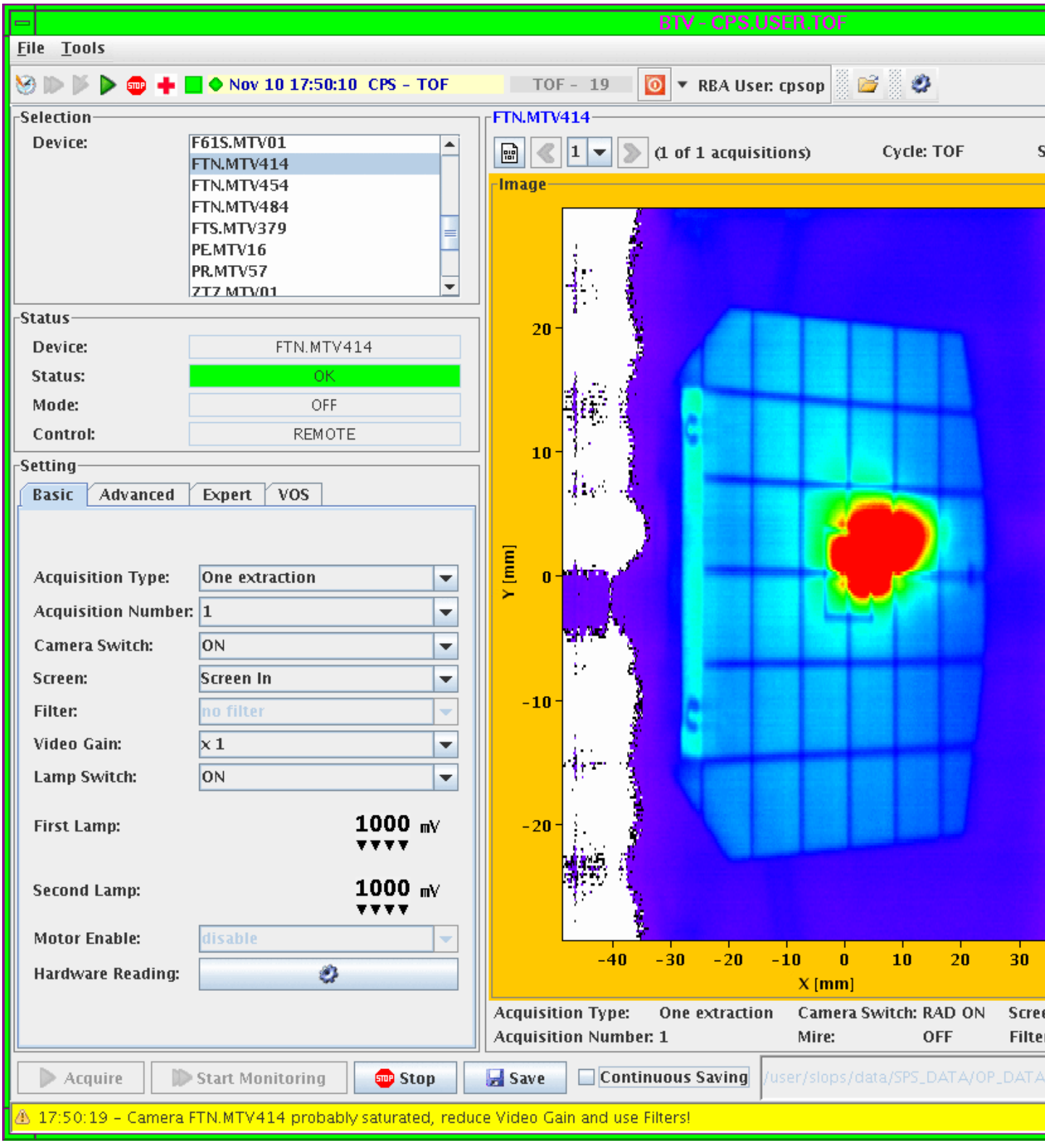
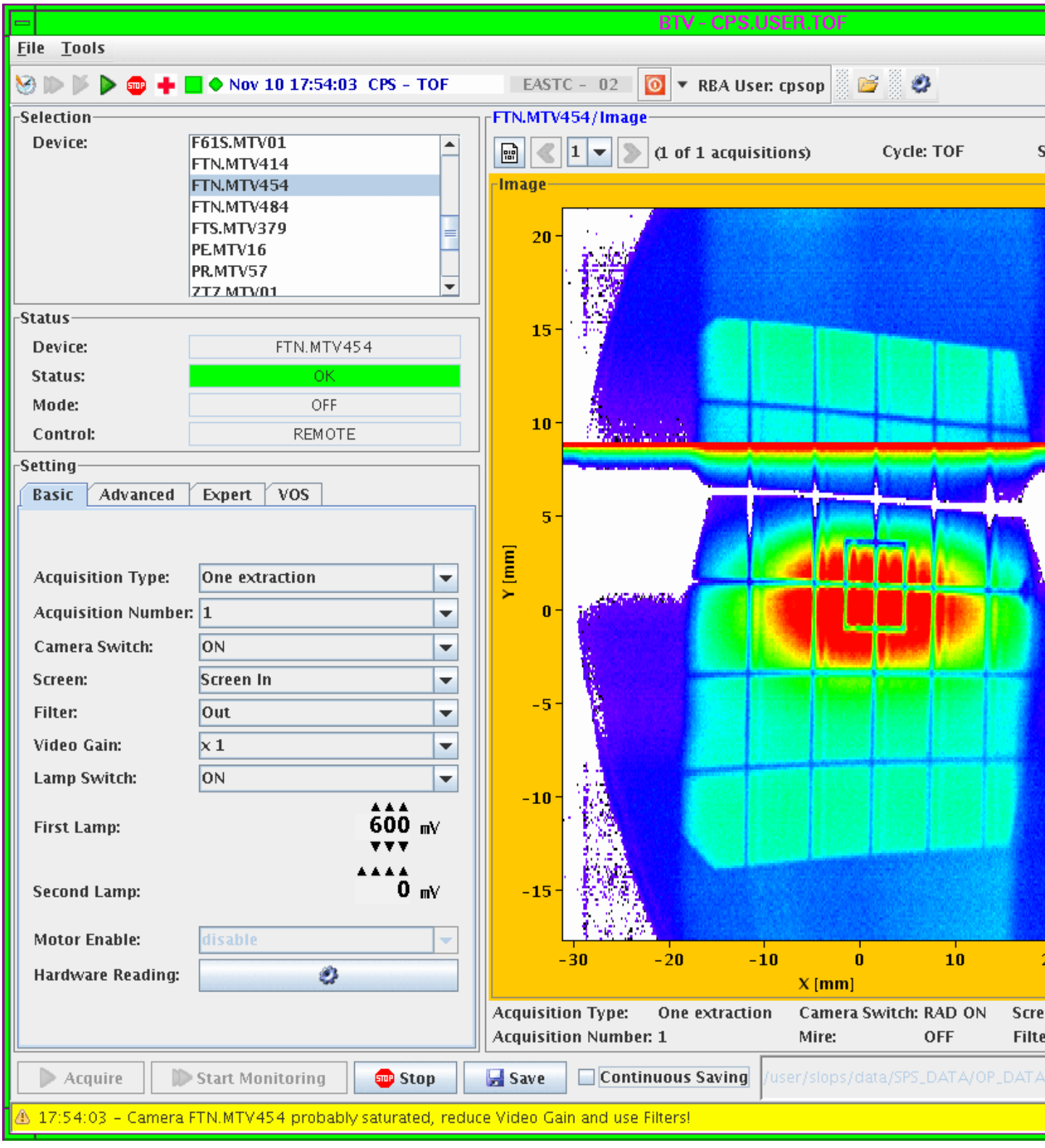
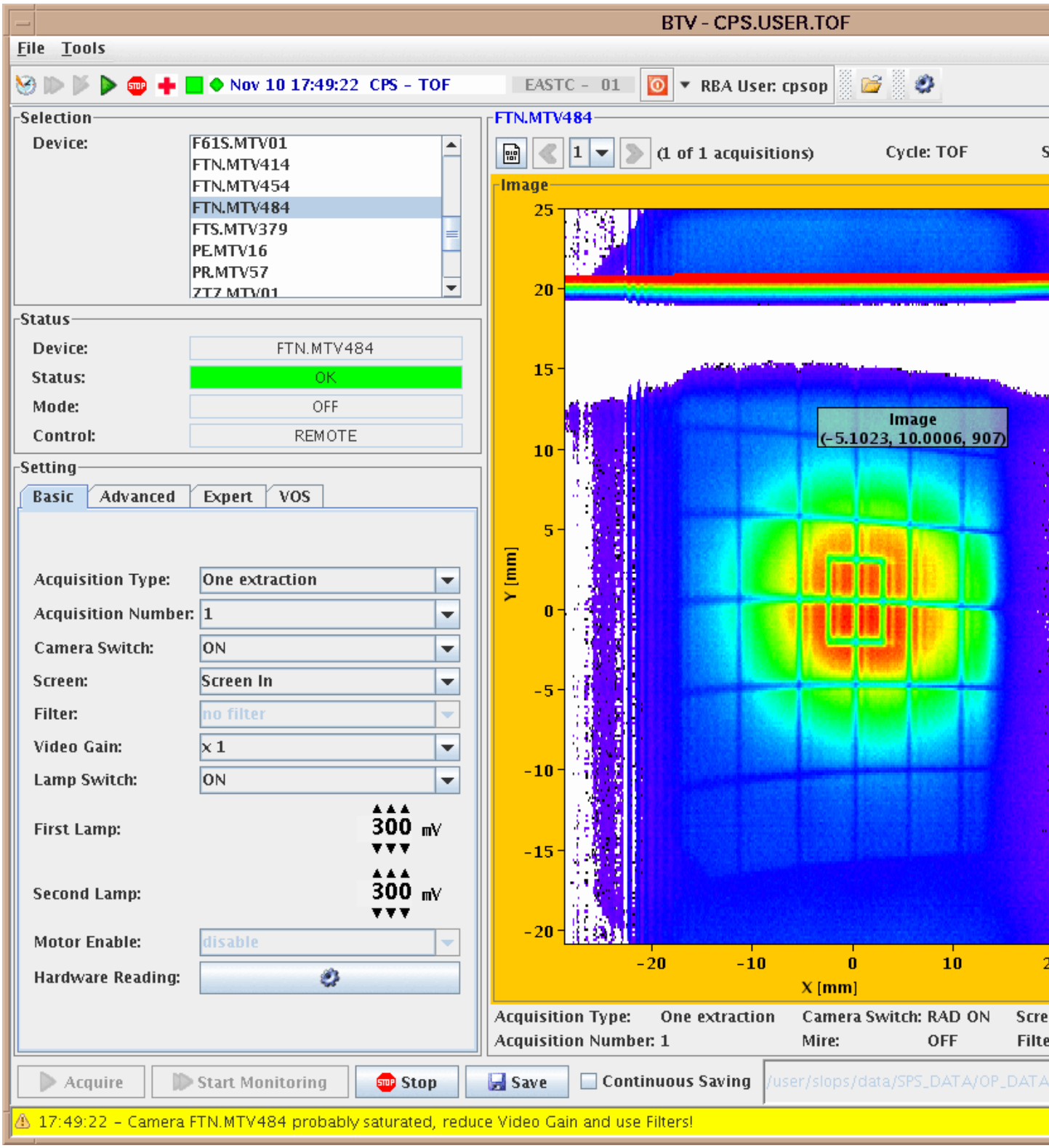
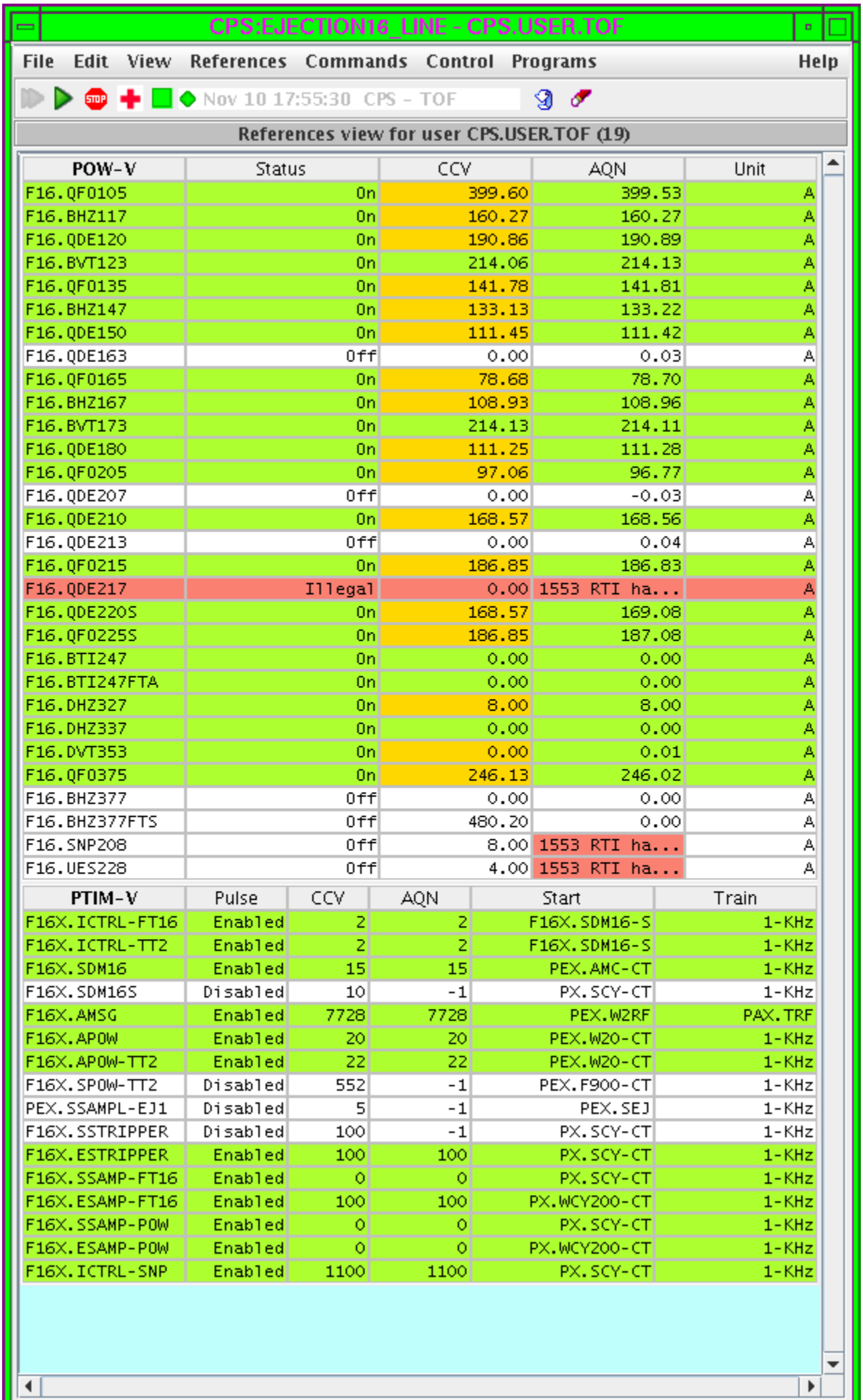
nTOF commissioning

Monday, November 10, 2008
5:49 PM


BTV - CPS.USER.TOF
File Tools
Nov 10 17:50:10 CPS - TOF
TOF - 19
RBA User: cpsop
Selection
Device:
F61S.MTV01
FTN.MTV414
FTN.MTV454
FTN.MTV484
FTS.MTV379
PE.MTV16
PR.MTV57
Status
Device: FTN.MTV414
Status: OK
Mode: OFF
Control: REMOTE
Setting
Basic
Advanced
Expert
VOS
Acquisition Type: One extraction
Acquisition Number: 1
Camera Switch: ON
Screen: Screen In
Filter: no filter
Video Gain: x 1
Lamp Switch: ON
First Lamp: 1000 mV
Second Lamp: 1000 mV
Motor Enable: disable
Hardware Reading:
FTN.MTV414
(1 of 1 acquisitions)
Cycle: TOF
Image
Y [mm]
X [mm]
Acquisition Type: One extraction
Acquisition Number: 1
Camera Switch: RAD ON
Mire: OFF
Acquire
Start Monitoring
Stop
Save
Continuous Saving
17:50:19 - Camera FTN.MTV414 probably saturated, reduce Video Gain and use Filters!

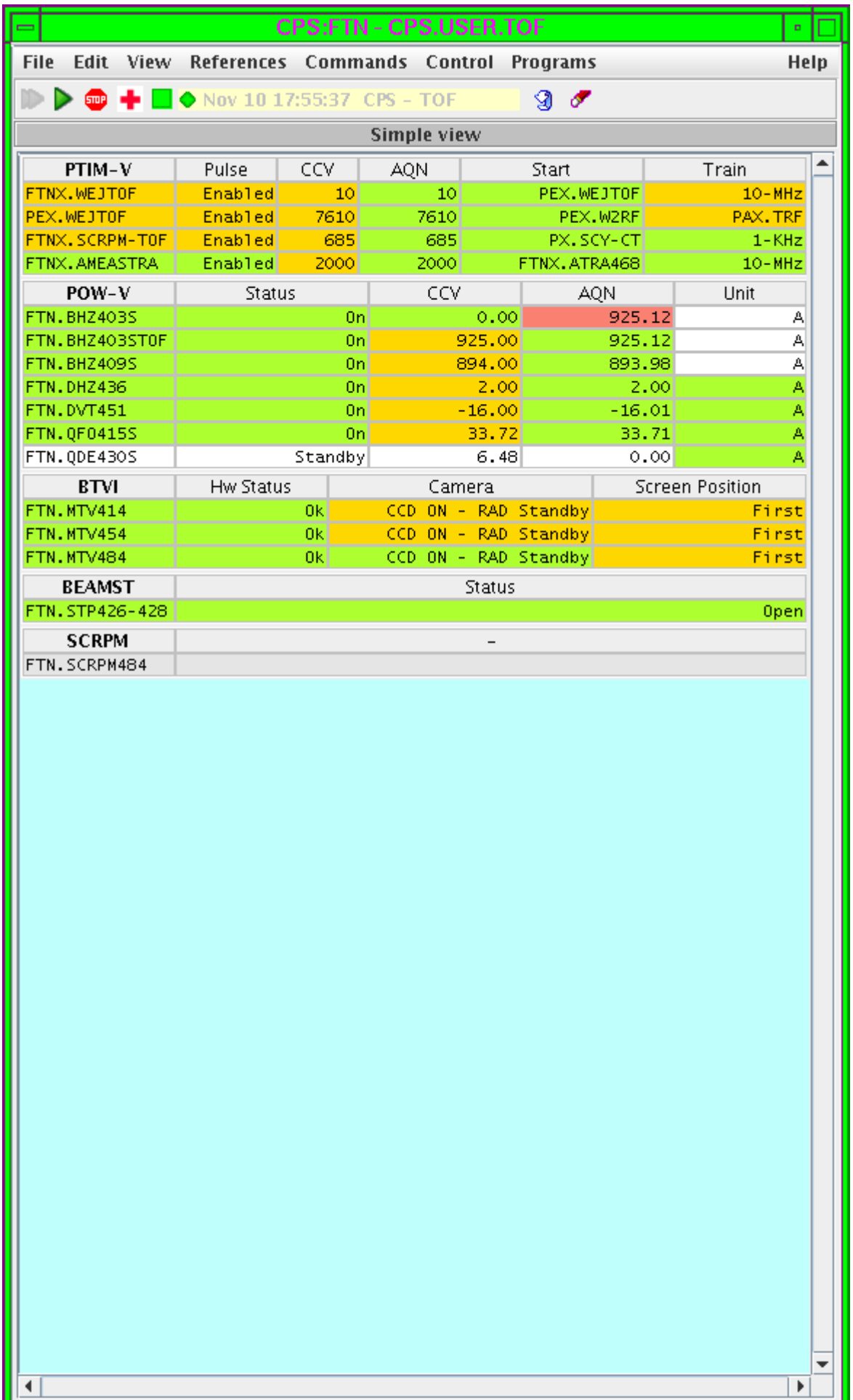

BTV - CPS.USER.TOF
File Tools
Nov 10 17:54:03 CPS - TOF
EASTC - 02
RBA User: cpsop
Selection
Device:
F61S.MTV01
FTN.MTV414
FTN.MTV454
FTN.MTV484
FTS.MTV379
PE.MTV16
PR.MTV57
Status
Device: FTN.MTV454
Status: OK
Mode: OFF
Control: REMOTE
Setting
Basic
Advanced
Expert
VOS
Acquisition Type: One extraction
Acquisition Number: 1
Camera Switch: ON
Screen: Screen In
Filter: Out
Video Gain: x 1
Lamp Switch: ON
First Lamp: 600 mV
Second Lamp: 0 mV
Motor Enable: disable
Hardware Reading:
FTN.MTV454/Image
(1 of 1 acquisitions)
Cycle: TOF
Image
Y [mm]
X [mm]
Acquisition Type: One extraction
Acquisition Number: 1
Camera Switch: RAD ON
Mire: OFF
Acquire
Start Monitoring
Stop
Save
Continuous Saving
/user/slops/data/SPS_DATA/OP_DATA
17:54:03 - Camera FTN.MTV454 probably saturated, reduce Video Gain and use Filters!

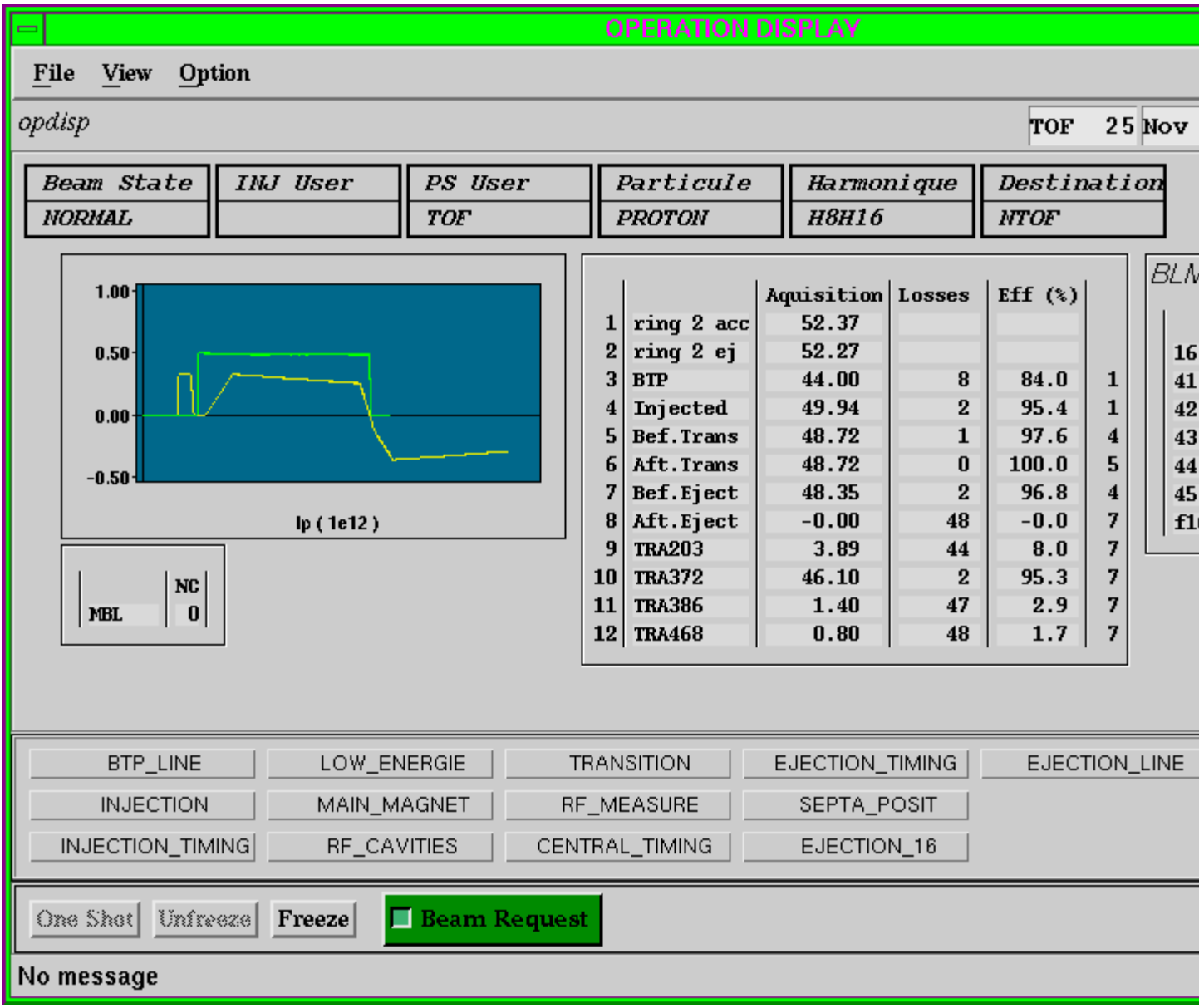

BTV - CPS.USER.TOF
File Tools
Nov 10 17:49:22 CPS - TOF
EASTC - 01
RBA User: cpsop
Selection
Device:
F61S.MTV01
FTN.MTV414
FTN.MTV454
FTN.MTV484
FTS.MTV379
PE.MTV16
PR.MTV57
Status
Device: FTN.MTV484
Status: OK
Mode: OFF
Control: REMOTE
Setting
Basic
Advanced
Expert
VOS
Acquisition Type: One extraction
Acquisition Number: 1
Camera Switch: ON
Screen: Screen In
Filter: no filter
Video Gain: x 1
Lamp Switch: ON
First Lamp: 300 mV
Second Lamp: 300 mV
Motor Enable: disable
Hardware Reading:
FTN.MTV484
(1 of 1 acquisitions)
Cycle: TOF
Image
Image
(-5.1023, 10.0006, 907)
Y [mm]
X [mm]
Acquisition Type: One extraction
Camera Switch: RAD ON
Acquisition Number: 1
Mire: OFF
Acquire
Start Monitoring
Stop
Save
Continuous Saving
/user/slops/data/SPS_DATA/OP_DATA
17:49:22 - Camera FTN.MTV484 probably saturated, reduce Video Gain and use Filters!



POW-V	Status	CCV	AQN	Unit
F16.QF0105	On	399.60	399.53	A
F16.BHZ117	On	160.27	160.27	A
F16.QDE120	On	190.86	190.89	A
F16.BVT123	On	214.06	214.13	A
F16.QF0135	On	141.78	141.81	A
F16.BHZ147	On	133.13	133.22	A
F16.QDE150	On	111.45	111.42	A
F16.QDE163	Off	0.00	0.03	A
F16.QF0165	On	78.68	78.70	A
F16.BHZ167	On	108.93	108.96	A
F16.BVT173	On	214.13	214.11	A
F16.QDE180	On	111.25	111.28	A
F16.QF0205	On	97.06	96.77	A
F16.QDE207	Off	0.00	-0.03	A
F16.QDE210	On	168.57	168.56	A
F16.QDE213	Off	0.00	0.04	A
F16.QF0215	On	186.85	186.83	A
F16.QDE217	Illegal	0.00	1553 RTI ha...	A
F16.QDE220S	On	168.57	169.08	A
F16.QF0225S	On	186.85	187.08	A
F16.BTI247	On	0.00	0.00	A
F16.BTI247FTA	On	0.00	0.00	A
F16.DHZ327	On	8.00	8.00	A
F16.DHZ337	On	0.00	0.00	A
F16.DVT353	On	0.00	0.01	A
F16.QF0375	On	246.13	246.02	A
F16.BHZ377	Off	0.00	0.00	A
F16.BHZ377FTS	Off	480.20	0.00	A
F16.SNP208	Off	8.00	1553 RTI ha...	A
F16.UES228	Off	4.00	1553 RTI ha...	A

PTIM-V	Pulse	CCV	AQN	Start	Train
F16X.ICTRL-FT16	Enabled	2	2	F16X.SDM16-S	1-KHz
F16X.ICTRL-TT2	Enabled	2	2	F16X.SDM16-S	1-KHz
F16X.SDM16	Enabled	15	15	PEX.AMC-CT	1-KHz
F16X.SDM16S	Disabled	10	-1	PX.SCY-CT	1-KHz
F16X.AMSG	Enabled	7728	7728	PEX.W2RF	PAX.TRF
F16X.APOW	Enabled	20	20	PEX.W20-CT	1-KHz
F16X.APOW-TT2	Enabled	22	22	PEX.W20-CT	1-KHz
F16X.SPOW-TT2	Disabled	552	-1	PEX.F900-CT	1-KHz
PEX.SSAMPL-EJ1	Disabled	5	-1	PEX.SEJ	1-KHz
F16X.SSTRIPPER	Disabled	100	-1	PX.SCY-CT	1-KHz
F16X.ESTRIPPER	Enabled	100	100	PX.SCY-CT	1-KHz
F16X.SSAMP-FT16	Enabled	0	0	PX.SCY-CT	1-KHz
F16X.ESAMP-FT16	Enabled	100	100	PX.WCY200-CT	1-KHz
F16X.SSAMP-POW	Enabled	0	0	PX.SCY-CT	1-KHz
F16X.ESAMP-POW	Enabled	0	0	PX.WCY200-CT	1-KHz
F16X.ICTRL-SNP	Enabled	1100	1100	PX.SCY-CT	1-KHz


CPS:FTN - CPS.USER.TOF
File Edit View References Commands Control Programs Help
Nov 10 17:55:37 CPS - TOF
Simple view
PTIM-V | Pulse | CCV | AQN | Start | Train
FTNX.WEJTOF | Enabled | 10 | 10 | PEX.WEJTOF | 10-MHz
PEX.WEJTOF | Enabled | 7610 | 7610 | PEX.W2RF | PAX.TRF
FTNX.SCRPM-TOF | Enabled | 685 | 685 | PX.SCY-CT | 1-KHz
FTNX.AMEASTRA | Enabled | 2000 | 2000 | FTNX.ATRA468 | 10-MHz
POW-V | Status | CCV | AQN | Unit
FTN.BHZ403S | On | 0.00 | 925.12 | A
FTN.BHZ403STOF | On | 925.00 | 925.12 | A
FTN.BHZ409S | On | 894.00 | 893.98 | A
FTN.DHZ436 | On | 2.00 | 2.00 | A
FTN.DVT451 | On | -16.00 | -16.01 | A
FTN.QF0415S | On | 33.72 | 33.71 | A
FTN.QDE430S | Standby | 6.48 | 0.00 | A
BTVI | Hw Status | Camera | Screen Position
FTN.MTV414 | Ok | CCD ON - RAD Standby | First
FTN.MTV454 | Ok | CCD ON - RAD Standby | First
FTN.MTV484 | Ok | CCD ON - RAD Standby | First
BEAMST | Status
FTN.STP426-428 | Open
SCRPM | -
FTN.SCRPM484



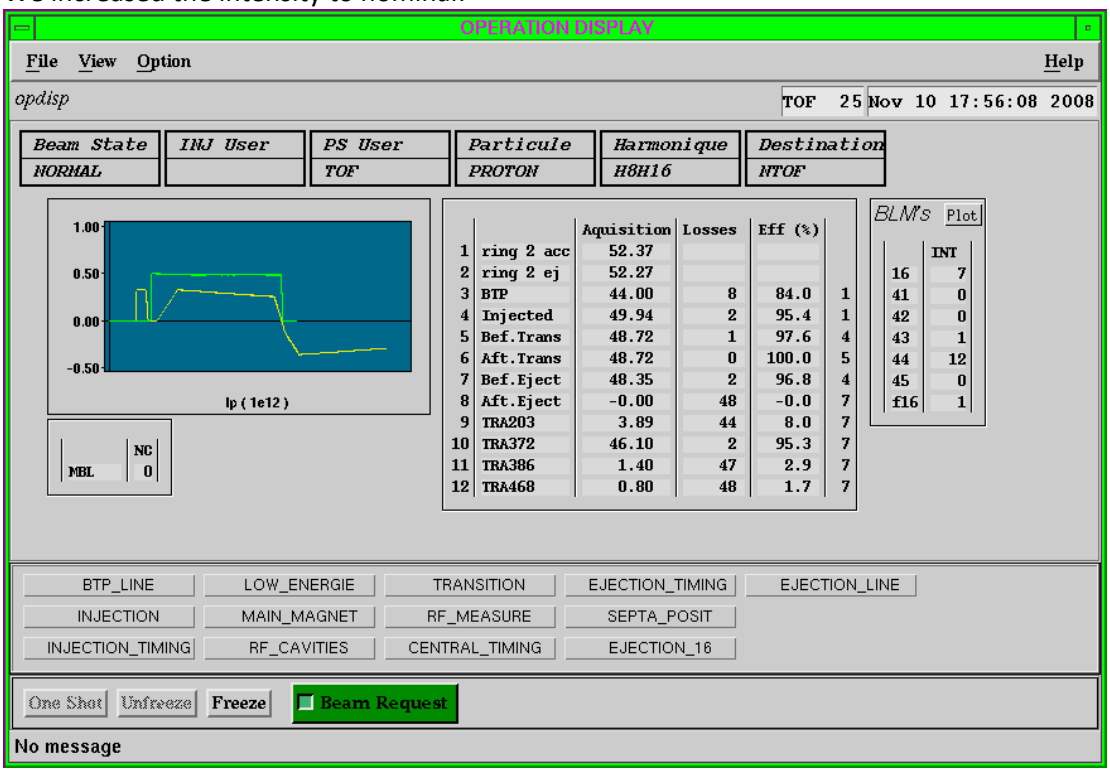
The above is the final settingwe found with low intensity after some difficulties to finds the beam with the low focussing.

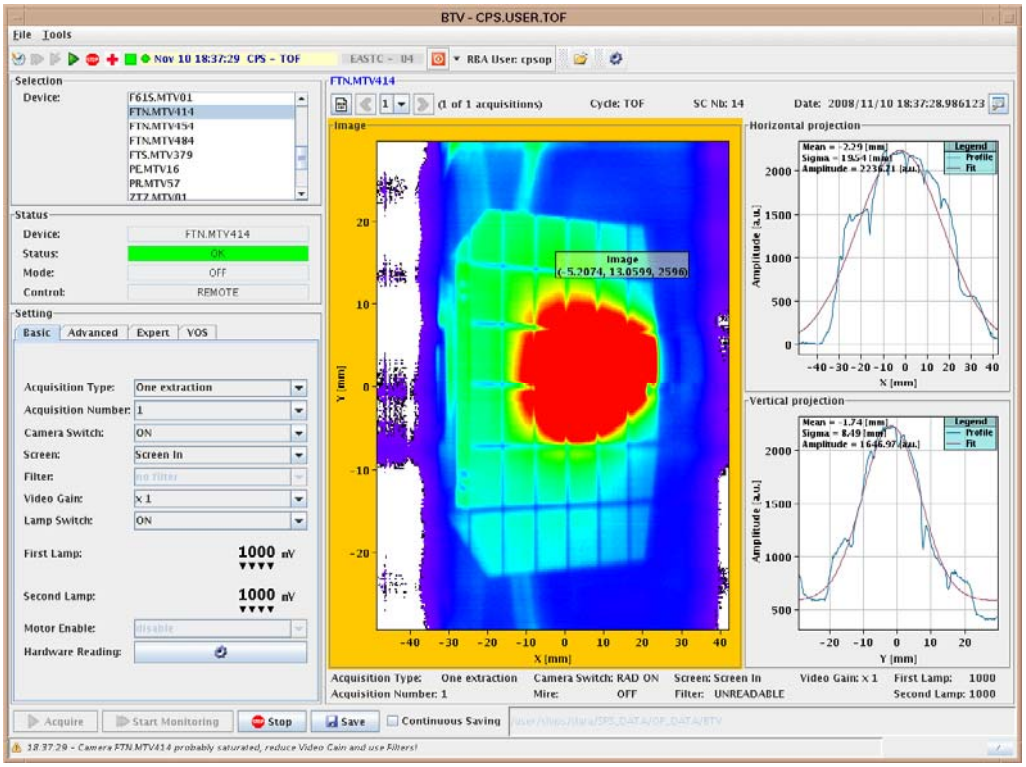
I have reloaded the old 2004 TT2 optics and then we scaled down the FTN optics and re-steered everytime the beam. The different settings are given below:

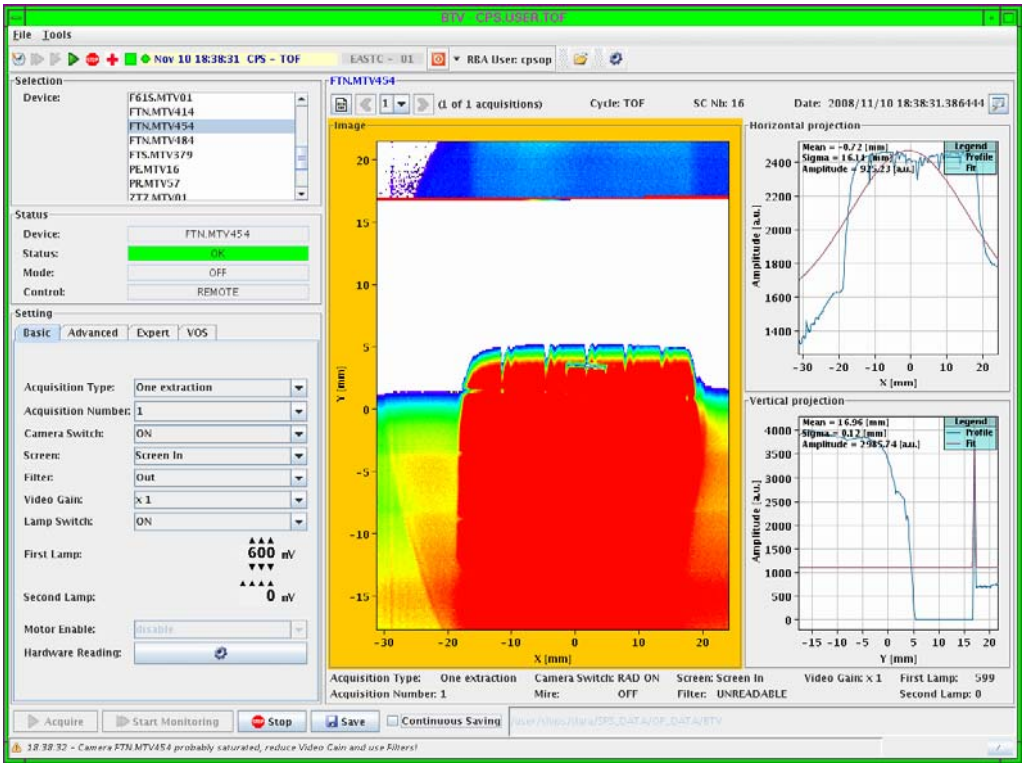
Element	80%	70%	50%	40%	20%
BHZ403	939	939	931	928	925
BHZ409	885	865	885	888	891
DHZ436	0	0	0	0	0
DVT451	0	-12	-16	-16	-16
QFO415	186	163.45	116.7	93.7	46.7

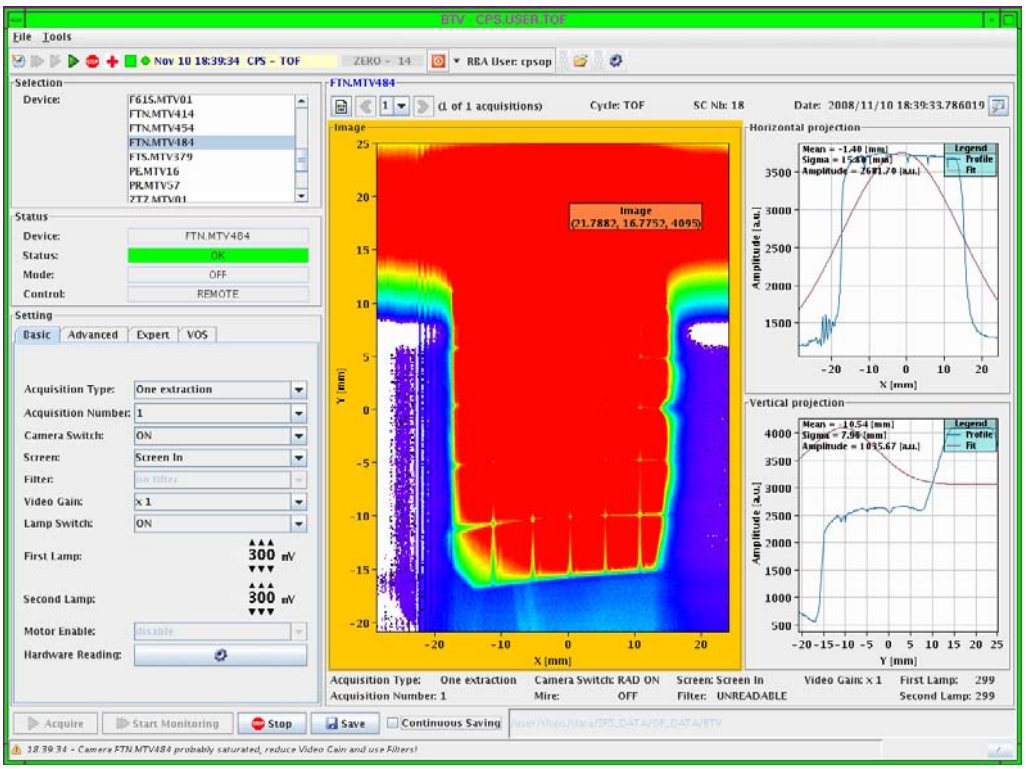
QDE430	134	117.3	83.7	67.1	33.5

We increased the intensity to nominal:

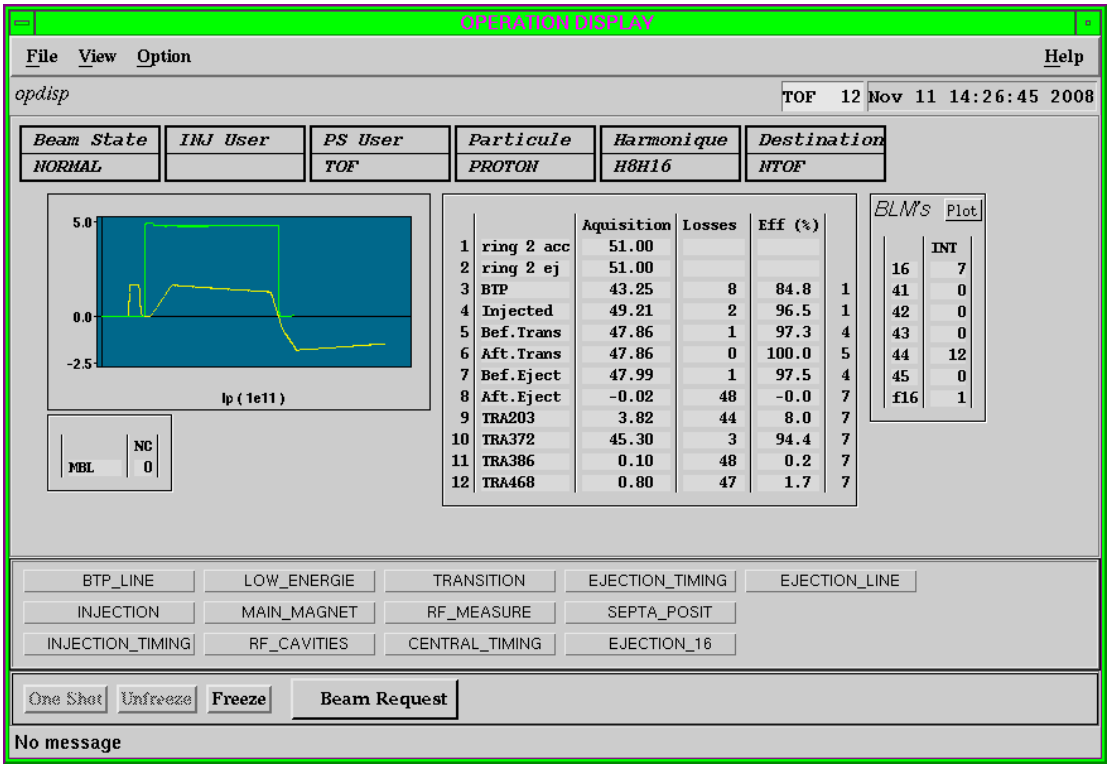


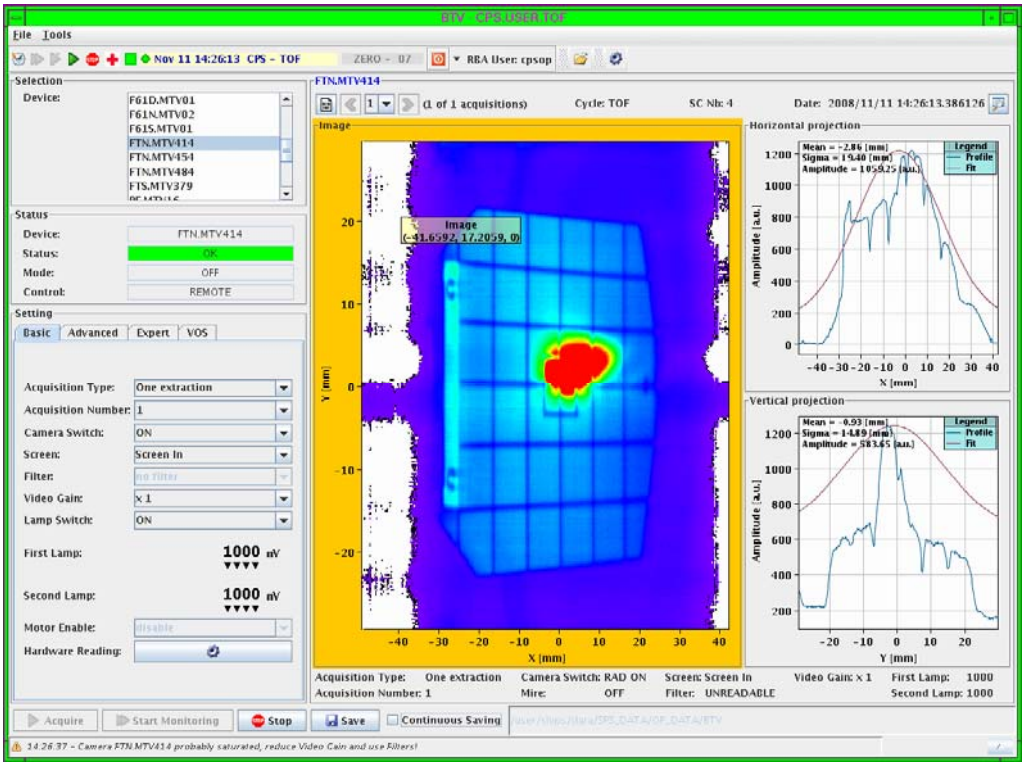






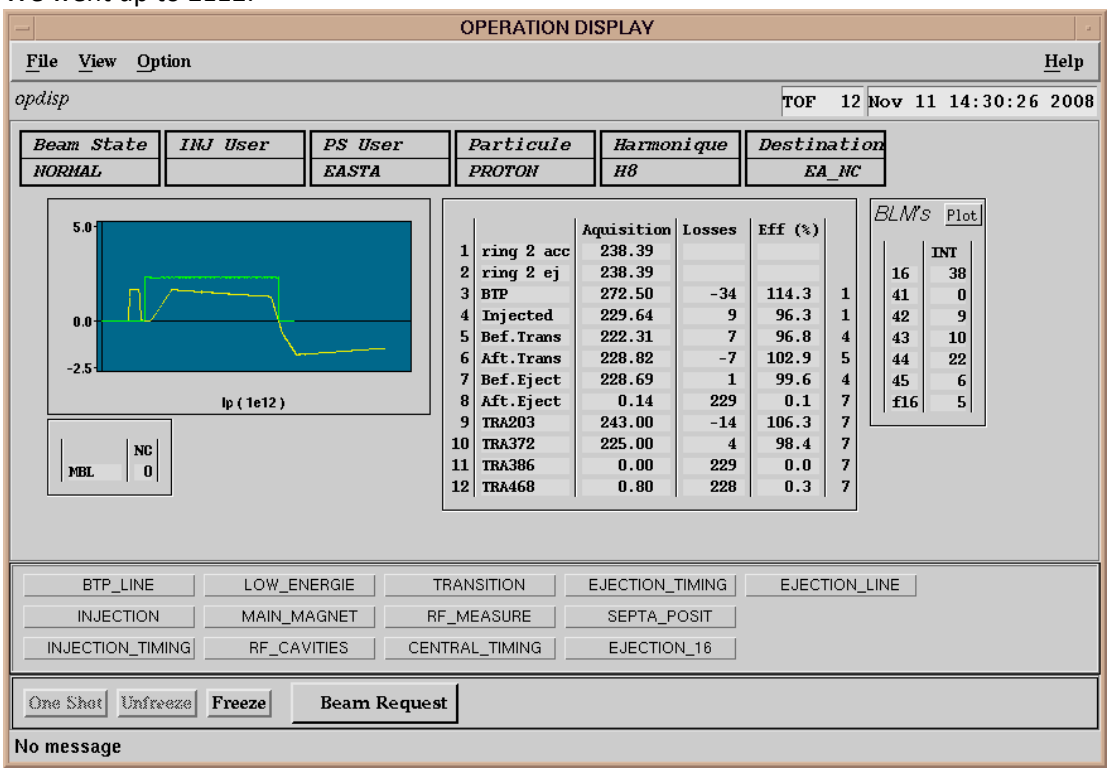
2nd part of the commissioning 11/11/2008:

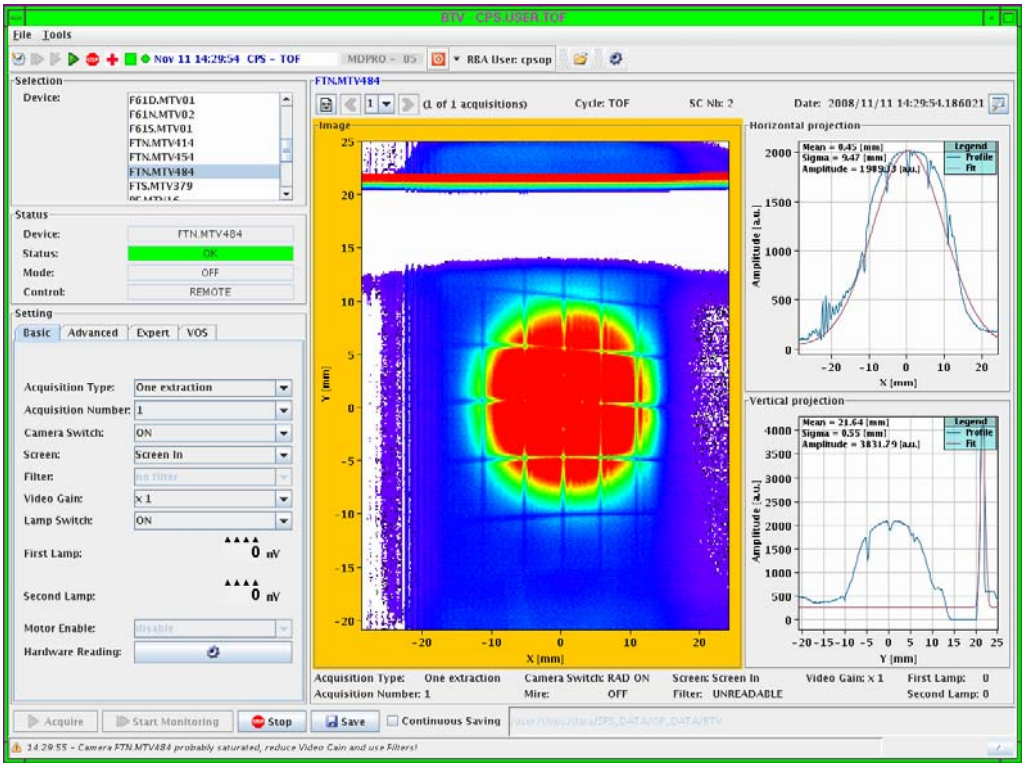




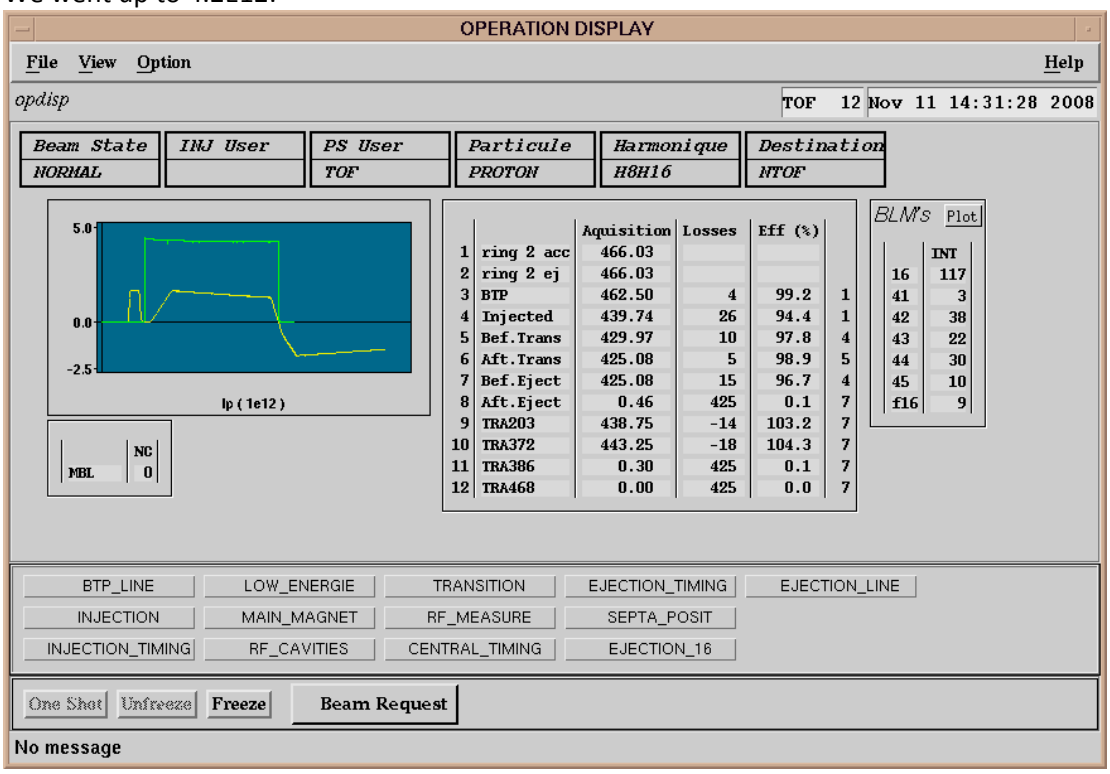
We went to the 50% focussing:

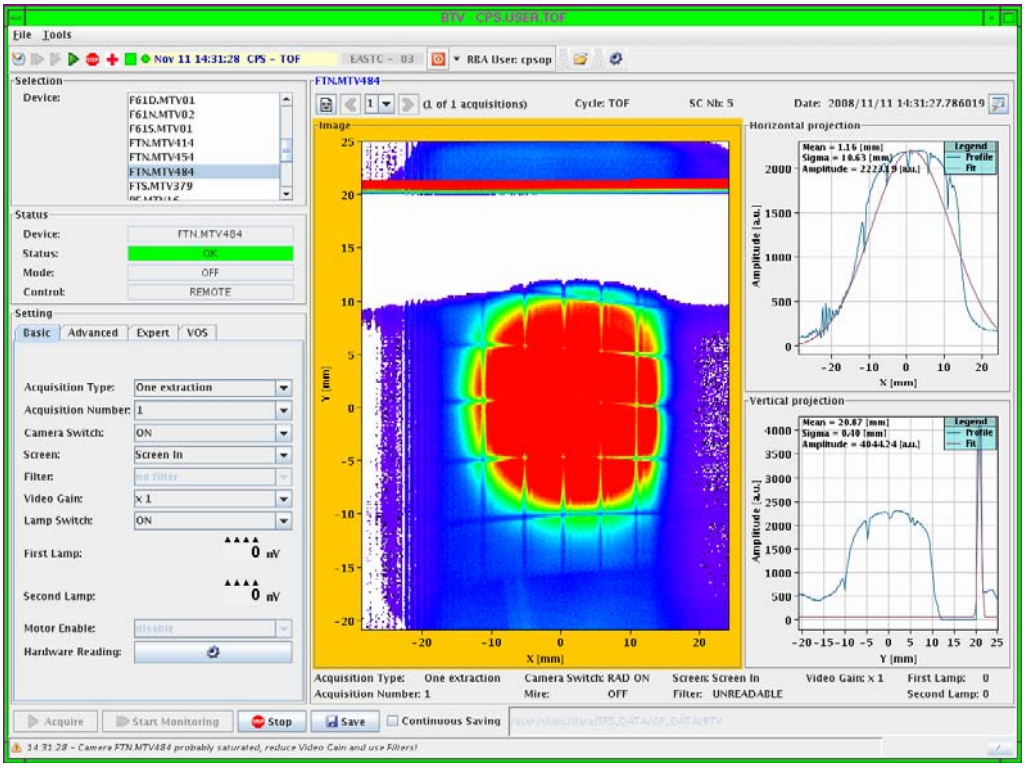
We went up to 2E12:



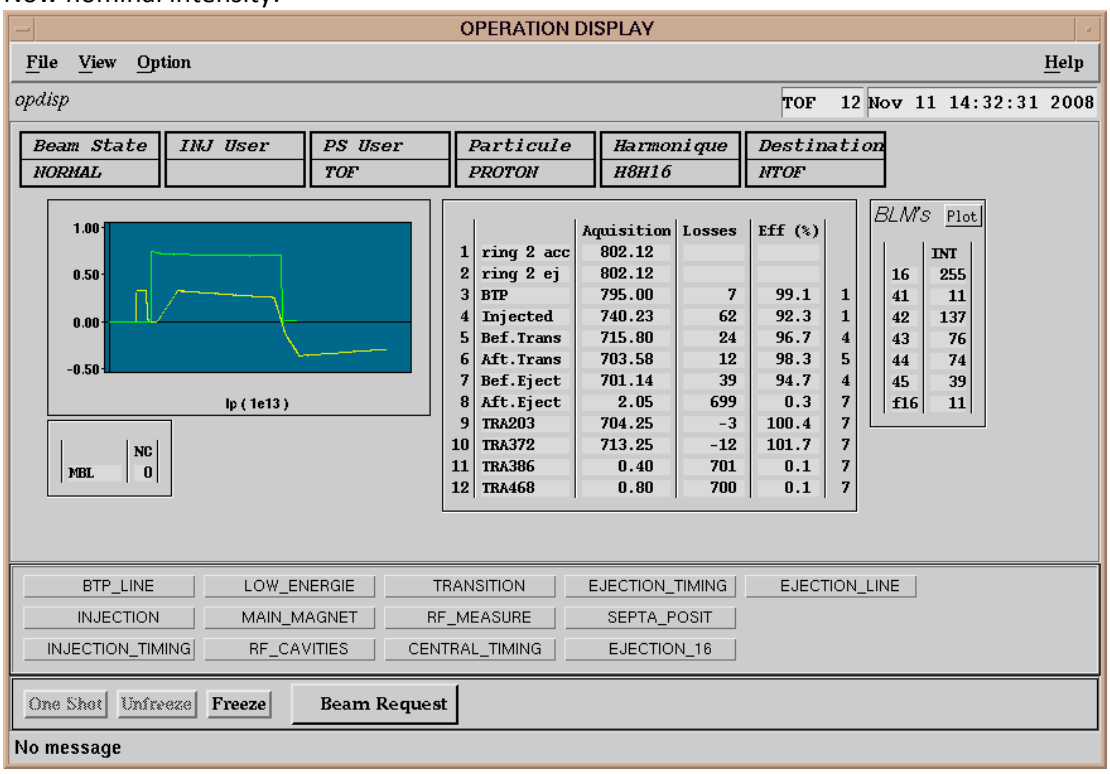


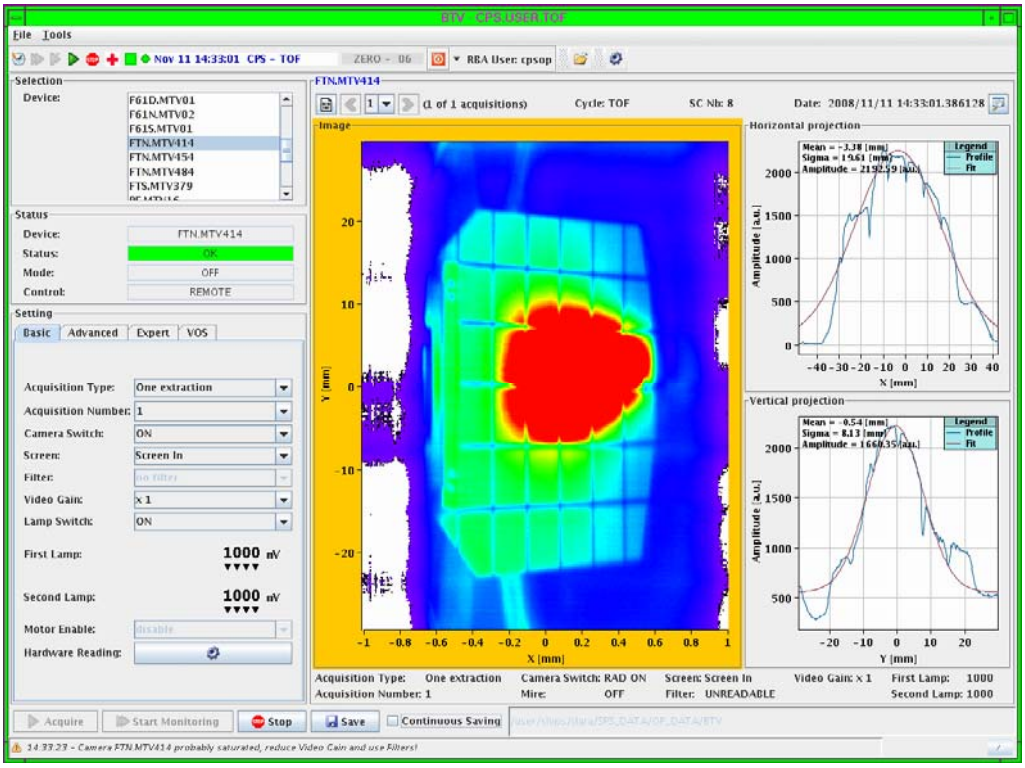
We went up to 4.2E12:

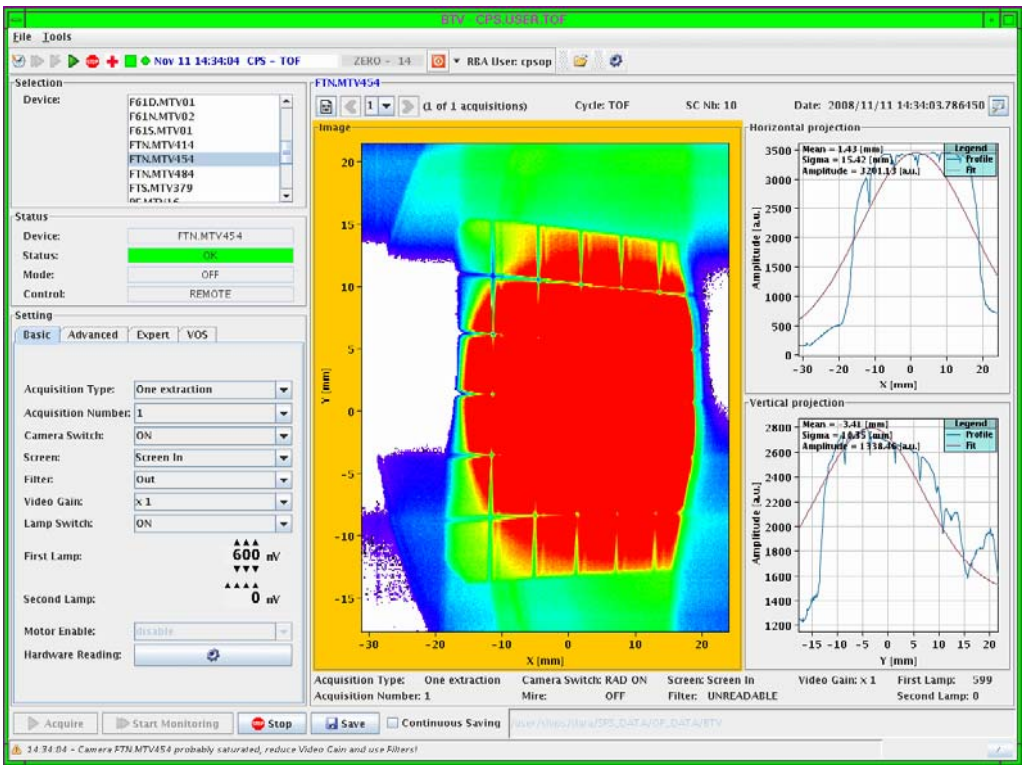


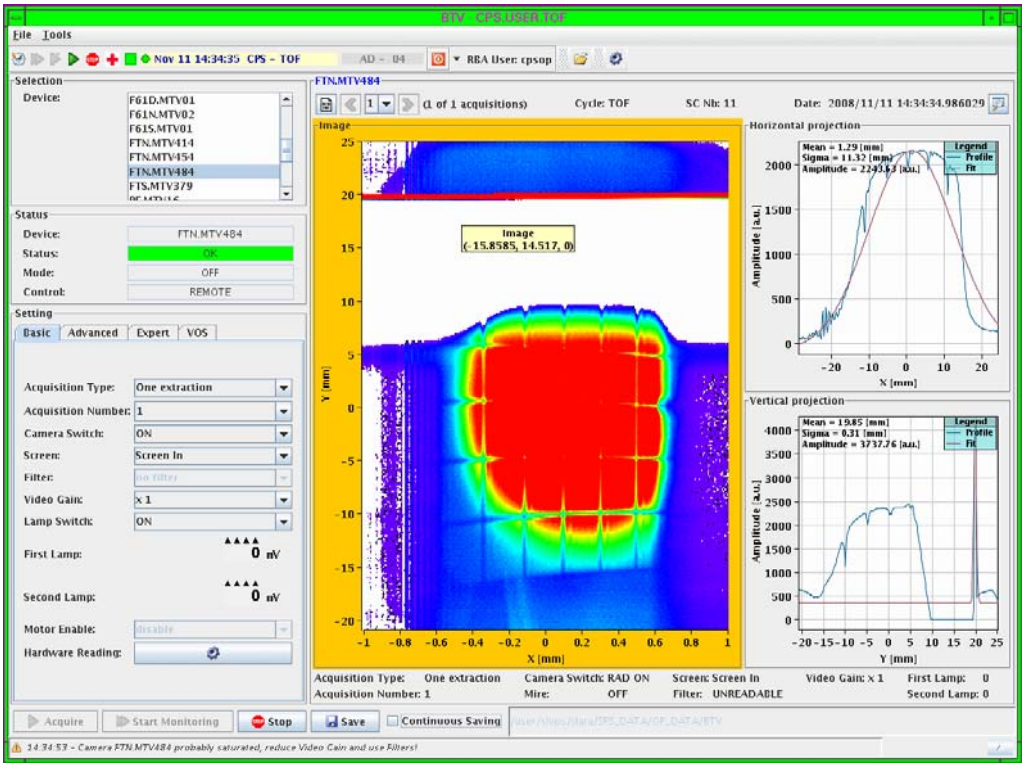


Now nominal intensity:

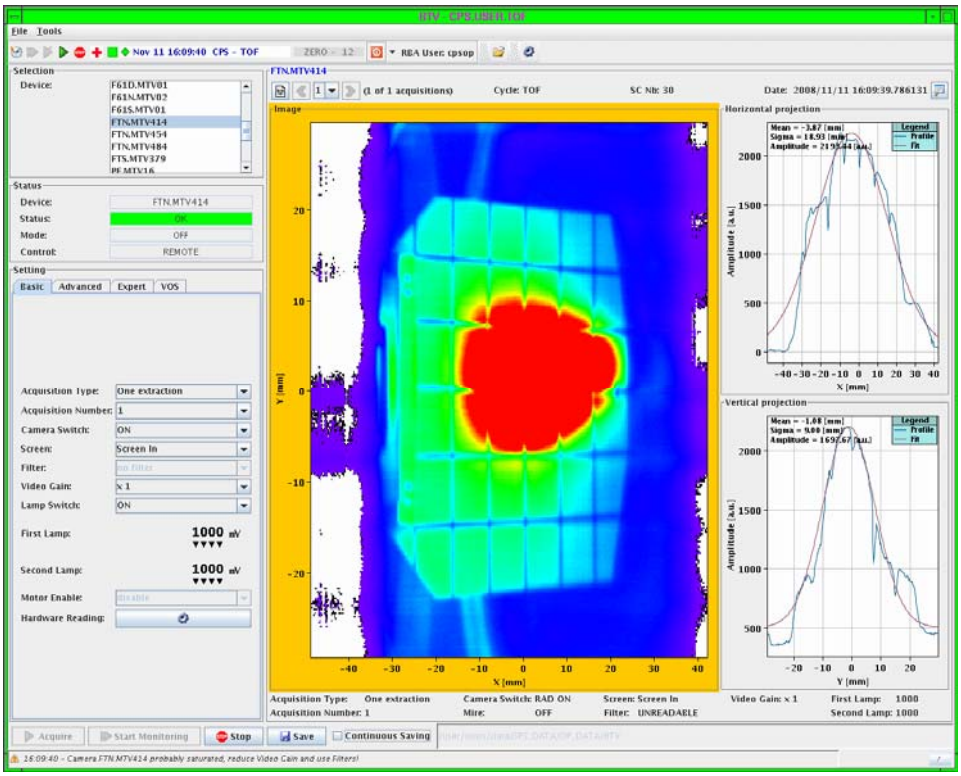


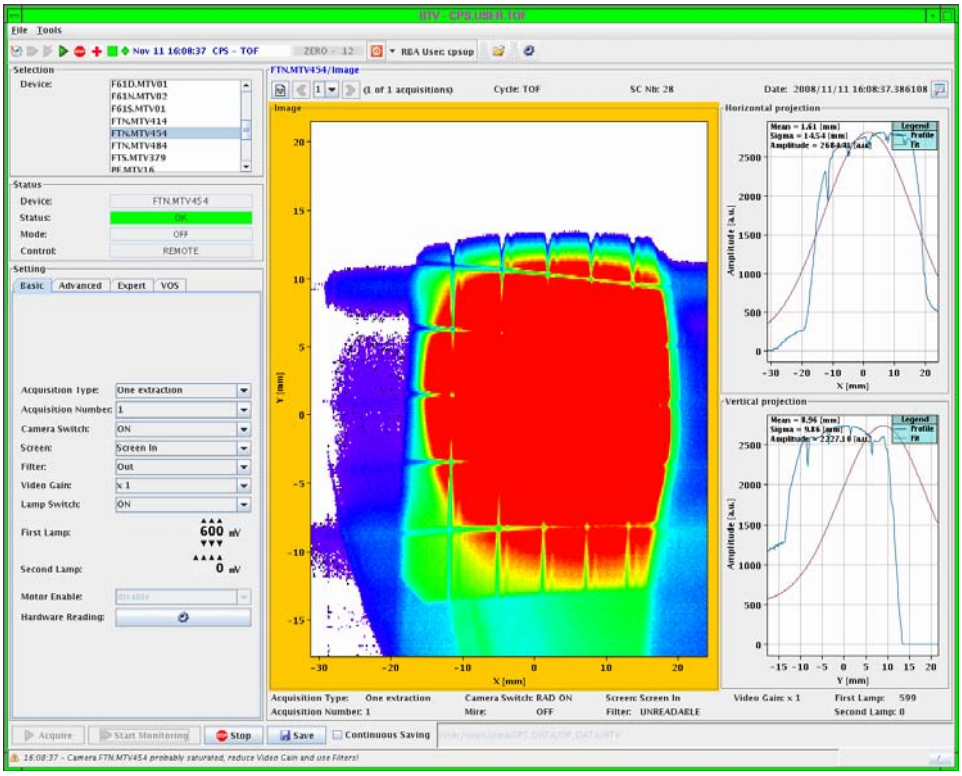

BTV - CPS.USER.TOF
File Tools
Nov 11 14:33:01 CPS - TOF
ZERO - 06
RBA User: cpsop
Selection
Device:
F61D.MTV01
F61N.MTV02
F61S.MTV01
FTN.MTV414
FTN.MTV454
FTN.MTV484
FTS.MTV379
Status
Device: FTN.MTV414
Status: OK
Mode: OFF
Control: REMOTE
Setting
Basic Advanced Expert VOS
Acquisition Type: One extraction
Acquisition Number: 1
Camera Switch: ON
Screen: Screen In
Filter:
Video Gain: x 1
Lamp Switch: ON
First Lamp: 1000 mV
Second Lamp: 1000 mV
Motor Enable: disable
Hardware Reading:
FTN.MTV414
(1 of 1 acquisitions)
Cycle: TOF
SC Nb: 8
Date: 2008/11/11 14:33:01.386128
Image
Horizontal projection
Vertical projection
Legend
Profile
Fit
X [mm]
Y [mm]
Amplitude [a.u.]
Acquisition Type: One extraction
Acquisition Number: 1
Camera Switch: RAD ON
Mire: OFF
Screen: Screen In
Filter: UNREADABLE
Video Gain: x 1
First Lamp: 1000
Second Lamp: 1000
Acquire
Start Monitoring
Stop
Save
Continuous Saving

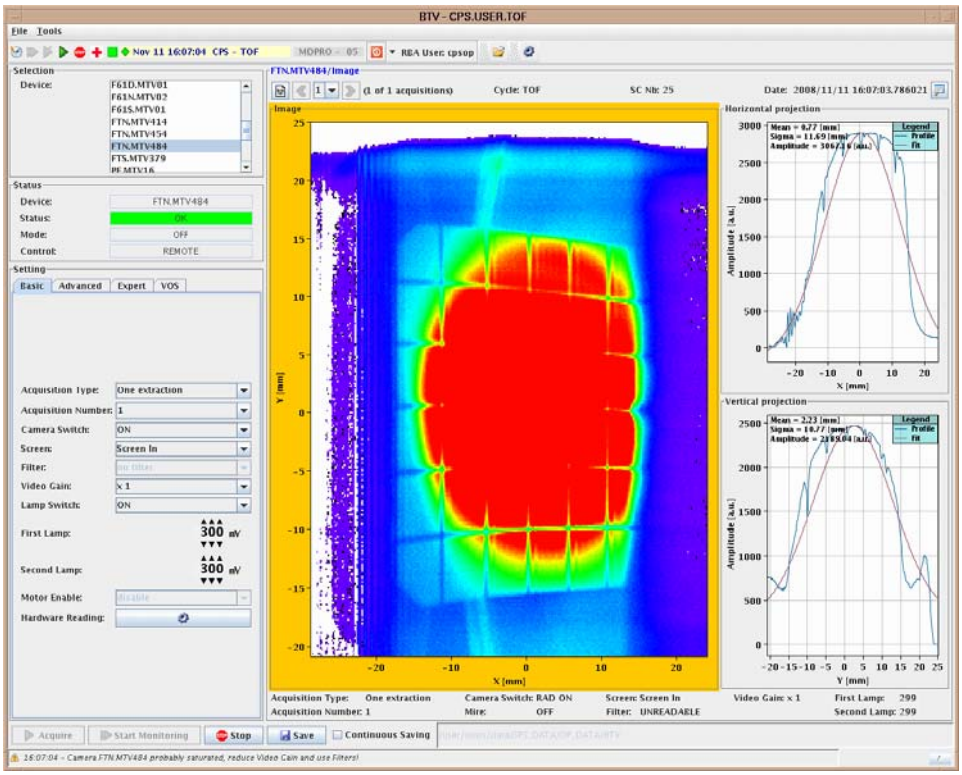

BTV - CPS.USER.TOF
File Tools
Nov 11 14:34:04 CPS - TOF
ZERO - 14
RBA User: cpsop
Selection
Device:
F61D.MTV01
F61N.MTV02
F61S.MTV01
FTN.MTV414
FTN.MTV454
FTN.MTV484
FTS.MTV379
Status
Device: FTN.MTV454
Status: OK
Mode: OFF
Control: REMOTE
Setting
Basic Advanced Expert VOS
Acquisition Type: One extraction
Acquisition Number: 1
Camera Switch: ON
Screen: Screen In
Filter: Out
Video Gain: x 1
Lamp Switch: ON
First Lamp: 600 mV
Second Lamp: 0 mV
Motor Enable: disable
Hardware Reading:
FTN.MTV454
(1 of 1 acquisitions)
Cycle: TOF
SC Nb: 10
Date: 2008/11/11 14:34:03.786450
Image
Horizontal projection
Vertical projection
Legend
Profile
Fit
X [mm]
Y [mm]
Amplitude [a.u.]
Acquisition Type: One extraction
Acquisition Number: 1
Camera Switch: RAD ON
Mire: OFF
Screen: Screen In
Filter: UNREADABLE
Video Gain: x 1
First Lamp: 599
Second Lamp: 0
Acquire
Start Monitoring
Stop
Save
Continuous Saving



The above images were when all screens wer in at the same time creating additional blow up. Now the images for one screen at the time:







Work to be done during the shut down:

- DVT and DHZ power converter/control inversion.

- Review the timings for the trigger for nTOF as it seems that they are happy with nearly everything. Can we simplify ??
- Put filters on the FTN camera's as the images are all saturated for the nominal intensity.
- Check optics of the TT2-FTN line
- Check the alignment of the FTN line w.r.t. the TT2 line.