

IceCube M&O Staffing Matrix sort by WBS v10.0 2011.0422

WBS L2	WBS L3	US / Non-US	Institution	Labor Cat.	Names	Tasks	NSF M&O Core	U.S. IN-KIND	Non U.S. In-Kind	Grand Total								
											Cat.	Description	Cat.	Description	Cat.	Description	Cat.	Description
											AD	Administration	GR	Graduate Student	PO	Postdoctoral Scientist	TE	Technician
CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Winterover											
EN	Engineer	MA	Management	SE	Senior Engineer													
2.1 Program Management	2.1.1 Administration	US	LBNL	KE	KLEIN, SPENCER	Supervise LBNL effort	0.05			0.05								
2.1 Program Management	2.1.1 Administration	US	LBNL	KE	KLEIN, SPENCER	Pubcom member		0.10		0.10								
2.1 Program Management	2.1.1 Administration	US	GTECH	KE	TABOADA, IGNACIO	Speakers Comm Chair		0.25		0.25								
2.1 Program Management	2.1.1 Administration	US	PSU	KE	COWEN, DOUG	ExecCom member		0.20		0.20								
2.1 Program Management	2.1.1 Administration	US	UA	KE	TOALE, PATRICK	Software Coordinator		0.75		0.75								
2.1 Program Management	2.1.1 Administration	US	UCB	SC	FILIMONOV, KIRILL	Pubcom member		0.10		0.10								
2.1 Program Management	2.1.1 Administration	US	UCB	KE	PRICE, BUFORD	Education & Outreach		0.10		0.10								
2.1 Program Management	2.1.1 Administration	US	UCB	SC	WOSCHNAGG, KURT	Speakers Comm member		0.10		0.10								
2.1 Program Management	2.1.1 Administration	US	UD	KE	GAISSER, TOM	ExecCom member		0.20		0.20								
2.1 Program Management	2.1.1 Administration	US	UMD	KE	SULLIVAN, GREG	Spokesperson		0.30		0.30								
2.1 Program Management	2.1.1 Administration	US	UMD	KE	SULLIVAN, GREG	ExecCom member		0.20		0.20								
2.1 Program Management	2.1.1 Administration	US	UMD	PO	OLIVAS, ALEX	Pubcom member		0.10		0.10								
2.1 Program Management	2.1.1 Administration	US	UMD	PO	WISSING, HENRIKE	Pubcom member		0.10		0.10								
2.1 Program Management	2.1.1 Administration	US	UW	KE	HALZEN, FRANCIS	Principle Investigator	0.08	0.33		0.42								
2.1 Program Management	2.1.1 Administration	US	UW	KE	KARLE, ALBRECHT	Associate Director for Science and Instrumentation	0.08	0.33		0.42								
2.1 Program Management	2.1.1 Administration	US	UW	KE	WESTERHOFF, STEFAN	Pubcom member		0.10		0.10								
2.1 Program Management	2.1.1 Administration	US	UW	KE	YECK, JAMES	Director of Operations	0.75			0.75								
2.1 Program Management	2.1.1 Administration	US	UW	SC	HILL, GARY	Weekly call, ICC support		0.20		0.20								
2.1 Program Management	2.1.1 Administration	US	UW	MA	MERCK, MARTIN	Computing Infrastructure Management	1.00			1.00								
2.1 Program Management	2.1.1 Administration	US	UW	MA	PELES, ADI	Resource Coordinator	0.50			0.50								
2.1 Program Management	2.1.1 Administration	US	UW	AD	UW AD	Administrative Support	0.50			0.50								
2.1 Program Management	2.1.1 Administration	US	UW	AD	UW AD	Host Spring collaboration meeting		0.50		0.50								
2.1 Program Management	2.1.1 Administration	US	<b>US Total</b>					<b>2.97</b>	<b>3.97</b>		<b>6.93</b>							
2.1 Program Management	2.1.1 Administration	Non-US	DESY	KE	SPIERING, CHRISTIAN	ExecCom member			0.20	0.20								
2.1 Program Management	2.1.1 Administration	Non-US	DESY	AD	DESY AD	Host Fall Collaboration Meeting		0.00		0.00								
2.1 Program Management	2.1.1 Administration	Non-US	MPI	KE	RESCONI, ELISA	Analysis Coordinator		0.50		0.50								
2.1 Program Management	2.1.1 Administration	Non-US	RWTH	KE	WIEBUSCH, CHRISTOPHER	Coordinate BMBF Funding		0.10		0.10								
2.1 Program Management	2.1.1 Administration	Non-US	SU	KE	HULTH, PER OLOF	ExecCom member		0.20		0.20								
2.1 Program Management	2.1.1 Administration	Non-US	SU	KE	HULTH, PER OLOF	ICB Member		0.05		0.05								
2.1 Program Management	2.1.1 Administration	Non-US	SU	KE	HULTQVIST, KLAS	ICB Member		0.05		0.05								
2.1 Program Management	2.1.1 Administration	Non-US	SU	KE	FINLEY, CHAD SU	Coordination with LIGO		0.10		0.10								
2.1 Program Management	2.1.1 Administration	Non-US	SU	KE	WALCK, CHRISTIAN	Publications Bookkeeping		0.10		0.10								
2.1 Program Management	2.1.1 Administration	Non-US	ULB	KE	BERTRAND, DANIEL	ExecCom member		0.20		0.20								
2.1 Program Management	2.1.1 Administration	Non-US	UU	KE	BOTNER, OLGA	Outreach		0.05		0.05								
2.1 Program Management	2.1.1 Administration	Non-US	UU	KE	BOTNER, OLGA	Pubcom Chair		0.40		0.40								
2.1 Program Management	2.1.1 Administration	Non-US	UU	KE	HALLGREN, ALLAN	Outreach		0.05		0.05								
2.1 Program Management	2.1.1 Administration	Non-US	UU	KE	HALLGREN, ALLAN	Speakers Comm member		0.10		0.10								
2.1 Program Management	2.1.1 Administration	Non-US	WUPPERTAL	KE	HELBING, KLAUS	Speakers Comm member		0.10		0.10								
2.1 Program Management	2.1.1 Administration	Non-US	MAINZ	KE	KÖPKE, LUTZ	ExecCom member		0.20		0.20								
2.1 Program Management	2.1.1 Administration	Non-US	BOCHUM	KE	BECKER, JULIA	Pubcom member		0.10		0.10								
2.1 Program Management	2.1.1 Administration	Non-US	<b>Non-US Total</b>						<b>2.50</b>		<b>2.50</b>							
2.1 Program Management	<b>2.1.1 Administration WBS L3 T</b>							<b>2.97</b>	<b>3.97</b>	<b>2.50</b>	<b>9.43</b>							
2.1 Program Management	2.1.2 Engineering And R&D Support	US	KU	KE	BESSON, DAVE	EMI - Radio R&D		0.10		0.10								
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UMD	KE	HOFFMAN, KARA	Detector R&D		0.20		0.20								
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UW	SC	LANDSMAN, YAEL HAGAR	Science Support	0.25			0.25								
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UW	SE	LAUNDRIE, ANDREW	EMI, Instrumentation, I/F	0.25			0.25								
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UW	SE	LAUNDRIE, ANDREW	Engineering Support	0.45			0.45								
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UW	SE	SANDSTROM, PERRY	EMI, Instrumentation, I/F	0.15			0.15								
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UW	SE	SANDSTROM, PERRY	Engineering Support	0.15			0.15								
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UW	EN	UW EN	Engineering Support	0.10			0.10								
2.1 Program Management	2.1.2 Engineering And R&D Support	US	UW	MA	DUVERNOIS, MICHAEL	EMI, Instrumentation, I/F	0.25			0.25								
2.1 Program Management	2.1.2 Engineering And R&D Support	US	<b>US Total</b>					<b>1.60</b>	<b>0.30</b>		<b>1.90</b>							
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	DESY	KE	NAHNHAUER, ROLF	Acoustic R&D Support			0.10	0.10								
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	EPFL	KE	EPFL KE	Acoustic R&D Support			0.10	0.10								
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	RWTH	PO	LAIHEM, KARIM	Acoustic R&D Support			0.20	0.20								
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	ULB	KE	HANSON, KAEL ULB	EMI/R&D		0.10		0.10								
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	UU	KE	HALLGREN, ALLAN	Acoustic R&D Support		0.10		0.10								
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	WUPPERTAL	KE	HELBING, KLAUS	R&D Lead		0.10		0.10								
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	WUPPERTAL	KE	WUPPERTAL KE	RFI		0.10		0.10								
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	WUPPERTAL	PO	KARG, TIMO	Acoustic Lead		0.10		0.10								
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	GENT	SC	UGENT SC	Acoustic R&D Support		0.05		0.05								
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	GENT	GR	UGENT GR	Acoustic R&D Support		0.05		0.05								
2.1 Program Management	2.1.2 Engineering And R&D Support	Non-US	<b>Non-US Total</b>							<b>1.00</b>	<b>1.00</b>							
2.1 Program Management	<b>2.1.2 Engineering And R&amp;D Support WBS L3 T</b>							<b>1.60</b>	<b>0.30</b>	<b>1.00</b>	<b>2.90</b>							

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WBS L2	WBS L3	US / Non-US	Institution	Labor Cat.	Names	Tasks	NSF M&O Core	U.S. IN-KIND	Non U.S. In-Kind	Grand Total								
											Cat.	Description	Cat.	Description	Cat.	Description	Cat.	Description
											AD	Administration	GR	Graduate Student	PO	Postdoctoral Scientist	TE	Technician
CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Winterover											
		EN	Engineer	MA	Management	SE	Senior Engineer											
2.1 Program Management	2.1.3 Usap Support	US	UW	MA	HAUGEN, JAMES	USAP Support	0.25			0.25								
2.1 Program Management	2.1.3 Usap Support	US	US Total				0.25			0.25								
2.1 Program Management	<b>2.1.3 Usap Support</b>	<b>WBS L3 T</b>					<b>0.25</b>			<b>0.25</b>								
2.1 Program Management	2.1.4 Education & Outreach	US	OSU	PO	OSU PO	Outreach		0.05		0.05								
2.1 Program Management	2.1.4 Education & Outreach	US	PSU	KE	COWEN, DOUG	Education & Outreach		0.05		0.050								
2.1 Program Management	2.1.4 Education & Outreach	US	PSU	KE	DEYOUNG, TYCE	Education & Outreach		0.05		0.050								
2.1 Program Management	2.1.4 Education & Outreach	US	UMD	KE	UMD KE	E&O		0.10		0.10								
2.1 Program Management	2.1.4 Education & Outreach	US	UW	AD	MALKUS, EVELYN	Education & Outreach Coordination	0.75			0.75								
2.1 Program Management	2.1.4 Education & Outreach	US	UWRF	KE	MADSEN, JIM	Teachers' program and UWRF Upward Bound		0.10		0.10								
2.1 Program Management	2.1.4 Education & Outreach	US	UWRF	TE	UWRF TE	Teachers Program	0.10			0.10								
2.1 Program Management	2.1.4 Education & Outreach	US	US Total				0.85	0.35		1.20								
2.1 Program Management	<b>2.1.4 Education &amp; Outreach</b>	<b>WBS L3 T</b>					<b>0.85</b>	<b>0.35</b>		<b>1.20</b>								
<b>2.1 Program Management</b>	<b>WBS L2 Total</b>						<b>5.67</b>	<b>4.62</b>	<b>3.50</b>	<b>13.78</b>								
2.2 Detector Operations & Maint	2.2 Detector Operations & Maintenance	US	LBNL	KE	NYGREN, DAVID R	Track Engine Trigger		0.10		0.10								
2.2 Detector Operations & Maint	2.2 Detector Operations & Maintenance	US	UW	MA	LAITSCH, DENISE	Detector Operations Manager	1.00			1.00								
2.2 Detector Operations & Maint	2.2 Detector Operations & Maintenance	US	US Total				1.00	0.10		1.10								
2.2 Detector Operations & Maint	<b>2.2 Detector Operations &amp; Maintenance</b>	<b>WBS L3 T</b>					<b>1.00</b>	<b>0.10</b>		<b>1.10</b>								
2.2 Detector Operations & Maint	2.2.1 Run Coordination	US	UW	SC	KRASBERG, MARK	Winterovers coordinator	0.25			0.25								
2.2 Detector Operations & Maint	2.2.1 Run Coordination	US	UW	WO	UW WO	Operate Detector (Winter-Overs)	3.00			3.00								
2.2 Detector Operations & Maint	2.2.1 Run Coordination	US	US Total				3.25	0.00		3.25								
2.2 Detector Operations & Maint	2.2.1 Run Coordination	Non-US	UC	GR	UC GR	Flasher Runs			0.10	0.10								
2.2 Detector Operations & Maint	2.2.1 Run Coordination	Non-US	BONN	PO	BOSSER, SEBASTIAN	Run Coordinator			0.50	0.50								
2.2 Detector Operations & Maint	2.2.1 Run Coordination	Non-US	Non-US Total						0.60	0.60								
2.2 Detector Operations & Maint	<b>2.2.1 Run Coordination</b>	<b>WBS L3 T</b>					<b>3.25</b>	<b>0.00</b>	<b>0.60</b>	<b>3.85</b>								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	US	LBNL	EN	STEZELBERGER, THORSTE	Maintain DAQ Hardware (Hubs, DOR, Clocks, GPS,...)	0.15			0.15								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	US	UD	KE	UD KE	DAQ Monitoring		0.05		0.05								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	US	UW	SC	KRASBERG, MARK	DOM Cal Maintenance, DOM Monitoring and Troubleshooting	0.35			0.35								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	US	UW	SC	KRASBERG, MARK	Provide Real-time System Monitoring and Paging	0.20			0.20								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	US	UW	SC	WENDT, CHRISTOPHER	DOM CAL Maintenance	0.25			0.25								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	US	UW	SE	GLOWACKI, DAVID	Maintain DAQ Software Systems (incl. triggers, DOM SW, etc. up to Event Builder)	1.00			1.00								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	US	UW	TE	BELLINGER, JIM	Maintain DAQ Software Systems	0.25			0.25								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	US	UW	SE	SANDSTROM, PERRY	Maintain DAQ Hardware (Hubs, DOR, Clocks, GPS,...)	0.25			0.25								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	US	UW	CS	JACOBSEN, JOHN (NPX)	Maintain DAQ Hardware (Hubs, DOR, Clocks, GPS,...)	0.15			0.15								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	US	UW	GR	WEAVER, CHRISTOPHER	DOM CAL Maintenance		0.15		0.15								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	US	US Total				2.60	0.20		2.80								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	Non-US	DESY	SC	SULANKE, K.-H.	DAQ Firmware Support			0.15	0.15								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	Non-US	ULB	KE	HANSON, KAEL ULB	Data Acquisition			0.20	0.20								
2.2 Detector Operations & Maint	2.2.2 Data Acquisition	Non-US	Non-US Total						0.35	0.35								
2.2 Detector Operations & Maint	<b>2.2.2 Data Acquisition</b>	<b>WBS L3 T</b>					<b>2.60</b>	<b>0.20</b>	<b>0.35</b>	<b>3.15</b>								
2.2 Detector Operations & Maint	2.2.3 Online Filter (Pnf)	US	UMD	SC	BLAUFUSS, ERIK	Maintain PnF Software and Online Filters	0.20			0.20								
2.2 Detector Operations & Maint	2.2.3 Online Filter (Pnf)	US	UMD	SC	SCHMIDT, TORSTEN	Maintain PnF Software and Online Filters	0.25			0.25								
2.2 Detector Operations & Maint	2.2.3 Online Filter (Pnf)	US	UMD	GR	REDL, PETER	Online Filter Testing		0.25		0.25								
2.2 Detector Operations & Maint	2.2.3 Online Filter (Pnf)	US	US Total				0.45	0.25		0.70								
2.2 Detector Operations & Maint	<b>2.2.3 Online Filter (Pnf)</b>	<b>WBS L3 T</b>					<b>0.45</b>	<b>0.25</b>		<b>0.70</b>								
2.2 Detector Operations & Maint	2.2.4 Sps Operations	US	UW	SE	SANDSTROM, PERRY	Maintain South Pole Computing Hardware Infrastructure and operating systems	0.25			0.25								
2.2 Detector Operations & Maint	2.2.4 Sps Operations	US	UW	CS	SOUNDARAPANDIAN, KART	Maintain South Pole Computing Hardware Infrastructure and operating systems	0.75			0.75								
2.2 Detector Operations & Maint	2.2.4 Sps Operations	US	UW	EN	WISNIEWSKI, PAUL	Networking and Security Maintenance	0.25			0.25								
2.2 Detector Operations & Maint	2.2.4 Sps Operations	US	US Total				1.25	0.00		1.25								
2.2 Detector Operations & Maint	<b>2.2.4 Sps Operations</b>	<b>WBS L3 T</b>					<b>1.25</b>	<b>0.00</b>		<b>1.25</b>								
2.2 Detector Operations & Maint	2.2.5 Spts Operations	US	UW	SE	LAUNDRIE, ANDREW	Maintain South Pole Test System Hardware and Operating Systems	0.10			0.10								
2.2 Detector Operations & Maint	2.2.5 Spts Operations	US	UW	CS	SOUNDARAPANDIAN, KART	Maintain South Pole Test System Hardware and Operating Systems	0.25			0.25								
2.2 Detector Operations & Maint	2.2.5 Spts Operations	US	US Total				0.35	0.00		0.35								
2.2 Detector Operations & Maint	<b>2.2.5 Spts Operations</b>	<b>WBS L3 T</b>					<b>0.35</b>	<b>0.00</b>		<b>0.35</b>								
2.2 Detector Operations & Maint	2.2.6 Experiment Control	US	UW	CS	JACOBSEN, JOHN (NPX)	IceCube Live Maintenance and Upgrades	0.85			0.85								
2.2 Detector Operations & Maint	2.2.6 Experiment Control	US	US Total				0.85	0.00		0.85								
2.2 Detector Operations & Maint	<b>2.2.6 Experiment Control</b>	<b>WBS L3 T</b>					<b>0.85</b>	<b>0.00</b>		<b>0.85</b>								
2.2 Detector Operations & Maint	2.2.7 Detector Monitoring	US	CAU	KE	JAPARIDZE, GEORGE	Monitoring shifts		0.02		0.02								
2.2 Detector Operations & Maint	2.2.7 Detector Monitoring	US	GTECH	GR	GTECH GR	Monitoring shifts		0.03		0.03								
2.2 Detector Operations & Maint	2.2.7 Detector Monitoring	US	KU	KE	BESSON, DAVE	Monitoring shifts		0.02		0.02								
2.2 Detector Operations & Maint	2.2.7 Detector Monitoring	US	LBNL	SC	KIRYLUK, JOANNA	BadDomList		0.20		0.20								
2.2 Detector Operations & Maint	2.2.7 Detector Monitoring	US	LBNL	PO	LBNL PO	Monitoring shifts		0.09		0.09								
2.2 Detector Operations & Maint	2.2.7 Detector Monitoring	US	OSU	PO	OSU PO	Monitoring shifts		0.02		0.02								
2.2 Detector Operations & Maint	2.2.7 Detector Monitoring	US	OSU	PO	ROTT, CARSTEN	Maintain good run list		0.20		0.20								
2.2 Detector Operations & Maint	2.2.7 Detector Monitoring	US	PSU	PO	KOSKINEN, JASON	Monitoring shifts		0.03		0.030								
2.2 Detector Operations & Maint	2.2.7 Detector Monitoring	US	PSU	GR	DUNKMAN, MATT	Monitoring shifts		0.03		0.030								
2.2 Detector Operations & Maint	2.2.7 Detector Monitoring	US	SUBR	SC	TER-ANTONYAN, SAMVEL	Detector Monitoring		0.02		0.02								
2.2 Detector Operations & Maint	2.2.7 Detector Monitoring	US	UA	PO	ZARZHITZKY, PAVEL	Monitoring shifts		0.03		0.03								

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											Cat.	Description	Cat.	Description	Cat.	Description	Cat.	Description
											AD	Administration	GR	Graduate Student	PO	Postdoctoral Scientist	TE	Technician
CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Winterover											
EN	Engineer	MA	Management	SE	Senior Engineer													
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	US	UA	GR	XU, DONGLIAN	Monitoring shifts		0.03		0.03								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	US	UAA	KE	RAWLINS, KATHERINE	Monitoring shifts		0.02		0.02								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	US	UCB	SC	FILIMONOV, KIRILL	Coordinate Monitoring		0.50		0.50								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	US	UCB	SC	UCB SC	Monitoring shifts		0.02		0.02								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	US	UCB	GR	UCB GR	Monitoring shifts		0.02		0.02								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	US	UCI	PO	SILVERSTRI, ANDREA	Monitoring shifts		0.01		0.01								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	US	UCI	GR	HANSON, JORDAN	Monitoring shifts		0.01		0.01								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	US	UD	PO	KUWABARA, TAKAO	Temp. & Pressure atmospheric monitoring		0.25		0.25								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	US	UMD	PO	UMD PO	Monitoring shifts		0.03		0.03								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	US	UMD	GR	UMD GR	Monitoring shifts		0.06		0.06								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	US	UW	PO	UW PO	Monitoring shifts		0.12		0.12								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	US	UW	GR	BAKER, MICHAEL	Stability (L2 Processing)		0.10		0.10								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	US	UW	GR	UW GR	Monitoring shifts		0.12		0.12								
<b>US US Total</b>							<b>0.00</b>	<b>1.96</b>		<b>1.96</b>								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	CHIBA	GR	CHIBA GR	Detector Monitoring			0.03	0.03								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	DESY	SC	DESY SC	Detector Monitoring			0.06	0.06								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	DESY	SC	BENABDERRAHMANE, LOF	Deputy Monitoring Coordinator			0.20	0.20								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	DESY	GR	DESY GR	Detector Monitoring			0.12	0.12								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	DTMND	GR	DTMD GR	Detector Monitoring			0.03	0.03								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	EPFL	GR	EPFL GR	Detector Monitoring			0.03	0.03								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	MPI	GR	MPI GR	Detector Monitoring			0.05	0.05								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	RWTH	GR	PAUL, LARRISA	RASTA & SPATS monitoring			0.10	0.10								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	RWTH	GR	RWTH GR	Monitoring (3 weeks)			0.09	0.09								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	SU	GR	SU GR	Detector Monitoring			0.06	0.06								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	UC	GR	UC GR	Detector Monitoring			0.02	0.02								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	ULB	GR	ULB GR	Detector Monitoring			0.03	0.03								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	UMH	GR	KOHNEN, GEORGE	Detector Monitoring			0.03	0.03								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	UOX	KE	SARKAR, SUBIR	Detector Monitoring			0.02	0.02								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	UU	GR	UU GR	Detector Monitoring			0.03	0.03								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	VUB	PO	VUB PO	Monitoring shifts			0.06	0.06								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	WUPPERTAL	GR	WUPPERTAL GR	South Pole EMI Monitoring			0.15	0.15								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	WUPPERTAL	GR	WUPPERTAL GR	AURA, SPATS, surface antenna operations (RICE)			0.45	0.45								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	MAINZ	GR	UM GR	Detector Monitoring			0.05	0.05								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	MAINZ	GR	SCHATTO, KAI	Monitoring IceCube Live integration			0.10	0.10								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	HUMBOLDT	GR	HUMB GR	Detector Monitoring			0.03	0.03								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	GENT	GR	UGENT GR	Detector Monitoring			0.03	0.03								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	BONN	GR	UBONN GR	Detector Monitoring			0.03	0.03								
2.2 Detector Operations & Mair	2.2.7 Detector Monitoring	Non-US	BOCHUM	GR	UBOCHUM GR	Detector Monitoring			0.03	0.03								
<b>Non-US Non-US Total</b>							<b>1.83</b>	<b>1.83</b>		<b>1.83</b>								
<b>2.2.7 Detector Monitoring WBS L3 T</b>							<b>0.00</b>	<b>1.96</b>	<b>1.83</b>	<b>3.79</b>								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	US	GTECH	GR	DAUGHHETEE, JACOB	Standard Candle Vertex and Energy Calibration		0.20		0.20								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	US	LBNL	SC	KIRYLUK, JOANNA	Flasher Runs		0.10		0.10								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	US	UA	KE	WILLIAMS, DAWN	managing flasher runs and other calibrations (stage 2 geometry)		0.15		0.15								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	US	UA	GR	XU, DONGLIAN	Low-energy cascade calibration with flashers		0.10		0.10								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	US	UCB	SC	WOSCHNAGG, KURT	Calibration Lead		0.15		0.15								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	US	UCB	GR	UCB GR	Calibration		0.10		0.10								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	US	UW	SC	WENDT, CHRISTOPHER	Prepare and Evaluate Flasher Calibrations, Evaluate (DomCal) Calibration Runs and update Calibration constants		0.28		0.28								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	US	UW	GR	FEINTZIG, JACOB	Ice Properties		0.15		0.15								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	US	UW	GR	GLADSTONE, LAURA	Moon Shadow		0.10		0.10								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	US	UW	GR	VAN SANTEN, JACOB	Calibration of DOM waveforms		0.15		0.15								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	US	UW	GR	SANTANDER, MARCOS	Moon Shadow		0.15		0.15								
<b>US US Total</b>							<b>0.28</b>	<b>1.35</b>		<b>1.63</b>								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	Non-US	DESY	GR	ACHIM STOESSL	Flasher Analysis			0.20	0.20								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	Non-US	DESY	GR	EIKE MIDDLELL	Flasher Analysis			0.10	0.10								
2.2 Detector Operations & Mair	2.2.8 Detector Calibration	Non-US	UU	PO	MILLER, JONATHAN	Flasher Calibration			0.20	0.20								
<b>Non-US Non-US Total</b>							<b>0.50</b>	<b>0.50</b>		<b>0.50</b>								
<b>2.2.8 Detector Calibration WBS L3 T</b>							<b>0.28</b>	<b>1.35</b>	<b>0.50</b>	<b>2.13</b>								
2.2 Detector Operations & Mair	2.2.9 Ictop Operations	US	UD	SC	UD SC	Coordinate IceTop Operations		1.00		1.00								
2.2 Detector Operations & Mair	2.2.9 Ictop Operations	US	UWRF	KE	SPICZAK, GLENN	IceTop tank Monitoring		0.03		0.03								
2.2 Detector Operations & Mair	2.2.9 Ictop Operations	US	<b>US US Total</b>				<b>1.00</b>	<b>0.03</b>		<b>1.03</b>								
<b>2.2.9 Ictop Operations WBS L3 T</b>							<b>1.00</b>	<b>0.03</b>	<b>0.00</b>	<b>1.03</b>								
2.2 Detector Operations & Mair	2.2.10 Supernova Operations	Non-US	MAINZ	GR	KROLL, GOSTA	SuperNova Operations			0.50	0.50								
2.2 Detector Operations & Mair	2.2.10 Supernova Operations	Non-US	<b>Non-US Non-US Total</b>						<b>0.50</b>	<b>0.50</b>								
<b>2.2.10 Supernova Operations WBS L3 T</b>									<b>0.50</b>	<b>0.50</b>								
<b>2.2 Detector Operations &amp; Ma WBS L2 Total</b>							<b>11.03</b>	<b>3.89</b>	<b>3.78</b>	<b>18.69</b>								
2.3 Computing And Data Mana	2.3.1 Core Software	US	UMD	SC	BLAUFUSS, ERIK	Core Software		0.00		0.00								
2.3 Computing And Data Mana	2.3.1 Core Software	US	UMD	SC	SCHMIDT, TORSTEN	Maintain Core Analysis Framework (IceTray)		0.50		0.50								
2.3 Computing And Data Mana	2.3.1 Core Software	US	UMD	CS	UMD CS	Maintain Core Software Repository		0.25		0.25								
2.3 Computing And Data Mana	2.3.1 Core Software	US	UMD	GR	UMD GR	Core Software		0.25		0.25								
2.3 Computing And Data Mana	2.3.1 Core Software	US	UMD	GR	MEAGHER, KEVIN	Core Software		0.50		0.50								
2.3 Computing And Data Mana	2.3.1 Core Software	US	UMD	TE	STRASZHEIM, TROY	Maintain Core Analysis Framework (IceTray)		0.88		0.88								
2.3 Computing And Data Mana	2.3.1 Core Software	US	UW	TE	DIAZ-VELEZ, JUAN CARLOS	Simulation Programs: diploia		0.80		0.80								
2.3 Computing And Data Mana	2.3.1 Core Software	US	UW	TE	FADIRAN, OLADIPO	Maintain Data Processing Software		0.20		0.20								
2.3 Computing And Data Mana	2.3.1 Core Software	US	UW	PO	KURAHASHI, NAKO	IceTray Support (Q frame)		0.15		0.15								
2.3 Computing And Data Mana	2.3.1 Core Software	US	UW	GR	VAN SANTEN, JACOB	IceTray Support (I2MA)		0.15		0.15								
<b>US US Total</b>							<b>2.63</b>	<b>1.05</b>		<b>3.68</b>								

## IceCube M&amp;O Staffing Matrix sort by WBS v10.0 2011.0422

WBS L2	WBS L3	US / Non-US	Institution	Labor Cat.	Names	Tasks	NSF M&O Core	U.S. In-Kind	Non U.S. In-Kind	Grand Total								
											Cat.	Description	Cat.	Description	Cat.	Description	Cat.	Description
											AD	Administration	GR	Graduate Student	PO	Postdoctoral Scientist	TE	Technician
CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Winterover											
		EN	Engineer	MA	Management	SE	Senior Engineer											
2.3 Computing And Data Mana	2.3.1 Core Software	Non-US	RWTH	PO	BOERSMA, DAVID RWTH	Maintain Reconstruction Framework			0.10	0.10								
2.3 Computing And Data Mana	2.3.1 Core Software	Non-US	ULB	PO	MAROTTA, ALBERTO	Maintain and Operate Database Systems (I3OmDb)			0.20	0.20								
2.3 Computing And Data Mana	2.3.1 Core Software	Non-US Total							0.30	0.30								
2.3 Computing And Data Mana	<b>2.3.1 Core Software</b>	<b>WBS L3 T</b>					<b>2.63</b>	<b>1.05</b>	<b>0.30</b>	<b>3.98</b>								
2.3 Computing And Data Mana	2.3.2 Data Storage & Transfer	US	UW	TE	BELLINGER, JIM	Organize and monitor the production of filtered science data. Organize the usage of data analysis computing storage. Migrate data to second tier storage	0.50			0.50								
2.3 Computing And Data Mana	2.3.2 Data Storage & Transfer	US	UW	TE	BELLINGER, JIM	Support the development of data warehouse software	0.25			0.25								
2.3 Computing And Data Mana	2.3.2 Data Storage & Transfer	US	UW	TE	FADIRAN, OLADIPO	Transformation of Data for Long-Term Persistence and Archival, e.g., HDF5 Maintain Data Warehouse Standards, Software (Ingest), Data Access (FTP), and Web Interface	0.20			0.20								
2.3 Computing And Data Mana	2.3.2 Data Storage & Transfer	US	UW	AD	RICHARDS, JOHN	Maintain and Operate Data Storage Infrastructure	1.00			1.00								
2.3 Computing And Data Mana	2.3.2 Data Storage & Transfer	US	UW	TE	MEADE, PATRICK	Transfer Data from S. Pole to UW Data Warehouse and Archive at S. Pole Maintain Data Transfer SW (SPADE) Maintain Data Warehouse Standards, Software (Ingest), Data Access (FTP), and Web Interface	0.50			0.50								
2.3 Computing And Data Mana	2.3.2 Data Storage & Transfer	US US Total					<b>2.45</b>	<b>0.00</b>		<b>2.45</b>								
2.3 Computing And Data Mana	<b>2.3.2 Data Storage &amp; Transfer</b>	<b>WBS L3 T</b>					<b>2.45</b>	<b>0.00</b>		<b>2.45</b>								
2.3 Computing And Data Mana	2.3.3 Computing Resources	US	PSU	PO	CABALLERO-MORA, KAREN	Coordination and Support for Grid and distributed computing	0.25			0.250								
2.3 Computing And Data Mana	2.3.3 Computing Resources	US	SUBR	SC	TER-ANTONYAN, SAMVEL	LONI Grid computing		0.30		0.30								
2.3 Computing And Data Mana	2.3.3 Computing Resources	US	UMD	TE	UMD TE	Coordination and Support for Grid and distributed computing	0.25			0.25								
2.3 Computing And Data Mana	2.3.3 Computing Resources	US	UW	EN	SKARLUPKA, HEATH	Maintain Core High Performance Computing Systems Coordination and Support for Grid and distributed computing	1.00			1.00								
2.3 Computing And Data Mana	2.3.3 Computing Resources	US	UW	EN	UW TE	Maintain Data Center Infrastructure	1.00			1.00								
2.3 Computing And Data Mana	2.3.3 Computing Resources	US	UW	EN	WISNIEWSKI, PAUL	Maintain Data Center Networking and Security	0.75			0.75								
2.3 Computing And Data Mana	2.3.3 Computing Resources	US	UW	TE	UW TE	Maintain Data Center Infrastructure	0.50			0.50								
2.3 Computing And Data Mana	2.3.3 Computing Resources	US	UW	TE	UW TE	Maintain Core High Performance Computing Systems	0.44			0.44								
2.3 Computing And Data Mana	2.3.3 Computing Resources	US US Total					<b>4.19</b>	<b>0.30</b>		<b>4.49</b>								
2.3 Computing And Data Mana	2.3.3 Computing Resources	Non-US	DESY	GR	KISLAT, FABIAN	Reconstruction Coordinator (acting), Maintain Reconstruction Framework			0.15	0.15								
2.3 Computing And Data Mana	2.3.3 Computing Resources	Non-US	DESY	TE	DESY TE	European Data Center -Distributed Computing and Labor			2.00	2.00								
2.3 Computing And Data Mana	2.3.3 Computing Resources	Non-US	DTMND	SC	PIELOTH, DAMIAN	Coordinate GRID computing in Germany			0.25	0.25								
2.3 Computing And Data Mana	2.3.3 Computing Resources	Non-US	SU	SC	SU SC	Computing Resources			0.40	0.40								
2.3 Computing And Data Mana	2.3.3 Computing Resources	Non-US	UMH	GR	KOHNNEN, GEORGE	IC database management			0.30	0.30								
2.3 Computing And Data Mana	2.3.3 Computing Resources	Non-US Non-US Total							<b>3.10</b>	<b>3.10</b>								
2.3 Computing And Data Mana	<b>2.3.3 Computing Resources</b>	<b>WBS L3 T</b>					<b>4.19</b>	<b>0.30</b>	<b>3.10</b>	<b>7.59</b>								
2.3 Computing And Data Mana	2.3.4 Data Production Processing	US	UW	PO	KURAHASHI, NAOKO	Online processing-muon channel		0.20		0.20								
2.3 Computing And Data Mana	2.3.4 Data Production Processing	US	UW	PO	TOSCANO, SIMONA	Cascade data processing		0.30		0.30								
2.3 Computing And Data Mana	2.3.4 Data Production Processing	US	UW	TE	MEADE, PATRICK	Unpacking, Decoding & Calibration of Raw Data (Level1); Run Common Reconstructions on UW IceCube Compute Cluster (Level2)	0.50			0.50								
2.3 Computing And Data Mana	2.3.4 Data Production Processing	US US Total					<b>0.50</b>	<b>0.50</b>		<b>1.00</b>								
2.3 Computing And Data Mana	2.3.4 Data Production Processing	Non-US	RWTH	GR	SCHUKRAFT, ANNE	Photonics Production			0.25	0.25								
2.3 Computing And Data Mana	2.3.4 Data Production Processing	Non-US Non-US Total							<b>0.25</b>	<b>0.25</b>								
2.3 Computing And Data Mana	<b>2.3.4 Data Production Processing</b>	<b>WBS L3 T</b>					<b>0.50</b>	<b>0.50</b>	<b>0.25</b>	<b>1.25</b>								
2.3 Computing And Data Mana	2.3.5 Simulation Production	US	GTECH	PO	TEPE, ANDREAS	Simulation Production		0.20		0.20								
2.3 Computing And Data Mana	2.3.5 Simulation Production	US	LBNL	SC	KIRYLUK, JOANNA	Simulation Production on PDSF		0.20		0.20								
2.3 Computing And Data Mana	2.3.5 Simulation Production	US	PSU	PO	CABALLERO-MORA, KAREN	Simulation Production		0.17		0.165								
2.3 Computing And Data Mana	2.3.5 Simulation Production	US	UD	PO	HUSSAIN, SHAHID	IceTop Simulation Production		0.15		0.15								
2.3 Computing And Data Mana	2.3.5 Simulation Production	US	UMD	GR	CHRISTY, BRIAN	Simulation Production coordination		0.25		0.25								
2.3 Computing And Data Mana	2.3.5 Simulation Production	US	UW	SC	DESIATI, PAOLO	Coordination of Simulation Production	0.70			0.70								
2.3 Computing And Data Mana	2.3.5 Simulation Production	US	UW	GR	EISCH, JONATHAN	IceTop Simulation Production		0.30		0.30								
2.3 Computing And Data Mana	2.3.5 Simulation Production	US	UW	TE	FADIRAN, OLADIPO	Simulation Production Coordination; production configurations, test production and web portal.	0.60			0.60								
2.3 Computing And Data Mana	2.3.5 Simulation Production	US	UW	TE	SCHULTZ, DAVID	Simulation Production	1.00			1.00								
2.3 Computing And Data Mana	2.3.5 Simulation Production	US US Total					<b>2.30</b>	<b>1.27</b>		<b>3.57</b>								

IceCube M&O Staffing Matrix sort by WBS v10.0 2011.0422

WBS L2	WBS L3	US / Non-US	Institution	Labor Cat.	Names	Tasks	NSF M&O Core	U.S. IN-KIND	Non U.S. In-Kind	Grand Total								
											Cat.	Description	Cat.	Description	Cat.	Description	Cat.	Description
											AD	Administration	GR	Graduate Student	PO	Postdoctoral Scientist	TE	Technician
CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Winterover											
			MA	Management	SE	Senior Engineer												
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	DESY	KE	WALTER, MICHAEL	Simulation Production Cluster			0.20	0.20								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	DESY	SC	BERGMANN, JENS	Simulation Production Cluster			0.25	0.25								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	DESY	GR	DESY GR	Simulation Production Cluster			0.15	0.15								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	DTMND	GR	DTMD GR	Simulation Production			0.40	0.40								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	RWTH	PO	LAIHEM, KARIM	MonteCarlo simulations of Cherenkov light yield			0.10	0.10								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	RWTH	GR	PAUL, LARRISA	Simulation Production on cluster/GRID			0.25	0.25								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	RWTH	GR	SCHUNCK, MATTHIAS	Simulation Production on cluster/GRID			0.25	0.25								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	ULB	PO	MAROTTA, ALBERTO	Computer Cluster - simulation			0.30	0.30								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	VUB	PO	STRAHLER, ERIK	simulation of ice properties and DOM sensitivities			0.25	0.25								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	ALBERTA	KE	GRANT, DARREN	WestGrid computing			0.10	0.10								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	ALBERTA	GR	WOOD, TANIA	WestGrid computing			0.20	0.20								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	WUPPERTAL	PO	KARG, TIMO	Simulation Production			0.20	0.20								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	WUPPERTAL	GR	WUPPERTAL GR	Simulation Production			0.20	0.20								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	MAINZ	SC	AHRENS, JENS	Simulation Production			0.15	0.15								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US	MAINZ	GR	WIEBE, KLAUS	Simulation Production			0.20	0.20								
2.3 Computing And Data Mana	2.3.5 Simulation Production	Non-US Non-US Total								3.20	3.20							
2.3 Computing And Data Mana	<b>2.3.5 Simulation Production WBS L3 1</b>							<b>2.30</b>	<b>1.27</b>	<b>3.20</b>	<b>6.77</b>							
<b>2.3 Computing And Data Man WBS L2 Total</b>							<b>12.07</b>	<b>3.12</b>	<b>6.85</b>	<b>22.03</b>								
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	GTECH	KE	TABOADA, IGNACIO	TFT Board Chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	UD	PO	BERGHAUS, PATRICK - UD	TFT Board member			0.10	0.10								
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	UD	KE	SECKEL, DAVID	TFT Board member			0.10	0.10								
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	UMD	SC	BLAUFUSS, ERIK	filter requests, bandwidth, TFT Board Member	0.30			0.30								
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	UMD	GR	HELLAUER, ROBERT	Prepare datasets for filter testing and common MC datasets for testing			0.20	0.20								
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	UW	SC	DESIATI, PAOLO	TFT Board member			0.10	0.10								
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US	UW	KE	MONTARULI, TERESA	TFT Board member			0.10	0.10								
2.4 Triggering And Filtering	2.4.1 TFT Coordination	US US Total								0.30	0.85							
2.4 Triggering And Filtering	2.4.1 TFT Coordination	Non-US	ALBERTA	KE	GRANT, DARREN	TFT Board member			0.10	0.10								
2.4 Triggering And Filtering	2.4.1 TFT Coordination	Non-US	BONN	PO	BOSSER, SEBASTIAN	TFT Board member			0.10	0.10								
2.4 Triggering And Filtering	2.4.1 TFT Coordination	Non-US	ULB	KE	HANSON, KANEL ULB	TFT Board member			0.10	0.10								
2.4 Triggering And Filtering	2.4.1 TFT Coordination	Non-US	UU	KE	DE LOS HEROS, CARLOS	TFT Board member			0.10	0.10								
2.4 Triggering And Filtering	2.4.1 TFT Coordination	Non-US	BONN	KE	KOWALSKI, MAREK	TFT Board member			0.10	0.10								
2.4 Triggering And Filtering	2.4.1 TFT Coordination	Non-US Non-US Total								0.50	0.50							
2.4 Triggering And Filtering	<b>2.4.1 TFT Coordination WBS L3 1</b>							<b>0.30</b>	<b>0.85</b>	<b>0.50</b>	<b>1.65</b>							
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	LBNL	KE	KIRYLUK, JOANNA	Cascade WG Co Chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	LBNL	KE	KLEIN, SPENCER	Diffuse WG Co-chair of			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	PSU	KE	COWEN, DOUG	Hybrid/Tau WG Chair			0.25	0.250								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	PSU	KE	DEYOUNG, TYCE	Deep Core WG - Co Chair			0.25	0.250								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	PSU	PO	KOSKINEN, JASON	develop and verify Deep Core filters			0.18	0.175								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	PSU	GR	DUNKMAN, MATT	develop and verify Deep Core filters			0.25	0.250								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UCB	SC	WOSCHNAGG, KURT	Diffuse / atmosnu WG chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UD	PO	BERGHAUS, PATRICK - UD	muon channel WG Co. Chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UMD	SC	BLAUFUSS, ERIK	GRB WG Chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UMD	PO	WISSING, HENRIKE	EHE and Brights WG co-chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UMD	PO	OLIVAS, ALEX	Exotics- WG chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UW	KE	WESTERHOFF, STEFAN	CR-WG Co Chair			0.10	0.10								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UW	PO	AUFFENBERG, JAN	Online filters (EHE)			0.15	0.15								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UW	KE	MARUYAMA, REINA	Supernova WG Chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UW	PO	TOSCANO, SIMONA	Cascade Online filter			0.10	0.10								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US	UW	GR	VAN SANTEN, JACOB	Online filters / SuperDST			0.15	0.15								
2.4 Triggering And Filtering	2.4.2 Physics Filters	US US Total								0.00	3.43							
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	CHIBA	SC	ISHIHARA, AYA	EHE and Brights WG co-chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	CHIBA	SC	ISHIHARA, AYA	EHE Filters			0.15	0.15								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	DESY	GR	FRANKE, ROBERT	Online Filter for Alerts			0.10	0.10								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	DESY	GR	FRANKE, ROBERT	Rate Data Bank South Pole			0.10	0.10								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	HUMBOLDT	KE	KOLANOSKI, HERMANN	CR-WG Co Chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	RWTH	PO	BOERSMA, DAVID RWTH	Gal Cen Filter & Moon Filter			0.15	0.15								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	RWTH	PO	BOERSMA, DAVID RWTH	muon channel WG Co. Chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	RWTH	GR	BISSOK, MARTIN	Gal Cen Filter			0.10	0.10								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	RWTH	GR	RWTH GR	Development of the slow monopole trigger			0.20	0.20								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	SU	KE	HULTH, PER OLOF	Low Energy DeepCore WG Co Chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	SU	SC	SEO, SEON-HEE	Develop & verify filters			0.05	0.05								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	SU	KE	FINLEY, CHAD SU	Point Source WG Chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	SU	GR	ZOLL, MARCEL	UHE Trigger & Filter			0.10	0.10								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	SU	GR	DANNINGER, MATTIAS	WIMP Trigger & Filter			0.15	0.15								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	ULB	GR	ULB GR	Study of Tau Filters at South Pole			0.10	0.10								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	UU	KE	HALLGREN, ALLAN	online filter development			0.05	0.05								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	UU	KE	DE LOS HEROS, CARLOS	WIMP WG Chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	UU	GR	HENRIC, TAAVOLA	Online filter development & testing			0.10	0.10								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	UU	GR	STROM, RICKARD	Online filter development & testing			0.10	0.10								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	VUB	PO	LABARE, MATHIEU	Filter for Southern sky muons			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	VUB	PO	BUIJIN, STJUN	Filter for Southern sky muons			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	BARBADOS	KE	SEUNARINE, SURUJ	Work on cascade filter			0.15	0.15								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	WUPPERTAL	GR	WUPPERTAL GR	New SUSY Filter			0.20	0.20								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	BONN	KE	KOWALSKI, MAREK	Cascade WG Co-Chair			0.25	0.25								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	BONN	GR	FRANCKOWIAK, ANNA	Alert System for follow-up			0.10	0.10								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US	BONN	GR	HOMRIER, ANDREAS	Alert System for follow-up			0.10	0.10								
2.4 Triggering And Filtering	2.4.2 Physics Filters	Non-US Non-US Total								4.25	4.25							
2.4 Triggering And Filtering	<b>2.4.2 Physics Filters WBS L3 1</b>							<b>0.00</b>	<b>3.43</b>	<b>4.25</b>	<b>7.68</b>							
2.4 Triggering And Filtering	<b>WBS L2 Total</b>							<b>0.30</b>	<b>4.28</b>	<b>4.75</b>	<b>9.33</b>							

**IceCube M&O Staffing Matrix sort by WBS v10.0 2011.0422**

WBS L2	WBS L3	US / Non-US	Institution	Labor Cat.	Names	Tasks	NSF M&O Core	U.S. IN-KIND	Non U.S. In-Kind	Grand Total								
											Cat.	Description	Cat.	Description	Cat.	Description	Cat.	Description
											AD	Administration	GR	Graduate Student	PO	Postdoctoral Scientist	TE	Technician
CS	Computer Science Eng.	KE	Key Personnel/Faculty	SC	Scientist	WO	Winterover											
		EN	Engineer	MA	Management	SE	Senior Engineer											
2.5 Data Quality, Reconstruction	2.5 Data Quality, Reconstruction & Simulation Tools	Non-US	BARBADOS	KE	SEUNARINE, SURUJ	Analysis of flasher runs for inice calibration of saturation, and flasher and Standard Candle runs for absolute energy calibration for cascades.			0.15	0.15								
2.5 Data Quality, Reconstruction	2.5 Data Quality, Reconstruction & Simulation Tools	Non-US	Non-US Total						0.15	0.15								
2.5 Data Quality, Reconstruction	<b>2.5 Data Quality, Reconstruction &amp; Simulation WBS L3 T Tools</b>								<b>0.15</b>	<b>0.15</b>								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	LBNL	PO	LBNL PO	DOM simulator & calibrator		0.35		0.35								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	LBNL	PO	GERHARDT,LISA	Simulation Programs: cmc		0.20		0.20								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	SUBR	KE	FAZELY, ALI	GEANT Simulation		0.15		0.15								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	SUBR	KE	IMLAY, RICHARD	Simulation Programs		0.15		0.15								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UA	PO	ZARZHITZKY, PAVEL	Simulation verification		0.30		0.30								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UA	GR	XU, DONGLIAN	DeepCore simulation verification		0.10		0.10								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UCB	SC	WOSCHNAGG, KURT	Maintain and Verify Simulation of Photon Propagation and update Ice Properties	0.50			0.50								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UD	PO	HUSSAIN, SHAHID	Ice Properties Simulation		0.30		0.30								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UD	GR	RUZYBAEV , BAKHTIYAR	Ice Properties Simulation		0.30		0.30								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UD	GR	XU, CHEN	Simulation Programs: sim-services		0.30		0.30								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UMD	PO	OLIVAS, ALEX	Simulation Software Programs coordinator	0.40			0.40								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UMD	PO	WISSING, HENRIKE	Maintain Detector Simulation (IceSim)		0.13		0.13								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UMD	GR	REDL, PETER	Maintain Detector Simulation (IceSim)		0.25		0.25								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UW	SC	CHIRKIN, DMITRY	Simulation Programs: mmc/mmc-icetray and ucr-icetray	0.20			0.20								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UW	SC	HILL, GARY	Maintain and Verify Simulation of Photon Propagation and update Ice Properties	0.30			0.30								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UW	PO	ABBASI, RASHA	DST data checking		0.10		0.10								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UW	PO	AGUILAR SANCHEZ JUAN A	low level moun data verification (data/mc)		0.10		0.10								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UW	PO	HOSHINA, KOTOYO	nugen maintenance		0.20		0.20								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UW	GR	WHITEHORN, NATHAN	Photonics tables		0.20		0.20								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	UW	TE	DIAZ-VELEZ, JUAN CARLOS	Maintain Simulation Production Software	0.20			0.20								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	US	US Total				1.60	3.13		4.73								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	Non-US	DTMND	GR	MILKE, NATALIE	Simulation Programs: noise-generator			0.20	0.20								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	Non-US	SU	KE	HULTQVIST, KLAS	Simulation Work, hit-maker		0.10		0.10								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	Non-US	SU	KE	FINLEY, CHAD SU	Simulation Programs: neutrino-generator		0.20		0.20								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	Non-US	UOX	KE	SARKAR, SUBIR	Yellow Book-maintenance		0.10		0.10								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	Non-US	UJU	PO	MILLER, JONATHAN	Simulation Programs: photonics		0.05		0.05								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	Non-US	GENT	SC	UGENT SC	Support IceTop Simulations, IceTop Calibrations, IceTop Reconstruction			0.10	0.10								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	Non-US	GENT	GR	UGENT GR	Support IceTop Simulations, IceTop Calibrations, IceTop Reconstruction		0.40		0.40								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	Non-US	BOCHUM	KE	BECKER, JULIA	Update MMC from Java to C++		0.10		0.10								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	Non-US	BOCHUM	GR	OLIVO, MARTINO	Monte Carlo Validation		0.10		0.10								
2.5 Data Quality, Reconstruction	2.5.1 Simulation Programs	Non-US	Non-US Total						1.35	1.35								
2.5 Data Quality, Reconstruction	<b>2.5.1 Simulation Programs WBS L3 T Tools</b>								<b>1.60</b>	<b>3.13</b>								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	PSU	PO	KOSKINEN, JASON	Coordinate Deep Core reconstruction for production		0.12		0.120								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	PSU	PO	CABALLERO-MORA, KAREN	develop starting track reconstruction		0.08		0.080								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	PSU	GR	DUNKMAN, MATT	develop starting track reconstruction - hybrid reco.	0.25			0.250								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	SUBR	KE	FAZELY, ALI	Reconstruction/ Analysis tools		0.15		0.15								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	SUBR	KE	IMLAY, RICHARD	Reconstruction/ Analysis tools		0.15		0.15								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	UA	GR	XU, DONGLIAN	Improvements to low energy analysis framework		0.10		0.10								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	UAA	KE	RAWLINS, KATHERINE	flat-ntuple; muon-bundle-reco; Snow correction for IceTop		0.30		0.30								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	UMD	PO	WISSING, HENRIKE	develop & test reconstruction		0.13		0.13								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	UMD	GR	REDL, PETER	Reconstruction/ Analysis tools		0.25		0.25								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	UW	SC	CHIRKIN, DMITRY	Direct photon tracking / iceproperties calibration 0.3 ; FE/pulse extractor 0.1 ; reco software 0.1		0.40		0.40								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	UW	PO	AGUILAR SANCHEZ JUAN A	GRB		0.15		0.15								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	UW	PO	AUFFENBERG, JAN	Energy Reconstruction		0.15		0.15								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	UW	GR	GLADSTONE, LAURA	Reconstruction tools-Deep Core		0.15		0.15								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	UW	GR	RODRIGUES, JOAO-PAULO	Supernova simulation / moun energy reconstruction		0.20		0.20								
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	UW	GR	WHITEHORN, NATHAN	Energy Reconstruction		0.15		0.15								

## IceCube M&amp;O Staffing Matrix sort by WBS v10.0 2011.0422

WBS L2	WBS L3	US / Non-US	Institution	Labor Cat.	Names	Tasks	NSF M&O Core	U.S. IN-KIND	Non U.S. In-Kind	Grand Total											
											Cat.	Description	Cat.	Description	Cat.	Description	Cat.	Description			
											AD	Administration	GR	Graduate Student	PO	Postdoctoral Scientist	TE	Technician	CS	Computer Science Eng.	KE
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	UWRF	KE	MADSEN, JIM	Cosmic ray shower simulations and reconstruction		0.10		0.10											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	US	<b>US Total</b>						<b>0.00</b>	<b>2.83</b>	<b>2.83</b>										
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	CHIBA	KE	YOSHIDA, SHIGERU	Maintain Romeo, EHE Simulations, Calibration using Standard Candles			0.20	0.20											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	CHIBA	SC	KEIICHI MASE	Maintain Romeo, EHE Simulations, Maintain reconstruction projects (Portia), MC/Data comparison for EHE filtered and IceTop events, Standard Candle Analysis			0.20	0.20											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	CHIBA	GR	CHIBA GR	Improve the Ice Model, Afterpulse Simulator, Standard Candle Analysis, Maintain reconstruction projects (Ophelia, ehe-star)			0.20	0.20											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	DESY	GR	MIDDELL, EIKE	Cascade Reconstruction			0.30	0.30											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	EPFL	SC	EPFL SC	SLF, Low Energy, Energy reconstruction (development)			0.25	0.25											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	RWTH	PO	BOERSMA, DAVID RWTH	Reconstruction Coordinator			0.15	0.15											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	RWTH	GR	BLUMENTHAL, JAN	Muon reconstruction			0.10	0.10											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	RWTH	GR	EULER, SEBASTIAN.	Finite track reconstruction			0.20	0.20											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	RWTH	GR	SCHUNCK, MATTHIAS	Energy reconstruction			0.20	0.20											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	RWTH	GR	WALLRAFF, MARIUS	New Feature Extractor			0.30	0.30											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	SU	SC	SEO, SEON-HEE	Photonics/Simulation Work			0.15	0.15											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	VUB	KE	VUB KE	development of reconstruction tools (IcePack framework)			0.25	0.25											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	VUB	PO	BOSE, DEBANJAN	muon track reconstruction in IceCube and DeepCore, waveform feature extractor			0.25	0.25											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	VUB	PO	LABARE, MATHIEU	muon track reconstruction in IceCube and DeepCore			0.13	0.13											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	VUB	PO	BUITIN,STIJN	muon track reconstruction in IceCube and DeepCore, waveform feature extractor			0.13	0.13											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	ALBERTA	KE	GRANT, DARREN	Maintenance of IceCube-Photonics interface			0.10	0.10											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	WUPPERTAL	GR	WUPPERTAL GR	New SUSY Reconstruction, Simulation, Propagation, Monopole, Photonics			0.50	0.50											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	MAINZ	GR	SCHATTO, KAI	Reconstruction Tools			0.30	0.30											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	HUMBOLDT	GR	KISLET, FABIAN	Reconstruction software manager			0.25	0.25											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	HUMBOLDT	KE	HUMB KE	Reconstruction/ Analysis tools			0.10	0.10											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	BONN	GR	UBONN GR	Reconstruction/ Analysis tools			0.20	0.20											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	BONN	GR	PANKNIN, SEBASTIAN	IC-40 L3 processing			0.20	0.20											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	Non-US	<b>Non-US Total</b>						<b>4.65</b>	<b>4.65</b>											
2.5 Data Quality, Reconstruction	2.5.2 Reconstruction/ Analysis Tools	<b>WBS L3 1</b>					<b>0.00</b>	<b>2.83</b>	<b>4.65</b>	<b>7.48</b>											
2.5 Data Quality, Reconstruction	2.5.3 Data Quality	US	UA	KE	WILLIAMS, DAWN	Data Quality Lead		0.15		0.15											
2.5 Data Quality, Reconstruction	2.5.3 Data Quality	US	<b>US Total</b>						<b>0.00</b>	<b>0.15</b>	<b>0.15</b>										
2.5 Data Quality, Reconstruction	2.5.3 Data Quality	Non-US	MAINZ	GR	WIEBE, KLAUS	Checking the low energy level 2 filter			0.20	0.20											
2.5 Data Quality, Reconstruction	2.5.3 Data Quality	Non-US	MPI	PO	MPI PO	Data Quality & DeepCore			0.60	0.60											
2.5 Data Quality, Reconstruction	2.5.3 Data Quality	Non-US	VUB	KE	VUB KE	data quality verification			0.25	0.25											
2.5 Data Quality, Reconstruction	2.5.3 Data Quality	Non-US	VUB	PO	STRAHLER, ERIK	verification Deep Core data quality			0.25	0.25											
2.5 Data Quality, Reconstruction	2.5.3 Data Quality	Non-US	VUB	PO	BOSE, DEBANJAN	verification Deep Core data quality			0.25	0.25											
2.5 Data Quality, Reconstruction	2.5.3 Data Quality	Non-US	VUB	PO	LABARE, MATHIEU	verification Deep Core data quality			0.13	0.13											
2.5 Data Quality, Reconstruction	2.5.3 Data Quality	Non-US	VUB	PO	BUITIN,STIJN	verification Deep Core data quality			0.13	0.13											
2.5 Data Quality, Reconstruction	2.5.3 Data Quality	Non-US	<b>Non-US Total</b>						<b>1.80</b>	<b>1.80</b>											
2.5 Data Quality, Reconstruction	2.5.3 Data Quality	<b>WBS L3 1</b>					<b>0.00</b>	<b>0.15</b>	<b>1.80</b>	<b>1.95</b>											
2.5 Data Quality, Reconstruction	2.5.4 Offline Data Processing	US	UW	SC	HILL, GARY	Offline processing		0.20		0.20											
2.5 Data Quality, Reconstruction	2.5.4 Offline Data Processing	US	UW	PO	AUFFENBERG, JAN	Offline Data Processing - EHE		0.15		0.15											
2.5 Data Quality, Reconstruction	2.5.4 Offline Data Processing	US	UW	PO	KURAHASHI, NAKO	Offline Level 2 Processing		0.20		0.20											
2.5 Data Quality, Reconstruction	2.5.4 Offline Data Processing	US	<b>US Total</b>						<b>0.20</b>	<b>0.35</b>	<b>0.55</b>										
2.5 Data Quality, Reconstruction	2.5.4 Offline Data Processing	Non-US	RWTH	GR	RWTH GR	Development of processing scripts for L2/L1 processing			0.20	0.20											
2.5 Data Quality, Reconstruction	2.5.4 Offline Data Processing	Non-US	<b>Non-US Total</b>						<b>0.20</b>	<b>0.20</b>											
2.5 Data Quality, Reconstruction	2.5.4 Offline Data Processing	<b>WBS L3 1</b>					<b>0.20</b>	<b>0.35</b>	<b>0.20</b>	<b>0.75</b>											
2.5 Data Quality, Reconstruction	<b>WBS L2 Total</b>						<b>1.80</b>	<b>6.45</b>	<b>8.15</b>	<b>16.40</b>											
<b>Grand Total</b>							<b>30.86</b>	<b>22.34</b>	<b>27.03</b>	<b>80.22</b>											