

Smithsonian Astrophysical Observatory

OIR Division

Inventory List of Instrument Spares

Item	Description	Manufacturer	Part Number	Quantity	Location	Shelf
1	THK X Rail Pair	THK	HSR30R4SSCOM+1560LPM	2	Cabinet A	Top
2	THK Y Rail Spare	THK	HSR20R2SSCOM+940LPM	1	Cabinet A	Top
3	THK X Rail Spare	THK	HSR30R2SSCOM+920LPM	1	Cabinet A	Top
4	Ball Screw	NSK	W2508W-21PGS2X	1	Cabinet A	Top
5	Spec/Celle CCD Dewars O-rings	Green Rubber	Various	Lot	Cabinet A	3
6	CCD Storage Boxes	N/A		2	Cabinet C	3
7	MDC Conflat Gaskets	MDC	191013/GK400	7	Cabinet B	2
8	MDC Conflat Gaskets	MDC	Various Sizes	Lot	Cabinet B	2
9	Positioner Linear Encoder	RSF	MSA2217-620mm	4	Cabinet A	2
10	Positioner Linear Encoder	RSF	MSA2217-720	3	Rack A	3
11	Laser	JDS Uniphase	1101/1201-1 Tested 4/2013	1	Cabinet A	3
12	Positioner Cable Assembly	SAO	MMTS5312-2	1	Cabinet A	5
13	Positioner Cable Assembly	SAO	MMTS-5308-2	1	Cabinet A	5
14	Positioner Cable Assembly	SAO	MMTS-5309-5	1	Cabinet A	5
15	Positioner Cable Assembly	SAO	MMTS5310	1	Cabinet A	5
16	Positioner Cable Assembly	SAO	MMTS5308-1	1	Cabinet A	5
17	Positioner Cable Assembly	SAO	MMTS5312-1	1	Cabinet A	5
18	Positioner Cable Assembly	SAO	MMTS5308-C	1	Cabinet A	4

19	Positioner Cable Assembly	SAO	MMTS5355-2	1	Cabinet A	5
20	Positioner Cable Assembly	SAO	MMTS5308-4	1	Cabinet A	5
21	Positioner Cable Assembly	SAO	MMTS5309-1	1	Cabinet A	5
22	Positioner Cable Assembly	SAO	MMTS5308-5	1	Cabinet A	5
23	Positioner Cable Assembly	SAO	MMTS5309-4	1	Cabinet A	5
24	Positioner Cable Assembly	SAO	MMTS5309-2	1	Cabinet A	5
25	Positioner Cable Assembly	SAO	MMTS5309-3	1	Cabinet A	5
26	Positioner Cable Assembly	SAO	MMTS5311-1 X1 Motor Drive	1	Cabinet A	4
27	Positioner Cable Assembly	SAO	MMTS5311-3 Z1 Motor Drive	1	Cabinet A	4
28	Positioner Cable Assembly	SAO	MMTS5311-2 Y1 Motor Drive	1	Cabinet A	4
29	Positioner Cable Assembly	SAO	MMTS5311-4 X2 Motor Drive	1	Cabinet A	4
30	Positioner Cable Assembly	SAO	MMTS5311-6 Z2 Motor Drive	1	Cabinet A	4
31	Positioner Cable Assembly	SAO	MMTS5311-5 Y2 Motor Drive	1	Cabinet A	4
32	Split Conduit 5/8"	Radio Shack	N/A	~25'	Cabinet D	3
33	4" Wide x 1/8" Thick Insulating Foam	Self Stick	N/A	Roll	Rack A	Top
34	Ring E-Stop Bypass Cable	SAO	N/A	1	Cabinet A	1
35	WFS Cable	SAO	WFS2-6140	1	Cabinet A	4
36	Sun Monitor/Data Cable	Sun/SAO	N/A	1	Cabinet D	5
37	Large Heavy Duty Extension Cord	N/A	N/A	1	Cabinet D	5
38	Emergency Stop Cord	SAO	MMTS-5363	1	Cabinet A	4
39	Light Box Cable Length	Alpha Flex Cable	65203CY 3 Conductor 12AWG	1-12' 1-16'	Cabinet D	5
40	Flex AC Cable	Alpha Flex Cable	65203CY 3 Conductor 12AWG	Partial Spool	Cabinet D	Top
41	Hectospec/chelle sample fibers	SAO	Prototype Fiber Group	1	Rack B	Top
42	Spare Fiber Group 421-425	SAO	Spare Fiber Group	1	Rack B	Top
43	Plastic Coated 1/8" Steel Cable	N/A		50'	Cabinet D	2
44	N2 Fill Hose?	SAO	Insulated	?	Cabinet D	3
45	3/8" x 3' Stainless Bar Stock	N/A	N/A	3'	Rack A	2
46	1/4" x 2.5' Stainles Bar Stock	N/A	N/A	2.5'	Rack A	2

47	E-Stop Control Box for Positioner	SAO	N/A	1	Cabinet A	1
48	Box of Assorted Unistrut Parts	Unistrut	N/A	1 Box	Cabinet D	2
49	Hectospec Fiber Chain Parts	Kableschlepp	N/A (note – some used 12/08 Parts for old 3’ section sent to Cambridge 2/09)	6 Boxes	Rack A	3
50	Megacam Filter & Guider Glass	SAO	N/A	1	Cabinet C	3
51	Positioner Guides	SAO	#4 & #6	3	Cabinet A	1
52	Large Energy Chain Parts	Kableschlepp	Large Not Fiber Chain	1 Box	Rack A	3
53	Rack Mount Chassis	N/A	N/A	2	Rack A	3
54	Trans-Aire Rack Mount Blower	Bud	B-25A	2	Rack A	3
55	Small Box of Self Stick Black Out	N/A	N/A	Small	Cabinet D	3
56	Imperial Eastern Impolene Tubing	Imperial Eastern	3/8” O.D.	1 Roll	Rack A	Top
57	Megacam Spares Filter, Shutter, Dewar Parts	SAO etc	Various -NB Box of adapters sent to Cambridge 1/09	1 Lot	Cabinet C	2
58	House Fan	N/A	N/A	1	Rack A	4
59	Vacuum Elbow & Fittings	N/A	N/A	1 Lot	Cabinet D	2
60	Gateway P5-90 PC & Monitor	Gateway	P5-90	1	Cabinet C	5
61	Hectochele Grating Aperture Cover	SAO	Obsolete Item	1	Rack B	2
62	CST Heavy Duty Tripod	CST	Tripod	1	Behind Pipes	
63	Spec/Chele Cryo Lines Spare	Kadell Engineering	N/A	1	Rack B	2
64	Spare Chelle Grating Controller	Newport	MM4006-OPT	1	Rack B	2
65	Ball Screw for Positioner	NSK	W3207WF-9829	1	Rack A	2
66	Box of Assorted PC Cables	Various	Various	1 Box	Cabinet D	5
67	Igus Chainflex	Igus	CF211 Old Megacam 5311-3A Cut Lengths	2 Lengths	Cabinet C	4
68	F-5 Wavefront Sensor Plumbing and Hose	SAO	N/A	1 Box	Rack B	4
69	Megacam Misc Green Tub	SAO	Various	1 Box	Cabinet C	4

70	Positioner Support Platform	SAO	SAO	1 Unit	Rack B	4
72	Not so Dummy Fiber Power Supplies	SAO	N/A	1	Cabinet A	1
73	Non Reflecting Floc Paper Black	?	N/A	2 Rolls	Cabinet D	2
74	Box of Wire Ties	Misc	Misc Sizes	1 box	Rack B	3
75	Fiber Optic Network Cables	N/A	N/A	1 Box	Cabinet D	4
76	3/8-24 x 2.5" Socket Head Cap Screws	Holo Krome	ZP1C73118	<50	Cabinet B	1
77	3/8-24 x 1-1/4" Socket Head Cap Screws	Holo Krome	ZP1C73108	<100	Cabinet B	1
78	Upper/Lower Assembly Guides	SAO	N/A	3	At MMT	1
79	Plastic Box of Dowel and Roll Pins	Misc	Misc	1 Box	Cabinet B	1
80	Hecto Positioner Telescope Bolts	N/A	N/A	7	Cabinet A	1
81	Plastic Box of Misc Washers Special Purpose	N/A	N/A	Lot	Cabinet D	1
82	#10-32x1/4" Button Head Screws	Unbrako	1105400	2 boxes < 100	Cabinet D	1
83	#10-32x5/8" SHCS	Unbrako	1117765	1 Box < 100	Cabinet D	1
84	Nye Index Matching Optical Couplant Kit	Nye	N/A OUTDATED 11/2003	1 Kit	Cabinet A	1
85	Hex Low Head Cap Screw 1/4-20x3/4	Raycarl	20042	< 100	Cabinet D	1
86	#8-32x 1/2 Flat Socket Cap Screws 316SS	?	?	2 Boxes of 10	Cabinet D	1
87	#6-32 x 1/2" Flat Socket Cap Screw	?	?	1 box of 100	Cabinet D	1
88	1 Can Flat Black Spray Paint	Painters Touch	1976	1 12oz Can	Cabinet D	1
89	Yellow Container of Misc Hardware	N/A	Woodscrews, assorted nuts washers etc	1 Box	Cabinet D	2

90	3/8-24x2.5" SHCS	Copper State Bolt Co.	10SHFP-0380250	< 50	Cabinet D	1
91	#4-40 x 3/8 Socket Set Screw Knurled Cup Point	Unbrako	17899	< 100	Cabinet D	1
92	1/4-20 x 3/8" SHCS SS 18-8	Unbrako	05407	< 100	Cabinet D	1
93	3/4-16 x 2-3/4 Socket Cap Screw	Unbrako	66245	~25	Cabinet D	1
94	3/4-16 x 2 Bolts & Washers	?	?	~20	Cabinet D	1
95	Andy Jury Rigged Th-Ar Test Fixture	SAO	N/A	1	Rack B	3
96	Leybold Vacuum Gage	Leybold	For Andy	1	Rack B	2
97	Plastic Sheet	N/A	N/A	none	Cabinet D	3
98	Empty Shipping Box Rack PC Chassis	SAO	For John Roll	1	Cabinet C	Top
99	Empty Shipping Box APC UPS	APC	For John Roll	1	Rack B	Top
100	Empty Trifurcated Fiber Box	SAO		1	Rack A	Top
101	Chelle Mirror Lift Fixture	SAO	N/A	1	Rack B	4
102	Spec/Chelle Dewar Lift Fixture	SAO	N/A	1	Rack B	4
103	Hecto Positioner XY Motor Maintenance	SAO		1 Box	Cabinet B	3
104	Gage Block Set Large			Set	Cabinet B	1
105	Gage Block Set Small			Set	Cabinet B	1\
106	Gage Pin Set			Set	Cabinet B	1
107	Fiber Vertical Shelves	Large Gray Box	See Inventory	Box	Rack A	2
108	Minicam 4" 15" Filter Inserts	SAO	N/A	Box	Cabinet C	3
109	Gimbaz gray box	Small Gray Box	See Inventory and comment	Box	Rack A	2
110	Kaman Sensors	Kaman Inst.	KD2300-.5sum	1	Cabinet B	1
111	294 Dummy Buttons	SAO	(two used 1/09 trip)	Set	Rack B	top
112	6 Not-so-dummy Buttons	SAO		Set	Rack B	top
113	250um Alignment Fibers	SAO		Set	Rack B	top
114	Spare Fiber Group 336-340	SAO		Set	Rack B	top

115	Fiber Thermal Break Clamps vertical shelf clamps	Small Gray Box		Box	Rack A	2
116	Stancor Disc Thermostat for Megacam	Stancor	STO-110	4	Cabinet C	3
117	Guider & Misc	Small Grey Box	See Inventory	Box	Rack A	2
118	X&Y Axis	Small Grey Box	See Inventory	Box	Rack A	2
119	PMAC Related Parts	Large Grey Box	See Inventory	Box	Rack A	2
120	Z Axis	Large Grey Box	See Inventory	Box	Rack A	2
121	WFC Test Cables	Large Grey Box	Cables	Box	Rack A	3
122	ACE Controls, Shock Absorbers	Small Grey Box	See Inventory	Box	Rack A	2
123	Megacam Switch Box Cover?	SAO	5.5" x 3.25" White Box	2	Cabinet C	3
124	Cardboard Box of Cat-5 and 10BaseT Network Cables	Misc	Various Lengths	Box	Cabinet D	top
125	Box Network Routers Switches Media Converters	Cardboard Box	Various Network Adapters	Box	Cabinet D	top
126	Fiber Button Acylic Tubes	SAO	For Protecting Fiber Probes	5	Cabinet B	2
127	Box of Power Strips & AC Cables	Cardboard Box	Various	Box	Cabinet D	5
128	Igus Flex Chain Parts	White Cardboard	Various Parts Labeled M. Mueller	Box	Rack A	4
129	Sylvania EFP Incand Flat Lamps & Sockets	Sylvania	EFP 12V-100W	10	Cabinet D	3
130	Megacam Lifting Eyes, Rings Etc	Red Box		Box	Rack B	3
131	Very Large Megacam Grey Box	V. Large Grey	Various Megacam Parts	Box	Rack B	3
132	WFC ADC Prism Fixture Plates	SAO	2 Plates	2	Rack B	4
133	White Portable Track Lights	N/A	Set of 3 lights	2	Cabinet D	3
134	Blue Rubbermaid Megacam Toolbox	SAO		Tools	Rack B	3
135	VME Spare Rack			1	Rack A	3
136	3.5" Lifting Pulley			1	Cabinet D	2
137	Yellow Rope			2 pcs.	Cabinet D	2
138	Megacam Cart Extension Legs	SAO	White Pieces		Rack B	5

139	Wavefront Sensor Lifting Parts	Small Grey Box	Heavy Stainless	Box	Rack B	4
140	Kneepads			2	Cabinet D	4
141	Tub of Velcro	Clear	Adhesive Back	Box	Spec Ante	3
142	MESA DAT Tape Drive			1	Cabinet C	1
143	Pulizzi Power Controller		3 small (1 old), 2 large (1 used)	5	Rack A	3
144	Rack Mount Fan Assembly		1 Boxed 1 Not Boxed	2	Rack A	3
145	Gripper Stepper Motors				Cabinet B	1
146	Acrylic WFC Shield	SAO		1		
147	Handles For Spec/Chelle Dewars	SAO		4	Cabinet B	2
148	Wavefront Sensor Misc Parts	Large Grey Box		Box	Rack B	4
149	Blue Tupperware Megacam CCD Controller Spare Parts		plus EDINS backplane connectors (4M, 4Fa, 2Fb)	Box	Rack B	3
150	Wire Rack				Rack A	5
151	WFC Cart Legs				Rack B	5
152	Wave Front Sensor PC Cables	Cardboard Box		1	Rack B	2
153	Clevis Derotator Struts	Small Grey Box			Rack A	5
154	Hectochelle Fill/Vent Lines		Large Metal Tubes	2	Behind	Pipes
155	Chelle Camera Mirror Ship Cover	SAO	Large Black ½" Thick Cover	1	Between	Racks
156	Spec Corrector Cover	SAO	Aluminum	1	Between	Racks
157	Spec Camera Mirror Cover	SAO	Aluminum	1	Between	Racks
158	WFS Firewire CD Rom Backup Drive		See John Roll	1	Cabinet C	2
159	WFS Motherboard		See John Roll	1	Cabinet C	2
160	WFS CPU		See John Roll	1	Cabinet C	2
161	WFS 2.5" Hard Drive		See John Roll	1	Cabinet C	2
163	WFS Memory Stick		See John Roll	1	Cabinet C	2
164	Linksys 8 Port Gigabit Router		See John Roll	1	Cabinet C	2
165	Radeon Dual Monitor PC Card		See John Roll	1	Cabinet C	2
166	MMTI Yoke Room Rack Computer		See John Roll	1	Cabinet C	2
167	MMTI Yoke Room Rack Hardware		See John Roll	1	Cabinet C	2
168	USB Sound Devices		See John Roll	1	Cabinet C	2

169	CCD Data Fiber		See John Roll	1	Cabinet C	2
170	Mesa Dat Tape Drive		See John Roll	1	Cabinet C	1
171	KVM 8 Port KVM Switches		See John Roll	2	Cabinet C	1
172	Dual Monitor 2 Port KVM Switch		See John Roll	1	Cabinet C	1
173	2 Port KVM Switch		See John Roll	1	Cabinet C	1
174	6' VGA/Keyboard/Mouse Cables		See John Roll	6	Cabinet C	1
175	Radioshack 3-12V AC Power Bricks		See John Roll	1	Cabinet C	1
176	White Section of 3" Angle Iron	SAO	For Megacam	1	Rack B	4
177	Floor Wire Protector	Tredtrak		1	Between	Racks
178	Length of Rope			1	Cabinet D	2
179	¼" 200 psi Compressor Hose	Speedaire	Very Long Length	1	Cabinet D	3
180	Tent Blackout Material		Black Box	1	Rack A	4
181	Box of Black Hose	Cardboard Box	3 Lengths	3	Cabinet D	2
182	ADC Drive Spare Motor			1	Cabinet B	4
183	ADC Drive Spare Gearbox			1	Cabinet B	4
184	ADC Drive Spare Gear			1	Cabinet B	4
185	ADC Spare Long Shaft			1	Cabinet B	4
186	ADC Spare Short Shaft			1	Cabinet B	4
187	ADC Drive Gear Spare			2	Cabinet B	4
188	ADC Drive Encoders			4	Cabinet B	4
189	Door Sweep			1	Between	Racks
190	Black & Decker Workmate Table			1	Rack A	4
191	5 Minute Epoxy			1	Cabinet D	2
192	Cotton Swabs			1	Cabinet D	2
193	Positioner e-stop Box & Upper to Lower Unit Cable			1	Rack A	4
194	Hectospec 5' Cable Set			1 set	Rack A	3
195	8 port Gigabit Switch	Cardboard box	Linksys	2	Cabinet D	Top

196	Beard Nets		7388	1box	Rack A	2
197	Caps/Hair Nets		7387 W 21	1 box	Rack A	2
198	Vacuum Pump Station	MDC/VARIAN	From Megacam		Between	Racks
199	Absorbent Pads	PIG		~40	Cabinet B	1
200	Gasket Material	Joint Sealant	1/8" x 100'		Cabinet B	3
201	Gasket Material	Joint Sealant	3/16" x 75'		Cabinet B	3
202	Gasket Material	Joint Sealant	1 / 4" x 50'		Cabinet B	3
203	Power Meter @ MMT	FLUKE	435/003		Cabinet B	5
204	BNC Video Cable	L-com	CC 59A-50	5x50'	Cabinet C	1
205	BNC Video Cable	Belden		6'	Cabinet C	1
206	BNC Video Cable	Belden		15'	Cabinet C	1
207	BNC Barrel Connectors			7	Cabinet C	1
208	CCTV Video/Power Cable w/adapters	MG	AVC-100	1	Cabinet C	1
209	Tom Gauron Tool Box				Rack B	2
210	Shutter Motor Controller	Copley	5424AC	1	Rack B	3
211	Gripper assemblies	SAO	In box	2	Cabinet B	3
212	Button kit – Magnets, glue, test fixture	SAO			Cabinet B	2
213	6 mil Plastic Sheeting in 2 boxes	Husky/HomeDepot	6 mil x 20' x 100'	~120' left	Rack A	3
214	Temperature Sensors 2 & 3 lead					
215	Guider Solenoid-w/TempS #3	SAIA Burgess	U191993 033	2	Cabinet B	4
216	Guider Motors with gears & 2 TempS	PowerMax	M21NRXB LNN 00	3	Cabinet B	4
217	Guider motor gears - extra			5	Cabinet B	4
218	Plastic Sheeting	Super Woven		16 x 100'	w/tool box	
219	Fiber Chain		6 new Nub end links		Rack A	4
220	Fiber Chain		5 new socket end links		Rack A	4
221	Fiber Chain		29 machined links		Rack A	4
222	Fiber Chain		16 standard links		Rack A	4
226	Fiber Chain		17 last resort only links		Rack A	4

227	Fiber Chain		7 aluminum stays		Rack A	4
228	Fiber Chain		1 bend constraint stay		Rack A	4
229	Fiber Chain		3 sample bend radii sections		Rack A	4
230	Fiber Chain		1 18" chain section		Rack A	4
231						
232	WFS				Rack B	
233	external slim DVD writer					
234	Cable Bundle	Takeout	D37-M, D9-F, Cat 5, Molex 2x3			
235	Cable	Takeout	RS232-D9F			
236	Connector	Takeout	D37-M Cut Out			
237	Connector	Takeout	D25-M Cut Out			
238	Connectors	Takeout	Box w/2 Cat 5 connectors			
239	Mainboard Logic Supply	VIA EPIA	10000EG Mini-ITX			
240	Mainboard	takeout	Blown caps			
241	Mainboard	takeout	Blown Caps, Fan on CPU			
242	SATA Cable			2		
243	Ribbon Cables			2		
244	USB Cable					
245	Hard drive	Fujitsu	MHR2040AT			
246						
247	lg. Gray box, PMAC/Hardware boards	left rack, middle			Rack A	2
248	MVME 167-33 B	Motorola		1		
249	Motorola CPU board	Motorola		1		
250	Delta Tau Expansion Boards			4		
251	PMAC VME boards			4		
252						
253	Hecto CCD Controller board	SAO		1	Rack B	2: bin
254	Hecto CCD Controller board	SAO	board is missing EPROM	1	Rack B	2: bin
255	Chelle CCD ADC board	SAO	HAD1& HAD2	2	Rack B	2: bin
256	EDT board	SAO / EDT	WW0059 I/O 3C	1	Rack B	2: bin

Smithsonian Astrophysical Observatory

OIR Division

Inventory List of Instrument Spares - @ IOTA

Item	Description	Manufacturer	Part Number	Quantity	Location	Shelf
1	2 ton Jackstand	Big Red		5	Floor	
2	Siphon Pump 6' 3/8" ID tubing	Harbor Freight	03290	1	pool	
3	Siphon tubing 3/8" OD tubing	Ace		30'	Pool	
4	Sling 12500# rating	Wear-Flex	EN2-0902 x 10 ft	2	Pool	
5	Optic Washing Liquid Container	Ace	Kiddie pool	1	Floor	
6	Corrector Lifting Bracket: top	SAO		1	Floor	
7	CLB: side pieces	SAO		2	Floor	
8	CLB: Corrector interface	SAO		2	Cabinet A	4
9	CLB: Extra fasteners	SAO		Several	Cabinet A	4
10	CLB: Plexiglass shield	SAO		1	Floor	
11	Ethyl Alcohol 200 Proof Anhydrous	Pharmco-AAPER	111000200	4x1 gal	Cabinet F	2
12	Actuator Boxes w/ cable & Board	Newport	for Ed Hertz	4	Floor	
13	Actuator Boxes w/o cable or board	Newport		3	Floor	
14	Snappy Computer Boxes		For John Roll	2	Floor	
15	Anionic Water	Water Maid	From Donahue's -Green Valley	3x3gal	Floor	
16	Motor Controller XorY- Take out-	Copley	5424 AC	1	Cabinet A	3
17	Motor Controller Gimbal	Copley	421 Labeled 4	1	Cabinet A	3
18	Dead HCL	Photron	Th-Ar & HeNeAr	10	Cabinet B	1

19	Old Snappy	PC's for Everyone		1	Cabinet A	3
20	Fiber Patch Panel	SAO	6 Unions	1	Cabinet A	3
21	KVM Cable		50' (?)	1	Cabinet A	3
22	Monitor Cables		6'	3	Cabinet A	3
23	KVM Cables		6'	4	Cabinet A	3
24	Fiber chain external supports	SAO	used to service chain	4x2 pcs	Cabinet A	5
25	Fiber Thermal Break Comb	SAO	not used		Cabinet A	5
26	Set screws for "		obtained 7/2009	175	Cabinet A	5
27	SAO TRIO mother board spare	TYAN	S2882-D	1	Cabinet B	4
28						
29	old SAO TRIO motherboard	TYAN	S2882	1	Cabinet B	5
30	WFS motherboards - dead		D33032 LGA775	2	Cabinet B	5
31	Hard Drives for WFS computer	Western Digital	WD800BEVS, WD400BEVE	2	Cabinet B	5
32	Hard Drives for WFS computer	Fujitsu, Toshiba	MHR2040AT, MK2018GAP	2	Cabinet B	5
33	External DVD Writer	Samsung	SE-S084	1	Cabinet B	5
34	Smart UPS	APC	Batteries died & removed	1	floor	
35	MMIRS calibration bracket	SAO	Al Space Frame	1	floor	
36	MMIRS Cable/Coolant Spool	SAO	spool with cables & Hoses	1	floor	
37	MMIRS Hardware	Ubrako	mounting bolts		floor	
38	2' x 2' x 2' crate - not assembled	ULINE	shipping container	1	floor	
39	Monitors	? & SUN	was for Radar & Clark	3	desk	
40	Computer rack mount hardware			many pcs	desk	
41	Oscilloscope	Tektronix	475 analog	1	desk	
42	Oscilloscope Probe	Tek		1	desk	
43	Spray cans		for Corrector Cleaning	3	floor	
44	Detergent	Liquinox	2 partials (expired 3/13)	1.5 liter	floor	
45	water / detergent mix		1% solution	5 liter	floor	
46	Spray Bottles			5	box	
47	Expanded PTFE Gasket	Joint Sealant	1/4" x 50', 1/8" x 100', 3/16" x 75'	3 spools	box	
48	Ethyl Alcohol			4 x 1 gal	Ext. Bldg.	

Inventory of Loft area

Cabinet top // Top of Bins // Bin 1 // Bin2
Tool kit 1 // Top Shelf // Shelf Two // Shelf Three

Top of Cabinet

22 awg stranded white hookup wire 100'
20 awg Black Solid hookup wire 100'
20 awg Red Solid hookup wire 100'
Barrier Block - 8 position
50 Ω - 25 W Rheostat
75 Ω - 30 W Resistor
5.36 Ω - 30 W Resistor
8 Ω - 30 W Resistor
3x 300 Ω - 10 W Resistors in Parallel

dymo label cassette
9V batteries [2]
AA batt [16]
red 2" wide vinyltape 3m 764
electrical tape 13 rolls red, blue, orange, green, yellow
Spare UHF Encoder Cable W/3 connectors
Bulk UHF Encoder cable
10 conductor, Black, 2x25', 5mm OD
387949-01 60' & 12'
IGUS Flex cable CF2-01-12 12x

Top of Bin Stack

Pulizzi unit Intelligent Power Controller IPC3402

Tool Kit

light meter attachment

wire stripper/cutter/crimper tool

tools: soldering iron, pliers, screw drivers, hex keys

wire strippers [various]

desoldering braid

electrical tape

teflon tape

clip leads

cheater

ty-wraps

Grounding wrist strap

Bin 1 Fish tape & Gloves

Tuff Grip Steel Fish tape 100' x 1/8"

Pacific Scientific Stepper Motor (long shaft – ADC) water damage?

Intelligent Motion Systems IM804 module - labeled dead

Cable ty tool

6' power cord unterminated [2]

Preliminary draft – Fiber positioner connector pinout diagrams ~20 pages

wire stripper

electrical tape [2]

work gloves [1 pr]

Bin 2

BLDC Motor 160VDC 1HP 7200 RPM Eastern Air Devices w/ cable
Bundle of cables – some with 9 pin D connectors, one with load resistor
Industrial Devices S6002 microstepping drive

Targus case with PC Scope items componets, leads, software

- Flashlight (no batteries)
- SI 233843 propert tag
- DB25 Cable M-F
- DB9 Cable F-F
- Cat 5 Cable
- DB9 -> Cat 5 cable
- Gauron Data CD's
- Gateway system CD
- DB9 to Ribbon cable
- DB9 FF Gender changer
- Walkie-Talkie Radios (2) and Charger
- Cat 5 -> DB 25
- DB9F > DB25 (Null Modem)
- DB25 > Header 26
- Altera Dongle & Byte Blaster
- Oscilloscope Probe

Bin 3 – TG Electrical/Test equipment

- DMC Pin Crimper (for HD15 ?)
- BK Cable tracer – injector and detector
- BK Network Cable Analyzer
- Power Sentry Surge Suppressor plug strip
- VME/VXI Pre-Processor breakout Board
- 60 pin/ribbon and 60 pin SCSI connector breakout boards

DB9 M/F cable

Computer Optical Products Encoder W/DB9 connector

DB9M to RJ6 adapter (labeled RC7 Rev C), DB9F to RJ6 adapter (labeled PC serial port)

Tektronix Scope Probes (2) – P6111B, P6109B

DB9 F/F 3' cable labeled Pulizzi #2

DB9F to 2 wires

DB9F to circular connector labeled Hall

DB9F to circular connector labeled LIM

DB9F to smaller circular connector unlabeled

DB9F to 3 switches

Banana to Banana red lead

Bin 4

WFC motors: Powermax II M22NRXB-LDF-M1-00[3]

(1 with encoder CP550-1000-8MM 3795)

D8 Connector M-F

D8M -> 2 D4+5 F

D8F -> pins and second connector.

8 wire jumpers 2/ connectors [2]

HD15 with 8 wires

Top Shelf – Positioner Spares

MMTS 5358-3 PX23 to PJx23 Lower Temps Ext. cable

ST190 Stancor Thermostat (5)

White two position connectors [10]

Box w/PWB FP GL Encoder conditioning board & RSF Module (out on 4/26/13, Ante room for now)

Box with RSF module

Box w/Spare VDA1 Positioner House Camera Video Amp

Lambda Power Supply PXF4024WD12 24V to +/- 12VDC (for EP box/Cameras) [2]

Vicor box w/

Vicor ripple attenuator modules VI-RAM-E1 410405050750 [3]

dc-dc module power one HAS 0450YH-AN (digi-key 179-2140-ND) 24Vin 12Vout 50W [2]

dc-dc module power one DFC6U5S15 (digi-key 179-1004-ND) 5Vin 15Vout 50W [2]

Vicor box w/ spare LVPS for EP box VI-RJ1022-EYZZ[2]

Copley Controls Connector Kit.

Copley motor Controller Model 145 – Power Dissipator [2]

Copley motor Controller Model 5424AC [2]

Copley motor Controller Model 421 (gimbal axes)

a - Registered fault 9/11/11

b - R2P - Swapped 5/20/10, probably fine

c - New units [3]

VIPC 618 configured for guider

Relays Potter & Brumfield KUMP 14AT8-240 (2)

Larger Relays Potter & Brumfield PM 17AY-240 9944 [3]

Test Encoders

Daido corp H48 Incremental 2500 C/T FP Lin

Copley Optical Products550-2588L 0897 P/N 32-0000-0036

Box w/Temperature Control D board

& [2] DC-DC converter modules Power one DFA20E12S12 20W 12V- 12V {179-1034-ND} for camera [for EP Box]

&

Digikey USB0805CMS_ND Transient Voltage Suppressor Array BiDir [7]

Intelligent Motion System IM805 [4]

Intelligent Motion System IM804 [2 mounted on plate with wires attached]

Combo D connectors 626-1117-ND, 3009W4SCM 99A10x [3]

+ pins -12-14AWG SCD 132C10029X 626-1145-ND [10]

Positronic connectors for Video Cable

FS4101D, FCC4102D, MCC4102D, MS4012D, MC4013D

(larger supply in CB tool kit)

Molex terminal pins

Clarostat S 943-51W Opto switches [15] { Need 941 series. }

Fiber Positioner Test Cables –

XY Brake(2),

Z Brake,

XY Lin. Enc Breakout,

DB15 F (P11) > spades

DB15 M (J11) > spades

GL to EP

EP to RSF Breakout

DB9F Brake Connector to red and black leads

GL Lim breakout.

Clip leads [5]

2nd Shelf – WFC spares, SBS Greenspring

Circuit board MMTC OV5401/5201 unpopulated WFC controller board

Plastic cases VIPC618 [2]

SBS box 1 IP-OPTOIO-8 91415341 Rev C SN 6700840
 IP-OPTOIO-8 91415341 Rev C SN 6700842
 IP-OPTOIO-8 Rev C 1.0 SN 66106278
 IP-OPTOIO-8 Rev C 1.0 SN 66106262
 IP Digital48 98117 Rev A 2 SN 66183198
 IP Digital48 98117 Rev A 2 SN 66183199

SBS box 2 SBS Carrier VIPC 618 Empty

SBS box 3 IP Stepper 91410852 Rev B SN 66201353
 " SN 66201347
 " SN 629404
 " SN 629422
 " SN 635651
 " SN 635646

IP-OPTIO-8 SN 66106240

SBS box 4 VIPC 618 w/2 IPStepper daughter cards
SN 66030730, SN 66030732

SBS Box 5 IP-Stepper 94038 SN 66201351 with X on back
 IP-Stepper 94038 SN 66201352
 IP-ADIO 97003P SN 66195986
 IP-OPTOIO SN 66106261

Astec LPT63 WFS LVPS [3] for Wide Field Corrector

SBS IPstepper Rev B 94038 SN 65054766

Bag with Power supply and HD15F to 6 BNC's for encoder breakout (7/5/06)

1/4-20 screw posts (used on e-chain bracket) [4]

WFS e-chain bracket parts - 2 mounting triangles, Square stock extender and connection to e-chain

3rd Shelf – Stepper systems

Spare Spec Filter Changer Stepper Pacific Scientific BE0200 E22nrft-ldn-M1-00

Intelligent Motion System Connectors PLG-R 8 position, screw tighten [12]
6' High Density D cables for SBS Greensprings cards [5]

Motor Control power supply IMS ISP200-7 [5]

Motor Control Module IMS IM805[3]

A05043281, A26031131, A01010849

Motor Control Module IMS IM804 Labeled GR1 [1]

Power One 15V supply HB-15-1.5-A for stepper system

Power One 5V supply HB-5-3/OVP-A

Stepper F/F Rev. 3 – Circuit board on Aluminum plate 20" x 20"

Encoder 1 HEDL-5640 for corrector

Elpac BFS 500-48 48 Volt, 10A power supply

Bag w/Spec/Celle Altera PLD's, opto couplers, Hamlin switches,

4 ch optocoupler PS 2501-4-ND [3]

4 ch optoDarlington PS 2502-4-ND [3]

Resistor Sip 220Ω, 2.2KΩ, 1KΩ and 470Ω 10 each

Spectrograph & Megacam limits

Hamelin [7] 3 disk magnets HD 153-ND, another 3 longer magnets 57135-000-ND

megacam 3 waySPDT Hamelin 59135-030 [4]

Spectrograph 2 way Hamelin 59135-010 [7]

2 wire NO switchHamelin 59140 with 1 magnet

Phoenix Contact DB25F breakout box with DB25 M/M 6' cable

Altera PLD [3] with extraction tool

used for step control with Spec, Celle, Guider, EP Box

Populated 10K 1% resistor carrier [6] in bag labeled Temp

hall sensor for High Speed Shutter A3122LUA [6]

4th Shelf – Megacam, Wave Front Sensor spares

Mega Key Fix

- bag label: {J153A -3, P163A4, P53A-3, P63A-4}
- Amphenol MS27484E16F35SC 0351 1231616 cable connector
- Amphenol MS27484E16F35SB 0351 1231612 cable connector
- Amphenol MS27474E16F35PB 0352 1231610 bulkhead connector
- Amphenol MS27474E16F35PC 0351 1231614 bulkhead connector
- Glenair 380FS103M1616A3C 0402 06324 Cable jacket (3)
- Glenair 380FS001M1812A3C 0402 06324 Cable Jacket (2)
- Glenair 06324-661-003J16D3.5-01 9921(2) cover
- Glenair 06324 JAN MS27511F16N 9948 (3) cover (1 used)
- Glenair 06324 JAN MS27511F18N 9934 cover
- Glenair 06324 JAN MS27510F18C 9903 cover
- Glenair 06324 JAN MS27510F16CL cover
- Amphenol MS27484E18F96PA 0403 1231619 (2) cable connector
- Amphenol MS27474E18F96SA 0407 1235619 Bulkhead connector
- ESC MS27511F18C8825 cover

Topbox Motors, brakes, Encoders box

- USA digital encoder
- RBEHE-01812-A00, Electroid 973-467-8100-SSB 34 88 24V
Motor & Brake heated to 400F works but state is questionable
- RBEHE-01812..., Electroid 973-467-... 24V Motor & Brake New
- 5 position Motor connector
- PC5 IC & Connector
- 10-605 ITW BEE Leitze Half Moon Keys [15]

WFS torroid XFMR Hammond 182S24

Box w/ Power off brake 0261-0118-0 44 MFSB-15-6-115V (2)

Magnecraft W78ARCSX-11 relays (3) for WFS

LabJack U12 IO unit DB25F, BREAKOUT and USB (2) Spare for units in WFS

Copley Model 5321 Motor controller for WFS

WFS I/F PWB spare

WFS IF PWB unpopulated

Puntino Parts

- OPB360T51 opto interrupter
- 304-560 opto interrupter [2]
- 260-9407 LED [2]
- Spare Printed Wire Board with MC68HC711E9CFN2

Warner Electric P/N 6013-448-001 Model CBC-160-1N -Clutch Brake Control

EP Control unit spare components (all uCKT)

P/N	Description	Pacakge	DGKY	Mouser	Qty	Ref
AD558JN	uP-Compat 8bit V-OUT DAC (ADI)	Dip16	AD558JNZ-ND		[5]	U32, 33, 34
AD590KH	2 Terminal Temp XDCR (ADI)	TO-52	AD590KH-ND		[2]	U28
AD7572AJNZ03	LC^2MOS HS 12bit A/DC	Dip24	AD7572AJNZ03-ND		[2]	U23
CAT93C46L	1K-bit Microwire Serial E2PROM	Dip8	Cat93C46LI-G-ND	698-CAT93C46LI-G	[5]	X2A
CD74ACT174E	HEX D-Type FF W/CLR	Dip16	296-32984-5-ND	595-CD74ACT174E	[3]	U29
CD74ACT574E	Octal D-FF W/3-state	Dip20	206-33004-5-ND	595-CD74ACT574E	[3]	U13
ADG508FBNZ	CMOS Analog Multiplexer 8x1 (ADI)	Dip16	ADG508FBNZ-ND		[12]	U4-20,22
DS80C320QCL	MCU HI SPEED 33 MHZ	44PLCC	DS80C320-QCL+-ND	700-DS80C20QCL	[2]	U7
ILQ5	Quad OptoCoupler	Dip16		782-ILQ5	[5]	U2, 3, 31
LM2594N-5.0	Reg Buck 5V 0.5A	Dip8	LM2594N-5.0/NOPB-ND	926-LM259...	[2]	U38
LM308N	Op Amp (NSC/TI)	Dip8	{Jameco 23464}		[3]	U24
LM311P	Diff Comp W/Strobe (TI)	Dip8	296-1389-5-ND	595-LM311P	[5]	U2, 36, 37
LM324AN	Quad Op Amp (TI)	Dip14	LM324ANNS-ND	595-LM324ANE4	[2]	U30
LM358P	OpAmp Gp 700KHz Dual (TI)	Dip8	296-1395-5-ND	595-LM358PE4	[5]	U21, 25, 26
MAX233	2DVR/2RCVR RS232 5V (MAX)	Dip20	MAX233CPP+G36-ND		[2]	U1
MAX705	MPU Supervisory Circuit (MAX)	Dip8	Mas705EPA+-ND	700-MAX705EPA	[2]	U6
SN7406N	HEX Inverter (TI)	Dip14	296-1435-5-ND		[2]	U12
SN7407N	HEX Buffer/DVR W/ OC HV output (TI)	Dip14	296-1436-5-ND	595-SN7407N	[2]	U35
SN74ACT73N	Octal D Transp Latch 3-State (TI)	Dip20	296-27984-5-ND	595-SN74ACT573N	[5]	U4, 5, 8
PVN012AP	SSR Photovo Mosf 20V (IR)	Dip6	PVN012APBF-ND	942-PVN012APBF	[7]	K1-5

no spares

AM27512	uCKT, 65536 x 8bit UV erasable PROM	Dip28-600		[]	U9
EPM7032LC	600 Gate Max 7000 CPLD 32	44PLCC	544-2284-5-ND (N/S)	[]	U11
RAM32KX8	MEMORY	Dip28-600		[]	U10

5th Shelf – MISC

- Pulizzi IPC3402-Net + 2 power cords
- Ferrite cable clamp – Fair-Rite # 0443164151 (3)
- Stancor STO 140 disk NO thermostat
- Stancor STO 175 disk thermostat
- Fiber Back Light Spares [2] with 1 mounting arm
- OPTIK 83F1146 OPB360T51 opto interrupters (4)
- Panavise
- Long throw vise
- EDAS Ethernet to Serial
- 50 pin DB-50Micro breakout box
- Orion 0A 109 AP-11-1TB Fan
- Frame Grabber Data Translation DT3155 (1) -> not in Snappy2

Digi-Key box

- RH-25 .1Ω 25W 7430 [1]
- CAL-R 10W 1% 1KΩ RE65G1001 1KΩ [1]

- OPTO 22 Model 120D10 Solid State Relay
- OPTO 22 Model Z120D10 Solid State Relay

- SSW-113-01-G-D 13x2 socket [2]
- 626-1144-ND Conn Socket Combo-D 16-20 AWG SLD [10]
- 4306R-101-103 Resistor Network 6 SIP 10K Ω [34]
- 4310R-101-222 Resistor Network 10SIP 2.2KΩ [40]

CKN3007-ND 8 position Dip Switch top slide [4]

AD590JH --- Temperature Transducer [3] -
 ADG 408 BN --- 4/8 Channel Analog Multiplexer [1]
 AM26LS31ACN --- Differential Line Driver [19]
 DG508ACJ MAXIM --- CMOS analog Multiplexer [2]
 LF444CN --- Quad JFET input Low power Op Amp[20]
 LM324N --- Quad Differential input Op Amp IC [8]
 LM358P --- Dual Op Amp 8-DIP DigiKey#296-1395-5-ND [14]
 LM358P --- Dual Diffrential input Op Amp[8]
 LM3302N --- Quad Comparator 14DIP [21]
 MAX705 CPA0114 --- μ Processor Watchdog IC [1]
 OPA551PA --- High Voltage, High Current Op Amp Burr Brown [6]
 PS2502-4 --- Opto Isolators [11+60]
 SN7406N --- Hex Inverting Buffer [17]
 SN74HCT540N --- Oct Buffer Tri St. 20DIP [23]
 SN74HCT541N --- Oct Buff 20DIP [19]
 SPG-8651B --- Osc Selectable output 100KHz [1]

IMS U3-Clip Mounting Clips for IM483, 804, ISP 200,300 [10]
 Wagner Force Dial FDK 10 lbs pull or push

6th Shelf – Dome light TBD

CEC WebDAQ/100 IO box & power supply
 Acopian W12NT2200 Spare Light Box Halogen 12V LVPS
 Dome Light HV Power Supply Acopian PO1HA30 (2)
 Honeywell Magnet 101MG7 RKA2007 (4)
 Honeywell Magnet 102MG11 RKA2011 (1)
 DigiKey box
 DB9M cable & FP Brake cable
 Pomona Banana to Clip black & red

- Pomona Clip to Clip black, black, and red
- DB 25 M to DB25F, 6 conductors with indiv connectors
 - +DB25M loopback? P234 EP FP Camera load
 - 6 power resistors with connectors to above connectors
 - DB25 > Ribbon cable with intermediate test points
 - 3 x 50Ω camera dummy loads on DB25M connector
 - Sensor blackout box
- PVN012 IC relay PhotoVo 20V 2.5A 6 Dip (10)
- HAS050YH-AN DC-DC 24V in, 12V out 50W Converter
- DB9 to 6 BNC's for Frame grabbers

Bag labeled SHV with

- Hollow cathode socket
- High Voltage BNC sockets 174-3-9 (4)
- Sharpie, pen

Newark box – Dome Light box parts, power supplies, fuses

- GE RTV 108 3 oz tube
- Trip Lite Isobar DNET1 Network Surge Suppressor (2)
- Islatrol Plus Active Tracking Filter Control Concepts IC +105
- Fuse holders (3)
- Corona dope
- Carling switch AC1-80-34-450-131-D – Lamp box power switch
- Testor Black gloss enamel
- Acopian 12WB250 power supply
- Acopian 5EB100 Power supply
- Hollow cathode 8 pin sockets (5)
- ENSP1F5 – Ethernet Panel Mount Female (2)
- Hollow cathode plug & short wire (3)
- Fuses
 - 1.0A/250V 3AG Slo Blo F319-ND (30)
 - 1.2A/250V 3AG Slo Blo F320-ND (20)

3.0A/250V 3AG Slo Blo F329-ND (10)
F02A 250V 5A (2)
F02A 250V 2A (12)
F02A 250V 1A (13)
GBA3 (4)
AGC4 32V (4)
AGX2 250V (1)

Relocated

bifurcated 2' extension cord (2West ?)
Meter (2 West shelves)

Took Kit #2 Cordura fabric - (location unsure)

Static mat
static straps
VOM meter [BK : needle scale readout]
30' tape measure

nibbler tool
molex crimp tool
screw drivers
small combination wrench set
pliers
alligator clip leads
BNC FF & FFM connectors
desoldering bulb
AMP crimp tool
tweezer set
scissors
BNC m – banana adaptor
dental tools
buck knife
cutters
pliers
chip extraction tools
solder
hex keys

- Right angle light pipe & flashlight (dead batteries?)
- fuse puller
- resistor bending form
- retaining ring pliers
- logic probes (one damaged?)
- clamp ampmeter attachment
- power cord for current measurement
- cable ties
- Nut driver set

not on shelf

- HT 200B Crimp tool for RJ 4,6,8 connectors [Cat 5 kit -> Tom Gauron]
- Positronic 5W5 bodies -> Tom Gauron

Not on shelf 1 of cabinet

- FP X-Y lin to rotary encoder swap cables -> In SAO rack
- Box w/ PWB FP GL Encoder conditioning board -> TG 3/08
- RSF Module -> TB 8/08
- Motor connectors & Covers Used up (Tom to order more)

Not on shelf 2

- Copley 421 removed from use 3/14/08 -> TG 4/24/08
- Copley 5424AC Motor Controller [2 first to IOTA (older take out),
second to Megacam Common bldg. shelf (working spare for shutter)]

- Wavetek 2MHz Function Generator Model 20 -> Tom Gauron in Cambridge
- Wavetek Power Supply Wall Wart -> Tom Gauron in Cambridge
- HP Dual 0-40V, 0.3A power supply -> Tom Gauron in Cambridge
- Scope Meter -> Tom Gauron in Cambridge

not top shelf

Box w/ Pacific Scientific Stepper Motor M21NRXB-LDN-M1-00
& M22NRXB-LNN-NS-00

M/F S4102 Contact (mini BNC type?) [6-M, 3-F}
Toshiba Satellite Computer SI #310521 surplussed -> Grace 3/08

Spare Spec Filter Changer Stepper Pacific Scientific BE0200 E22nrft-ldn-M1-00 :::3rd shelf in loft or common building?
magnets, ICBL Temp Sensors - lower shelf, Common building
Temp sensors (3)
SSB 34 Brake Shutter & filter wheel
Box w/ Power off brake 0261-0118-0 44 MFSB-15-6-115V

Digi-Key box

BC004 104 ME5 [2] ???

not on shelf

EDINS backplane connectors (4M, 4Fa, 2Fb) ->Common Building
Elpac Power Systems BFS500-48 48.4 V 10A for Spec & chelle ->shelf 3
Frame Grabber Data Translation DT3155 (3) -> Snappy (upgraded computer)
Frame Grabber Data Translation DT3155 (2) -> Snap2 (hot swap?)

Fluke ScopeMeter 97 w/ interface adapter -> Tom Gauron

Connectors & pins from Digi-Key

A23924 8 pos MTA 100 (10)
A19276 8 pos Strain Relief Cover (10)
A2076 D sub housing plug 15 pos (5)
A31948 D sub housing recept 15 pos (5)
A31954 D sub pin 22-28 AWG Gold (100)

A31955 D sub socket 22-28 AWG Gold (100)

Check Bin4 Loft

Clarostat S 943-51W Opto switches [15] { Need 941 series. }

Photron Hollow Cathode Lamps(2 Fe-He-Ne-Ar, 1 Th) anteroom

Gilway Lamps L523 (2)

Blue tinted glass slips [9] for filtering He-Ne-Ar lamps > common bldg

not on shelf

Devcon 5 min epoxy – dead – replacement at Common building.

WFC motor current breakout and DMM adapter + 2 Stepper motors (1 bad, 1 ok)