

W. M. KECK OBSERVATORY

California Association for Research in Astronomy

65-1120 Mamalahoa Highway

Kamuela, HI 96743

Phone: (808) 885-7887

Fax: (808) 885-4464

PURCHASE ORDER

PO #

29849

Date

5/6/2010

ABOVE PURCHASE ORDER NUMBER MUST APPEAR ON ALL INVOICES, SHIPPING PAPERS, PACKAGES, BILLS OF LADING AND CORRESPONDENCE.

NOTE: Material may be returned at supplier's expense if the purchase order number is not shown on shipping label.

Invoice to: Accounts Payable

Req Number

| TO: | Instructions |
|--|---|
| REGENTS OF THE UNIV OF CALIFOR C/O UCO/LICK OBSERVATORY 1156 HIGH STREET SANTA CRUZ, CA 95064 Phone: Fax: | <ol style="list-style-type: none"> Invoice each order separately. No price increases will be recognized by the W. M. Keck Observatory (WMKO) without written notice and acceptance thereof prior to shipment. Correspondence should be addressed to the attention of the Purchasing Agent. Cash discount period will begin on date merchandise or invoice is received whichever occurs later. Freight Charges must have copy of freight bill attached. Acceptance of this purchase order constitutes agreement to all terms and conditions attached. <p>Note: If this purchase order constitutes a release of supplies covered by an annual WMKO supply agreement, all of the terms and conditions of the annual agreement also apply to this purchase order.</p> |
| DELIVER TO: W. M. Keck Observatory Adkins, Sean 65-1120 Mamalahoa Highway Kamuela, HI 96743 Phone: (808) 885-7887 Fax: (808) 885-4464 | |

| TERMS | F.O.B. POINT / FREIGHT TERMS | SHIP VIA | | | | |
|--------------|------------------------------|---------------------|-------|-------|------------|--------------|
| Net 30 | Destination | Contractor's Choice | | | | |
| CONFIRMED BY | REQUESTED BY | MSDS | | | | |
| Sharon | Adkins, Sean | No | | | | |
| LINE | PART NUMBER | QUANTITY | UNITS | PRICE | EXT. PRICE | AVAILABILITY |

The Contractor shall provide labor & materials to perform the fabrication, testing and installation of the LRIS Red Channel Detector Upgrade- Mark 2, in accordance with Exhibit "A" attached, hereto, and made a part of this Purchase Order.

| | | | | | |
|-------------------------|-------|-----|--------------|------------|-----------|
| LRIS RED MARK 2 UPGRADE | 1.000 | LOT | 297,372.0000 | 297,372.00 | 9/30/2010 |
|-------------------------|-------|-----|--------------|------------|-----------|

==NOTE==

- 1) This effort is NOT federally funded
- 2) Period of performance: March 15, 2010 - Sept. 30, 2010
- 3) Costs shall not exceed \$297,372.00 without prior approval and issuance of a PO modification.

| APPROVED BY: | DATE |
|--------------|--------|
| | 5/6/10 |

Cindy Chong, Purchasing Agent, Ph (808) 885-7887

| | |
|--------------|---------------------|
| TOTAL | \$297,372.00 |
|--------------|---------------------|

See PO terms and conditions attached.



EXHIBIT A
LRIS Red Channel Detector Upgrade Mark 2
Statement of Work
May 6, 2010

INTRODUCTION

This document describes the work to be undertaken by the Regents of the University of California, UCO/Lick Observatories (UCO) for fabrication, testing, and installation of the mark 2 upgrade (LRIS-Mark 2) to the red channel of the LRIS instrument at the W. M. Keck Observatory (WMKO).

OBJECTIVES AND SCOPE OF WORK

The objective of this effort is to deliver to WMKO a second red side dewar that is interchangeable with the first LRIS red upgrade dewar, with two new science grade LBL 2K x 4K CCDs, and detector electronics, fully tested and characterized. It is expected to be plug compatible with the existing red channel upgrade electronics. To the extent required the software will be updated as required for operation with the new LBL CCDs.

The specific tasks in the scope of work shall include:

- A. Year One Tasks (March 15, 2010 through September 30, 2010)
 - 1. Detailed designs for any revisions required for the second red side dewar
 - 2. Detailed design review with WMKO staff of the revisions
 - 3. Fabrication, assembly, testing, and installation of the following:
 - a. Science grade 2k x 4k LBL detectors
 - b. New dewar
 - c. CCD controller I2C interface (planned in the previous effort but not completed)
 - d. Any required red channel software updates to support the new detectors and I2C interface
 - 4. Integrated testing of the system and revised CCD controller software including full laboratory characterization of the system
- B. Year Two Tasks (October 1, 2010 through February 28, 2011):
 - 5. Final integrated testing of the system and revised CCD controller software including full laboratory characterization of the system.
 - 6. Pre-ship report and review meeting with WMKO staff
 - 7. Shipping to WMKO
 - 8. Installation and commissioning at WMKO including daytime and nighttime testing.

UCO shall furnish facilities, tools, equipment and supplies required to perform the scope of work described herein.



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Instrument Program Management
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DELIVERABLES

The deliverables from the LRIS red channel detector upgrade detailed design phase consist of the following:

1. Monthly reports in the format agreed upon between UCO and WMKO including technical status, schedule and budget status, proposed actions regarding problem areas, anticipated accomplishments in the next month, the current schedule, a graph of earned value compared to budgeted costs and a current financial summary including expenditures to date and projected expenditures to completion for the currently funded phase.
2. Documentation of all changes and additions to the as-built LRIS red detector upgrade. Estimated delivery in July 2010.
3. Detailed design report.
4. The complete hardware and software system for the mark 2 upgrade, consisting of the following major components:
 - a. New red channel dewar with a mosaic of two, 2k x 4k LBNL high resistivity CCDs, LN₂ can, preamp, and ion pump.
 - b. New read out software for the existing ARC SDSU-II red channel upgrade electronics.
 - c. New field flattener installed on the new dewar.
 - d. All instrument software modifications needed to provide full instrument functionality with the mark 2 upgrade installed.
5. Pre-ship report. Pre-ship Review date is estimated for November, 2010.
6. Commissioning plan.

Year One Deliverables shall consist of: Drawings, completion of hardware and start of testing to the extent that funding allows (items 1-4).

Year Two Deliverables shall consist of: Final testing, Pre-ship review, shipping, installation and commissioning (items 1,4-final test, 5 and 6).

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PROJECT ORGANIZATION AND PERSONNEL

This project will be conducted under the instrument development program at the W. M. Keck Observatory. Overall management of the instrument development program is the responsibility of the WMKO instrument program manager, Sean Adkins.

For this project UCO/Lick has assigned the following key personnel:

- Principal Investigator: Constance Rockosi
- Instrument Scientist: Richard Stover
- Project Manager: David Cowley
- Software Manager: Robert Kibrick
- Mechanical Engineer: Chris Lockwood
- Electronics Engineer: Michael Peck

CONTRACT

WMKO will contract for the performance of the SOW using a purchase order accompanied by its standard terms and conditions for educational institutions as applicable to non-Federally funded projects.

FUNDING AND ALLOWABLE COSTS

The total UCO budget for LRIS-Mark 2 is estimated at \$346,793 on a best efforts time and materials basis. Shipping of deliverable item 4 to WMKO, travel and accommodations for UCO personnel, as required, for installation and commissioning are included up to the amount indicated in the UCO estimated budget. The total amount authorized will be \$346,793 and may not be exceeded without prior written request and subsequent written authorization from WMKO.

The budget is shown in appendix A to this SOW and will be authorized as follows:

Year One Funding (March 15, 2010 ending September 30, 2010) is authorized in the amount of: \$297,372

Year Two Funding (October 1, 2010- February 28, 2011) : \$49,422 will be authorized for FY11 (beginning October 1, 2010). WMKO shall issue an amendment to UCO authorizing Year Two funding on or before October 1, 2010. If Year One funding has been fully expended prior to September 30, 2010, UCO, at its discretion, may cease work until Year Two funding amendment has been received from WMKO.



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Costs incurred for the performance of this SOW prior to the receipt of a purchase order from WMKO are allowable for a 60 day period beginning March 15, 2010.

PERIOD OF PERFORMANCE

March 15, 2010 through February 28, 2011. Funding shall be incremental as set forth in SOW section "FUNDING AND ALLOWABLE COSTS".

PAYMENT

Payment will be made on the basis of monthly invoices submitted in arrears. Reports shall itemize costs in a manner consistent with the line items in the detailed budget given in appendix A of this SOW and shall be included with each invoice.

Payment will be made within 30 days of receipt of invoices.

Invoices should be sent by mail to this address:

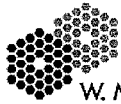
Accounting
 W. M. Keck Observatory
 65-1120 Mamalahoa Highway
 Kamuela, HI 96743

OWNERSHIP

With the exception of publication rights, ownership of all intellectual property, including designs, software and related documents developed by UCO under this SOW will be shared by UCO and WMKO on a non-exclusive basis. Publication rights remain with the intellectual property's originator. WMKO's ownership will begin at the time the costs of producing or acquiring same are paid by WMKO on the basis of submitted invoices as described in the section titled "Payment". For all intellectual property both UCO and WMKO will have without restriction the right to reproduce, modify and reuse said designs and software.

All tangible property, equipment, hardware and materials developed or purchased by UCO under this SOW and incorporated in or supplied as part of any of the deliverables listed in the section titled "Deliverables" will become the property of WMKO at the time the costs of producing or acquiring same are paid by WMKO on the basis of submitted invoices as described the section titled "Payment".

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APPENDIX A

LRIS R Upgrade - Mark 2 Summary by Project Period
REBUDGET

Prepared by: Bev Redfield Currie
 Date on: 4.5.10

| Level 1 | Type2 | Level 2 | 2010 | | | | 2011 | | | | Total Sum of Hour | Total Sum of Labor Cost | Total Sum of Material | Total Sum of Total Cost |
|------------|----------|-------------------------------------|--------------|-------------------|------------------|-------------------|-------------|-------------------|------------------|-------------------|-------------------|-------------------------|-----------------------|-------------------------|
| | | | Sum of Hour | Sum of Labor Cost | Sum of Material | Sum of Total Cost | Sum of Hour | Sum of Labor Cost | Sum of Material | Sum of Total Cost | | | | |
| LRIS R 4K2 | Recharge | Reviews/milestones | 74 | \$ 6,801 | \$ 500 | \$ 6,801 | 104 | \$ 9,391 | \$ 500 | \$ 9,891 | 178 | \$ 15,892 | \$ 1,000 | \$ 16,892 |
| | | Diagnostics | 160 | \$ 12,005 | \$ - | \$ 12,005 | | \$ - | \$ - | \$ - | 180 | \$ 12,005 | \$ - | \$ 12,005 |
| | | Dewar Mechanical | 1,460 | \$ 97,958 | \$ 18,500 | \$ 116,458 | | \$ - | \$ - | \$ - | 1,480 | \$ 97,958 | \$ 18,500 | \$ 116,458 |
| | | Dewar Electrical | 240 | \$ 19,224 | \$ 20,000 | \$ 39,224 | | \$ - | \$ - | \$ - | 240 | \$ 19,224 | \$ 20,000 | \$ 39,224 |
| | | CCD Controller | 320 | \$ 23,269 | \$ 6,000 | \$ 26,269 | | \$ - | \$ - | \$ - | 320 | \$ 23,269 | \$ 6,000 | \$ 29,269 |
| | | Software | 155 | \$ 13,432 | \$ - | \$ 13,432 | 45 | \$ 4,129 | \$ - | \$ 4,129 | 200 | \$ 17,562 | \$ - | \$ 17,562 |
| | | Integrated Testing | 0 | \$ - | \$ - | \$ - | | \$ - | \$ - | \$ - | 0 | \$ - | \$ - | \$ - |
| | | Shipping/Installation/Commissioning | 0 | \$ - | \$ - | \$ - | 80 | \$ 7,154 | \$ 20,000 | \$ 27,154 | 80 | \$ 7,154 | \$ 20,000 | \$ 27,154 |
| | | Project Management | 395 | \$ - | \$ - | \$ - | | \$ - | \$ - | \$ - | 395 | \$ - | \$ - | \$ - |
| | | Recharge Total | 2,694 | \$ 202,810 | \$ 44,000 | \$ 247,810 | 229 | \$ 20,685 | \$ 20,500 | \$ 41,185 | 3,033 | \$ 223,495 | \$ 65,500 | \$ 288,995 |
| | | Contingency (20%) Total | 561 | \$ 40,562 | \$ 9,000 | \$ 49,562 | 46 | \$ 4,137 | \$ 4,100 | \$ 8,237 | 607 | \$ 44,632 | \$ 13,100 | \$ 57,732 |
| | | Grand Total | 3,385 | \$ 243,372 | \$ 54,000 | \$ 297,372 | 275 | \$ 24,822 | \$ 24,600 | \$ 49,422 | 3,640 | \$ 268,127 | \$ 78,600 | \$ 346,727 |

Notes:

- 1 The pay rates are based on February 2010 actuals
- 2 UCO/Lick labor and CDB (approved Recharge Activity) is based on NON-FEDERAL rate (17.4%).
- 3 The project period is 12 months (3/15/10-2/28/11).
- 4 COLA (3%) is applied to each project year period (Year 7/1/10-6/30/11) to UCO/Lick personnel.
- 5 The benefit rate is increased by 4% to UCO/Lick personnel over current base benefit rate (Year 7/1/10-6/30/11).
- 6 FTE is based on annual working hours of 2088 hours
- 7 Academic labor shown is for information purposes only and is estimated to be the Academic labor contribution to this project by UCO. This time will not be reported to WMKO.
- 8 This estimate does NOT include indirect costs. This project is for WMKO fabrication and indirect costs are waived.
- 9 This estimate is based on the availability of LBL science device (estimated value \$50,000) provided to UCO and WMKO at no cost.
 If LBL should request payment for this science device, WMKO shall be obligated to reimburse UCO for this cost which is not included in this estimate.
- 10 Periods are based on WMKO fiscal year (Oct-1 - Sep 30). Period 2010 = 3/15/10 - 9/30/10 (6.5 months). Period 2011 = 10/1/10 - 2/28/11 (5 months).
- 11 Any changes to the scope of work or deliverables will be subject to additional costs.
- 12 Contingency of 20% is calculated only on non-Academic time.
- 13 Prep for Pre Shipping Review, Pre Shipping Review, and 45 hours of software effort has been rebudgeted to FY2011.
- 14 FY2011 benefit rates and COLA rates have increased the rebudgeted grand total to over the original \$345,823 amount.

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W.M. Keck Observatory
Terms and Conditions for Awards to
Educational Institutions and Non-profit Organizations

THE MATERIALS, PRODUCTS, OR SERVICES FURNISHED UNDER THIS PURCHASE ORDER ARE FOR USE IN CONNECTION WITH A GRANT, COOPERATIVE AGREEMENT, RESEARCH GIFT, CONTRACT, OR SUB-CONTRACT RECEIVED BY WMKO FROM A PRIME AWARD SPONSOR TO SUPPORT RESEARCH AND PUBLIC SERVICE.

1. Scope of Work. Subawardee agrees to use all reasonable efforts to perform the work or services in accordance with the statement of work and budget as indicated in Exhibit A, which is attached hereto and made a part of this Agreement. In its performance of the work, Subawardee shall be an independent entity and not an employee or agent of WMKO.

2. Period of Performance. The period of performance shall be as stated in Exhibit A and shall be extended only by mutual agreement of the parties in writing. No costs shall be paid which are incurred prior to the Start Date or subsequent to the End Date unless the prior written approval of WMKO is obtained.

3. Compensation. WMKO shall reimburse Subawardee for allowable costs incurred as identified in the budget referenced in Exhibit A. The amount currently available for payment and allotted to this Agreement is also shown in Exhibit A. If applicable, WMKO will allot additional funds incrementally to this Agreement up to the full estimated cost; however, such additional funding is contingent upon receipt by WMKO of funding increments for the Prime Award under which this Agreement is made. This amount shall not be exceeded without the prior written approval of WMKO.

4. Technical Representatives. Matters concerning the technical performance of this Agreement shall be directed to the appropriate party's Technical Representative, as shown in Exhibit A. WMKO must be notified immediately if there is a change in Subawardee's Technical Representative and WMKO shall have the right to approve any successor.

5. Contract Representatives. Matters concerning changes in the terms, conditions, or amounts cited in this Agreement shall be directed to the appropriate party's Administrative Contact, as shown in Exhibit A. Any such changes made to this Agreement require the written approval of each party's Administration Contact.

6. Prime Award Terms. This subaward is subject to the terms and conditions of the Prime Award and other special terms and conditions as identified in Exhibit A. In case of any conflict, the Prime Award shall take precedence.

7. Cost Limitation. If, at any time, Subawardee has reason to believe that the cost for the performance will be greater than the estimated cost stated herein, Subawardee shall notify WMKO in writing to that effect, giving a revised estimate of the cost of completion of performance. WMKO shall not be obligated to reimburse Subawardee for the costs incurred in excess of the estimated cost specified in Exhibit A, and Subawardee shall not be obligated to incur costs in excess of such estimated costs unless and until WMKO has notified Subawardee in writing that the estimated cost has been increased appropriately. Upon expenditure of the estimated cost specified in this agreement, Subawardee's obligation to continue performance shall cease.

8. Budget and Allowable Cost. Subawardee shall make expenditures in accordance with its approved budget. No other costs shall be allowed. The allowability of costs shall be determined in accordance with the cost principles applicable to the Subawardee's type of organization as follows: for Educational Institutions: (OMB Circular A-21); for Nonprofit organizations:

(OMB Circular A-122). The indirect costs referred to in the budget as "overhead" are to be paid in accordance with the rate set forth in Subawardee's approved indirect cost rate agreement with its Federal Cognizant Agency or, in the absence of an approved rate agreement, as agreed to by WMKO.

9. Payment. WMKO shall reimburse Subawardee not more than monthly for allowable costs. All invoices shall be submitted using Subawardee's standard invoice, but as a minimum shall include current and cumulative costs identified by line item similar to the approved budget (including cost sharing), subaward number, and certification as to truth and accuracy of invoice. Invoices and questions concerning invoice receipt or payments should be directed to the appropriate party's Financial Contact, as shown in Exhibit A.

All costs incurred under this Agreement must be based on actual costs and are subject to audit. Substantiating documents (e.g., travel receipts, invoices, etc.) shall be retained and the Subawardee is expected to keep accurate accounting of all costs incurred in the performance of this Agreement. All payments shall be considered provisional and subject to adjustment within the total estimated cost in the event such adjustment is necessary as a result of an adverse audit finding against the Subawardee. A final statement of costs incurred, marked "FINAL" must be submitted to the Accounting Department] not later than sixty (60) days after subaward end date.

10. Reports/Deliverables. Progress reports summarizing progress on work being performed under this Agreement shall be submitted to WMKO's Technical Representative as described in the Statement of Work. Progress reports should include a summary statement of progress toward the achievement of the originally stated aims; a list of the results, positive or negative, considered significant by the Subawardee and a list of publications resulting from the project with plans, if any, for further publications. Within ninety (90) days following the expiration or termination of this Agreement, Subawardee shall furnish WMKO's Technical Representative with an original and two (2) copies of a final performance report that covers the entire period of support. Also, within ninety (90) days following expiration or termination of this Agreement Subawardee shall submit a final invention report as specified in Article 11.

11. Inventions, and Patent Rights. The determination of rights of ownership and disposition of rights to inventions made in the performance of work under this Agreement will be made in accordance with the Prime Award or U.S. Patent Law. Subawardee agrees to notify WMKO of any inventions made under this Agreement within 60 days of disclosure. Subawardee hereby grants to WMKO and to Prime Award Sponsor a royalty-free, non-exclusive and irrevocable right to practice any invention conceived or first actually reduced to practice in the performance of work under this Agreement to the extent required to meet WMKO's obligation under the Prime Award.

12. Copyrights. Except as otherwise provided in the conditions of the Prime Award, when publications or similar materials are developed from work supported in whole or in part by this Agreement, the author is free to arrange for copyright without approval. A copy of such materials shall be provided to WMKO. Any such copyrighted or copyrightable materials shall be subject to a royalty-free, nonexclusive, and irrevocable license to WMKO and Prime Award Sponsor to reproduce, publish, or otherwise use them and to authorize others to do so to the extent required to meet WMKO's obligation under the Prime Award.

13. Equipment Accountability. For the purpose of this Agreement, equipment shall be defined as an item of property that

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has an acquisition cost of \$5,000 or more, or the lesser of the capital acquisition cost as determined by the Subawardee, and an expected service life of two or more years. The Subawardee shall utilize sound purchasing and inventory procedures and maintain adequate records to account for the purchase, inventory, and disposition of equipment acquired under this Agreement. Title to equipment purchased or fabricated by Subawardee under this Agreement shall vest with the Subawardee, provided the equipment is used for authorized activities of the project.

14. Acknowledgment of Support. Two (2) reprints of publications resulting from work performed in whole or in part under this Agreement shall be submitted to WMKO. All materials, produced as part of this project, including electronic components such as World Wide Web pages, must include a clear indication of sources of support as follows:

(a) An acknowledgment of the Prime Award and WMKO support and the disclaimer in Article 15 must appear in the publication of any material, whether copyrighted or not, based on or developed under this project, in the following terms:

"This material is based on work supported by [PRIME AWARD SPONSOR] under [prime award number] and The W.M. Keck Observatory."

(b) All materials except scientific articles or papers published in scientific journals must also contain the following:

"Any opinions, findings, and conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of [PRIME AWARD SPONSOR] or The W.M. Keck Observatory."

15. Disclaimer. The Subawardee is responsible for assuring that every publication of material (including World Wide Web pages) based on or developed under this Agreement, except scientific articles or papers appearing in scientific, technical, or professional journals, contains the following disclaimer:

"Any opinions, finding, and conclusions or recommend-ations expressed in this material are those of the author(s) and do not necessarily reflect the views of the [PRIME AWARD SPONSOR]."

16. Termination. WMKO shall have the right to terminate performance under this Agreement if at any time for convenience or cause and in whole or in part, by notifying Subawardee in writing. In the event of such termination, Subawardee agrees to deliver such information and items which, if the Agreement had been completed, would have been required to be furnished to WMKO, including partially completed plans, drawings, data, documents, surveys, maps, reports, and models. Reimbursement will be limited to documented costs incurred prior to termination and non-cancelable commitments incurred prior to the effective date of termination, except in no event shall such reimbursement exceed the amount set forth in the article entitled "Cost Limitation." The allowability of costs in the event of termination shall be determined in accordance with OMB Circular A-21 or A-122, as applicable. Within sixty (60) days after termination, Subawardee shall submit a final invoice to WMKO and WMKO shall promptly make payment to Subawardee of the amount due. All reasonable efforts shall be made to cancel any commitments scheduled for delivery after the termination date.

17. Excusable Delays. The Subawardee shall notify WMKO in writing within 10 days from notification of any delay in the performance of specified services, and shall specify the proposed revised delivery date as soon as practicable after notice of delay. Subawardee shall not be liable for delays in performance or delivery due to causes beyond its reasonable control, and not otherwise due to its fault or negligence. In the event of such delay,

the date of performance or delivery shall be extended for a period equal to the time lost due to said delay on written approval of WMKO.

18. Subcontracts. Subawardee shall not subcontract any of the research effort required hereunder without prior written approval of WMKO.

19. Liability to Third Parties. Each party shall be responsible for its negligent acts and omissions and the negligent acts and omissions of their respective employees, officers, agents or directors.

20. Confidentiality. Both parties agree to treat as confidential all written information related to this Agreement, not in the public domain, that is supplied by the other party and is labeled as "Confidential," "Proprietary," or similar mark of notice, or when first supplied verbally, that is reduced to writing and labeled "Confidential" or "Proprietary" within 30 days of disclosure, including drawings, blueprints, and other technical data (collectively referred to as "Documents").

21. Audit and Examination of Records. (a) Financial records, supporting documents, and all other records pertinent to this Agreement shall be retained for a period of four (4) years from the date of termination of this Agreement. Records that are the subject matter of audits, appeals, litigation, or the settlement of claims arising out of the performance of this agreement shall be retained until such audits, appeals, litigations, or claims have been disposed of. Unless court actions or audit proceedings have been initiated, Subawardee may substitute copies made by microfilming, photocopying, or similar methods for the original records. (b) WMKO, the Prime Award Sponsor, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, paper and records of Subawardee which are directly pertinent to this Agreement for the purpose of making audits, examinations, excerpts and transcriptions. Any expenditure disallowed by audit exception will be reimbursed by Subawardee, after appropriate appeals.

22. Statutory and Administrative Provisions. By accepting this Agreement, Subawardee certifies that it will comply with all applicable Federal Standards and requirements set forth in OMB Circulars A-110 and A-133. Subawardee acknowledges and agrees that, as part of WMKO's implementation of OMB Circular A-133, WMKO will monitor Subawardee's performance under this sub-award and Subawardee shall provide WMKO with copies of A-133 reports, when applicable, or inform WMKO when there are no management findings.

23. Governing Law. This Agreement shall be interpreted and applied according to the laws of the State of California.

24. On-Site Activities. At all times when Awardee is on any site owned or controlled by WMKO, including the Summit of Mauna Kea on the Island of Hawaii, Subawardee shall abide by all of WMKO's environmental, health, and safety rules applicable to the site and shall maintain statutory Worker's Compensation insurance, customary amounts of public liability, bodily injury, and property damage insurance. Upon request from WMKO, Subawardee shall provide certificates of insurance or other satisfactory evidence of financial responsibility.

25. Entire Agreement. The Agreement constitutes the entire understanding between the parties. Any changes or modifications shall be accomplished by a written amendment to this Agreement executed by the duly authorized representatives of the parties.