aligned}
E_{beam} &= 4.591\,GeV \\
\left\langle E_\gamma^{in} \right\rangle &= 4.1\,GeV \\
\left\langle E_\gamma^{scat} \right\rangle &= 2.8\,GeV \\
\left\langle \theta_\gamma \right\rangle &= 27.0° \\
D_{BigCal} &= 12.0\,m \\
p_p^{HMS} &= 2.02\,GeV/c \\
\theta_p^{HMS} &= 38.3°
\end{aligned}
$$

2 Installation Plan (01/25 Day)

- Turn beam off at 7 am and call RadCon for full sweep.

- Call MCC and ask for restricted access, if possible.

- Call Walter Kellner and Steve Lassiter when survey is complete.

- Move BigBite magnet into place (W. Kellner).

- Connect BigBite water supply and energize magnet coils (J. Beaufait).

- Move HMS to $35.8°$ and set momentum to $2.31\,GeV/c$ - check how much space will be available (S. Lassiter).

- Exchange GEpIII S0 scintillator plane in HMS detector stack for WACS S0 plane (B. Wojtsekhowksi, A. Shahinyan, C. Perdirsat, H. Mkrtchyan).

- Prepare trigger and timing as a result of S0 change (B. Wojtsekhowksi, M. Jones).

- Move HKS magnet in order to clear space for BigCal (W. Kellner).

- Move BigCal into position -26.5°, $12.0\,m$ (W. Kellner, L. Pentchev).

- Complete Hall C ESAD and E07-002 supplemental ESAD checklists and give to run coordinator (W. Kellner).

- Run coordinator should give completed checklists to D. Skopik.

3 Run Schedule

3.1 Pre-beam Preparation (01/25 Swing - D. Hamilton)

- Take cosmic data - check DAQ, online analysis tools.

- Check detector HV, ADC pedestal widths and operational remote controls including target mechanisms, BigBite power supply and HMS magnets.

- Move to empty target.

3.2 Check Beam (01/25 Swing - B. Wojtsekhowski)

- Bring beam into the hall and make measurements of position, charge and energy (2 hours - MCC makes HarpScan, M. Jones check results).

- Turn BigBite magnet on when beam is set up and look for change on beam dump camera.

3.3 Endpoint Commissioning Data (01/25 Swing/Owl)

- Endpoint kinematics:
  HMS Angle/Momentum $= 2.31\,GeV/c$ / 35.8°

- Ensure trigger is set to single-arm HMS (change pre-scale factors).

- Change target to carbon foil and take HMS alignment data (15 mins).

- Change trigger to coincidence.

- Change target to 20 cm LH_2.

- Set calorimeter discrimator threshold to $1.4\,GeV$.

- Take endpoint data:
  BigBite magnet on - check deflection (15 mins).
  BigBite magnet off - check resolution, BigCal alignment (30 mins).

- Change target to 15 cm LH_2 with 9 % Cu radiator.

- Take endpoint data:
  BigBite magnet on (15 mins),
  BigBite magnet off - learn more about counting rates, deadtime and Big-Cal threshold (30 mins).

3.4   Off-endpoint Production Data (01/26 Day)

- Move HMS to off-endpoint kinematics:
  HMS Angle/Momentum $= 2.02\,GeV/c$ / $38.3°$

- Change target to dummy target and take data - check background from target walls (15 mins).

- Change target to 15 cm LH_2 with 9 % Cu radiator.

- Take off-endpoint data:
  BigBite magnet off (15 mins).
  BigBite magnet on for production running.

- Make Moller measurement and check that beam energy and Wien filter are consistent (1 hour - D. Gaskell, T. Horn).

Appendix A
Shift Schedule

	Owl Shift	Day Shift	Swing Shift
01/25 Fri		*BigBite Install* **TO:** P. Bosted	**SL:** K. Slifer **TO:** M. Khandaker **OLA:** D. Hamilton
01/26 Sat	**SL:** P. Markowitz **TO:** S. Danagoulian **OLA:** M. Meziane	**SL:** H. Baghdasaryan **TO:** P. Bosted **3rd:** E. Chudakov	**SL:** R. Lindgren **TO:** K. Slifer **OLA:** W. Luo
01/27 Sun	**SL:** P. Markowitz **TO:** S. Danagoulian **OLA:** M. Meziane	**SL:** H. Baghdasaryan **TO:** G. Mbianda **3rd:** R. Lindgren	**SL:** K. Slifer **TO:** D. Day **OLA:** W. Luo
01/28 Mon	**SL:** P. Markowitz **TO:** J. Maxwell **OLA:** A. Puckett	**SL:** R. Lindgren **TO:** V. Mamyan **3rd:** E. Chudakov	**SL:** D. Day **TO:** M. Khandaker **OLA:** W. Luo
01/29 Tue	**SL:** P. Markowitz **TO:** J. Maxwell **OLA:** A. Puckett	**SL:** K. Slifer **TO:** V. Mamyan **3rd:** E. Chudakov	**SL:** D. Day **TO:** G. Mbianda **OLA:** M. Meziane
01/30 Wed	**SL:** P. Markowitz **TO:** M. Khandaker **OLA:** W. Luo	**SL:** R. Lindgren **TO:** G. Mbianda **3rd:** E. Chudakov	**SL:** D. Day **TO:** V. Mamyan **OLA:** A. Puckett
01/31 Thu	**SL:** J. Miller **TO:** J. Maxwell **OLA:** W. Luo	**SL:** C. Perdrisat **TO:** V. Punjabi **3rd:**	**SL:** H. Baghdasaryan **TO:** V. Mamyan **OLA:** A. Puckett
02/01 Fri	**SL:** J. Miller **TO:** J. Maxwell **OLA:** W. Luo		

SL: Shift Leader
TO: Target Operator
OLA/3rd: Online Analysis/3rd

Run Experts

Name	Responsibility	Office	Pager	Cell/Home	Email
B. Wojtsekhowski	Run Coordinator	7191	584-7191	876-1791	bogdanw@jlab.org
	Program Deputy			876-7997	
S. Wood	Hall C Leader	7367	584-7367	593-6656	saw@jlab.org
P. Bosted	Physics Division Liason	5851			bosted@jlab.org
D. Skopik	Safety	7740	584-7740		skopik@jlab.org
B. Manzlak	Safety	7556	584-7556	897-2051	manzlak@jlab.org
	RadCon			876-1743	

Name	Responsibility	Office	Pager	Cell/Home	Email
B. Wojtsekhowski	Run Coordinator	7191	584-7191	876-1791	bogdanw@jlab.org
	Program Deputy			876-7997	
S. Wood	Hall C Leader	7367	584-7367	593-6656	saw@jlab.org
P. Bosted	Physics Division Liason	5851			bosted@jlab.org
D. Skopik	Safety	7740	584-7740		skopik@jlab.org
B. Manzlak	Safety	7556	584-7556	897-2051	manzlak@jlab.org
	RadCon			876-1743	
A. Shahinyan	RadWatcher	5516	584-5442		shahinya@jlab.org
S. Mayilyan	RadWatcher	7340	584-5711		mayilyan@jlab.org

Name	Responsibility	Office	Pager	Cell/Home	Email
W. Kellner	Technical	5512	584-5512	592-1527	kellner@jlab.org
M. Jones	Computing/Beam Energy	7733	584-7733	220-2073	jones@jlab.org
G. Smith	Target	5405	584-5405		smithg@jlab.org
S. Wood	Hall C Leader (DAQ/Slow controls)	7367	584-7367	593-6656	saw@jlab.org
B. Vulcan	Electrical (BigBite)	6271	584-6271		vulcan@jlab.org
D. Gaskell	Moller	6092	584-6092		gaskelld@jlab.org
T. Horn	Moller	7604			hornt@jlab.org
H. Fenker	Detectors	7431	584-7431		hcf@jlab.org
C. Yan	Rasters/Harp	7349			yan@jlab.org
J. Beaufait	Electrical (BigBite)	7131	584-7131		beaufait@jlab.org
F. Wesselmann	FPP	5566	584-5681		frw@jlab.org
D. Meekins	Target	5434	584-5434		meekins@jlab.org
H. Mkrtchyan	Detectors	7741			hamlet@jlab.org

Name	Responsibility	Office	Pager	Cell/Home	Email
C. Perdrisat	GEp	5304	584-5304	715-8608	perdrisa@jlab.org
L. Pentchev	GEp/BigCal	7680	584-5462	508-3663	pentchev@jlab.org
A. Puckett	BigCal/Analysis	5124/5362		784-1241	puckett@jlab.org
W. Luo	BigCal/Analysis	5556		746-2224	weiluo@jlab.org
M. Meziane	FPP/Analysis			812-5824	mezianem@jlab.org
A. Shahinyan	Detectors	5516	584-5442		shahinya@jlab.org
D. Hamilton	Analysis	5516		+447912524884	dhamilto@jlab.org
R. Gilman	WACS Spokeperson	7011			gilman@jlab.org