

(A Nonprofit California Public Benefit Corporation)

**Financial Statements** 

September 30, 2011 and 2010

(With Independent Auditors' Report Thereon)



KPMG LLP PO Box 4150 Honolulu, HI 96812-4150

## **Independent Auditors' Report**

The Board of Directors California Association for Research in Astronomy:

We have audited the accompanying statements of financial position of California Association for Research in Astronomy (CARA) as of September 30, 2011 and 2010, and the related statements of activities and cash flows for the years then ended. These financial statements are the responsibility of CARA's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of CARA's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of California Association for Research in Astronomy as of September 30, 2011 and 2010, and the changes in its net assets and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

KPMG LIP

February 17, 2012

## **CALIFORNIA ASSOCIATION** FOR RESEARCH IN ASTRONOMY **DBA W.M. KECK OBSERVATORY** (A Nonprofit California Public Benefit Corporation)

## Statements of Financial Position

## September 30, 2011 and 2010

Assets	-	2011	2010
Current assets:			
Cash and cash equivalents	\$	12,814,838	13,522,322
Receivables:			
National Science Foundation		280,700	70,021
Jet Propulsion Laboratory		274,588	318,870
National Aeronautics and Space Administration		204,811	4,092
Center for Adaptive Optics Other		40 202	6,139
Prepaid expenses		48,383 28,066	22,650 51,040
riepaid expenses	-	28,000	51,040
Total current assets		13,651,386	13,995,134
Property and equipment, at cost less accumulated		01.006.004	00 514 204
depreciation	-	91,806,294	89,514,284
Total assets	\$	105,457,680	103,509,418
Liabilities and Net Assets			
Current liabilities:			
Accounts payable and accrued expenses:			
University of California	\$	122,563	310,045
California Institute of Technology		610,125	581,319
Other		2,267,846	2,266,595
Advances:			
University of California:			
Observatory operations		9,386,237	8,800,793
Association of Universities for Research in		710.004	1 477 057
Astronomy		710,984	1,477,057
Other	-	30,906	
Total current liabilities	-	13,128,661	13,435,809
Net assets:			
Unrestricted		92,066,490	89,698,733
Temporarily restricted	-	262,529	374,876
Total net assets		92,329,019	90,073,609
Commitments	-		
Total liabilities and net assets	\$	105,457,680	103,509,418

See accompanying notes to financial statements

## **CALIFORNIA ASSOCIATION** FOR RESEARCH IN ASTRONOMY **DBA W.M. KECK OBSERVATORY** (A Nonprofit California Public Benefit Corporation)

## Statements of Activities

## Years ended September 30, 2011 and 2010

	2011		2010
Changes in unrestricted net assets:			
Unrestricted operating support and revenues:			
Contributions	\$	75,745	98,974
Operating revenue:			
University of California:			
Observatory operations		11,972,464	10,955,856
National Aeronautics and Space Administration		4,289,544	3,084,155
National Science Foundation		1,449,214	694,542
Association of University Research Astronomers		1,347,013	2,245,650
Jet Propulsion Laboratory		1,191,364	1,509,764
Center for Adaptive Optics			21,551
Other		2,799	
Interest earned observatory operations		292,840	296,567
Other income		193,239	148,928
Satisfaction of equipment acquisition restrictions	-	512,182	1,146,444
Total unrestricted revenues	_	21,326,404	20,202,431
Expenditures:			
Program services:			
Observatory operations		16,115,783	15,147,270
Research		5,161	125,351
Administrative and general		2,413,273	2,818,712
Fund-raising	_	424,430	445,504
Total expenditures	_	18,958,647	18,536,837
Change in unrestricted net assets	_	2,367,757	1,665,594
Change in temporarily restricted net assets:			
Contributions, net		398,437	305,865
Interest earned		1,398	21,033
Net assets released from restrictions	_	(512,182)	(1,146,444)
Change in temporarily restricted net assets	_	(112,347)	(819,546)
Change in net assets		2,255,410	846,048
Net assets at beginning of year		90,073,609	89,227,561
Net assets at end of year	\$	92,329,019	90,073,609

See accompanying notes to financial statements.

## **CALIFORNIA ASSOCIATION** FOR RESEARCH IN ASTRONOMY **DBA W.M. KECK OBSERVATORY** (A Nonprofit California Public Benefit Corporation)

### Statements of Cash Flows

## Years ended September 30, 2011 and 2010

	_	2011	2010
Cash flows from operating activities:			
Change in net assets	\$	2,255,410	846,048
Adjustments to reconcile change in net assets to net			
cash provided by operating activities:			
Depreciation		4,867,303	5,217,340
Net gain on disposal of property and equipment		(33,838)	(43,541)
Decrease (increase) in assets:			
Receivables, net		(386,710)	210,142
Prepaid expenses		22,974	17,287
Increase (decrease) in liabilities:			
Accounts payable and accrued expenses		(157,425)	(119,287)
Advances	_	(149,723)	1,569,663
Net cash provided by operating activities	_	6,417,991	7,697,652
Cash flows from investing activities:			
Purchases of property and equipment		(7,159,313)	(6,783,961)
Proceeds on sale of property and equipment	_	33,838	43,541
Net cash used in investing activities	_	(7,125,475)	(6,740,420)
Net increase (decrease) in cash and cash equivalents		(707,484)	957,232
Cash and cash equivalents at beginning of year		13,522,322	12,565,090
Cash and cash equivalents at end of year	\$ _	12,814,838	13,522,322

See accompanying notes to financial statements.

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Notes to Financial Statements

September 30, 2011 and 2010

#### (1) **Description of Reporting Entity**

California Association for Research in Astronomy (CARA) is a nonprofit corporation formed by the California Institute of Technology (Caltech) and the University of California (UC) in January 1985 to build and operate the W.M. Keck Observatory (Observatory) on the summit of Mauna Kea in Hawaii. Tax exempt under Section 501(c)(3) of the Internal Revenue Code, CARA is a nonprofit California public benefit corporation and, as such, is qualified as a nonprofit corporation in the state of Hawaii.

The principal purpose of CARA is to foster astronomical research and to provide technical direction for the development and operation of astronomical facilities on the island of Hawaii, principally on land owned by the state of Hawaii, leased to the University of Hawaii, and subleased to Caltech. The Observatory is owned by Caltech and is leased to CARA for \$1 per year. In consideration for subleasing the land to Caltech for \$1 per year through 2033, the University of Hawaii receives an opportunity to use the Observatory and related facilities and improvements. The astronomical facilities include two 10-meter telescopes (Keck I and Keck II), related instrumentation, adaptive optics technology, support facilities, and required infrastructure improvements.

The costs of development of the Observatory and the development of adaptive optics technology were borne by Caltech, the majority of which were funded by grants from the W.M. Keck Foundation (the Foundation). Caltech's maximum liability for Keck I and Keck II development costs was \$75,222,000, measured in 1984 dollars, and \$78,600,000, measured in 1990 dollars, respectively. The Foundation's grant to Caltech for adaptive optics technology was \$6,300,000.

UC provided financial support to CARA for preoperating costs during the Observatory's development periods, acquisition of focal plane instrumentation, and observatory operations. UC provides continuing operating support for Keck I operations in the amount of \$3,500,000 per year, which continues through fiscal year 2017, and \$1,750,000 for the six-month period ending March 31, 2018, all measured in 1984 dollars. UC provides support for Keck II operations in the amount of \$2,105,000 per year, which continues through fiscal year 2017, and \$1,052,500 for the six-month period ending March 31, 2018, all measured in 1990 dollars. For fiscal years 2011 and 2010, UC provided operating support for Keck I operations of \$7,592,235 and \$7,506,380, respectively. For fiscal years 2011 and 2010, UC provided operating support for Keck II operations of \$4,965,674 and \$4,774,687, respectively.

During 1993, Caltech and UC modified their original funding and governance agreement. Certain modifications provided for third-party participation by the National Aeronautics and Space Administration (NASA) in the funding of the costs of the Observatory. In a cooperative agreement between Caltech and NASA, NASA contributed \$44,005,000 to Caltech through fiscal year 2000 in return for collaboration in the project.

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#### (2) Summary of Significant Accounting Policies

#### (a) Financial Statement Presentation

The accompanying financial statements have been prepared on the accrual basis of accounting in accordance with U.S. generally accepted accounting principles (GAAP).

CARA follows the requirements of Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Section 958-205-45-2, *Not-for-Profit Entities – Presentation of Financial Statement – Other Presentation Matters*. Under FASB ASC Section 958-205-45-2, CARA is required to report information regarding its financial position and activities according to three classes of net assets: unrestricted net assets, temporarily restricted net assets, and permanently restricted net assets based upon the existence or absence of donor-imposed stipulations. Accordingly, net assets of CARA and changes therein are classified and reported as follows:

**Unrestricted Net Assets** – net assets that are not subject to donor-imposed stipulations and that may be expended for any purpose in performing the objectives of CARA.

**Temporarily Restricted Net Assets** – net assets subject to donor-imposed stipulations that may or will be met either by actions and/or the passage of time. As the restrictions are satisfied, temporarily restricted net assets are reclassified and reported in the accompanying financial statements as net assets are released from restrictions.

**Permanently Restricted Net Assets** – net assets subject to donor-imposed stipulations that resources must be maintained in perpetuity. As of September 30, 2011 and 2010, CARA had no permanently restricted net assets.

#### (b) Cash and Cash Equivalents

For purposes of the statements of cash flows, CARA considers all highly liquid instruments with original maturities of three months or less to be cash equivalents. As of September 30, 2011 and 2010, CARA had cash and cash equivalents in an account with UC totaling \$11,484,391 and \$11,224,389, respectively.

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#### (c) Property and Equipment

Expenditures incurred by CARA for observatory instrumentation and facilities, operating equipment, and vehicles are capitalized at cost, and depreciated when placed in service. Depreciation is provided over the estimated useful lives of the respective assets using the straight-line method. The estimated useful lives are as follows:

Class of assets	Estimated useful lives
Observatory instrumentation	10 – 20 years
Observatory facility	3 – 15 years
Vehicles and equipment	3-25 years

CARA reports contributions designated by donors to acquire long-lived assets as restricted support. Absent explicit donor stipulations about how long those long-lived assets must be maintained, CARA reports expirations of donor restrictions when the acquired long-lived assets are placed in service.

#### (d) Advances

Operating and instrumentation funds received from UC are recorded as advances until expended for operating expenditures, observatory instrumentation, or vehicles and equipment. Funds received from the Association of Universities for Research in Astronomy (AURA) for the purpose of developing certain instruments for the Keck telescopes or adaptive optics development are recorded as advances until expended for their stated purpose.

#### (e) Contributions

Contributions are recorded in the period received. CARA reports gifts as restricted support if they are received with donor-imposed stipulations that limit the use of the donated assets. When a donor restriction expires, that is, when a stipulated time restriction ends or purpose restriction is accomplished, temporarily restricted net assets are reclassified to unrestricted net assets and reported in the statements of activities as net assets released from restrictions.

As described in note 1, CARA leases the observatory and related facilities and improvements from Caltech for \$1 per year. As the use of the Observatory is so specific that there is no assignable value, it is impractical to determine a fair rental value to be reported as contribution revenue in the accompanying statements of activities.

#### (f) Use of Estimates

The preparation of the financial statements in accordance with GAAP requires management of CARA to make a number of estimates and assumptions relating to the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements

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and the reported amounts of revenues and expenses during the reporting period. Significant items subject to such estimates and assumptions include the carrying amount of property and equipment and valuation allowances for receivables. Actual results could differ from those estimates.

#### (g) Long-Lived Assets

Long-lived assets, such as property and equipment, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If circumstances require a long-lived asset be tested for possible impairment, CARA first compares undiscounted cash flows expected to be generated by an asset to the carrying value of the asset. If the carrying value of the long-lived asset is not recoverable on an undiscounted cash flow basis, an impairment is recognized to the extent that the carrying value exceeds its fair value. Fair value is determined through various valuation techniques, including discounted cash flow models, quoted market values, and third-party independent appraisals, as necessary.

#### (h) Sponsored Programs, Grants, and Contracts

Governmental and private grants and contracts normally provide for the recovery of direct and indirect costs, subject to audit. CARA recognizes revenues associated with direct costs as incurred. Indirect costs recovered on federally sponsored programs are based on cost reimbursement rates negotiated with CARA's cognizant agency, the Office of Naval Research. Indirect costs recovered on all other grants and contracts are based on rates negotiated with the respective parties.

#### (i) Subsequent Events

In 2011, the National Aeronautics and Space Administration (NASA) notified CARA that upon completion of its extended contract period of September 30, 2012, it would cease funding for development and operation of the Interferometer instrumentation. Management is exploring opportunities of alternative sources of funding or uses for the instrumentation. In the event that no viable alternatives are identified by September 30, 2012, the Interferometer will be rendered idle, until adequate resources become available to complete the project and fund annual operations or an alternative use is identified. The Interferometer instrumentation is recorded as construction in progress of approximately \$37.1 million at September 30, 2011 in the accompanying statements of financial position. An estimated \$1 million is necessary to complete the instrumentation to its original project requirements and to be fully placed in service. Management deems that there is no impairment to the asset as of September 30, 2011.

CARA has evaluated subsequent events from the balance sheet date through February 17, 2012, the date at which the financial statements were available to be issued. There are no other matters to disclose.

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#### (3) NASA Funding Agreements

In 2008, NASA awarded CARA a new five-year cooperative agreement for telescope viewing time, infrastructure renewal, and the development of an archived database. Revenues under the cooperative agreement were \$4,289,544 and \$3,084,155 in 2011 and 2010, respectively.

#### (4) Jet Propulsion Laboratory (JPL) Agreements

In 2005, CARA entered into a \$7,284,011 cost-reimbursement subcontract with JPL for the Keck Interferometer project. In 2007, JPL renewed the contract for an additional \$5,142,000 through September 30, 2008. In 2009, JPL extended the subcontract for an additional \$2,114,000 through December 30, 2010. In 2011, JPL extended the contract for an additional \$990,000 through September 30, 2012. During fiscal 2011 and 2010, \$1,233,284 and \$1,619,379, respectively, was received under the subcontract.

Revenues under the cost-reimbursement subcontract were \$1,189,010 and \$1,493,409 in 2011 and 2010, respectively. Amounts due to CARA under the cost-reimbursement subcontract of \$274,588 and \$318,870 as of September 30, 2011 and 2010, respectively, are included as receivables in the accompanying statements of financial position.

#### (5) Association of Universities for Research in Astronomy Agreements

In 2004, CARA entered into a fixed price contract with AURA for adaptive optics development. CARA was awarded and advanced \$1,080,981 for the development of the next generation of optical wavefront sensor detectors.

In 2005, CARA entered into a fixed price contract with AURA for Keck I instrumentation development. In 2005, CARA was awarded \$2,452,629 for the design of MOSFIRE, a Multi-Object Spectrograph for Infra-Red Exploration. In 2007, the fixed price contract was revised to provide additional funding of \$4,913,664 for the MOSFIRE project.

In 2008, CARA entered into a fixed price contract with AURA for next-generation adaptive optics (NGAO) development. CARA was awarded \$2,047,360 for the preliminary design phase of the next generation of optical wavefront sensor detectors.

In 2009, CARA entered into a fixed price contract with AURA for a sodium-wavelength development program. CARA was awarded \$300,000 to procure three sodium-wavelength design studies.

In 2010, CARA entered into a fixed price contract with AURA for Keck II instrumentation development. CARA was awarded \$1,228,416 to construct the Keck Cosmic Web Imager.

In 2011, CARA entered into a new fixed price contract with AURA for Keck II instrumentation development. CARA was awarded \$1,228,416 to continue constructing the Keck Cosmic Web Imager.

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Revenues recognized under these contracts with AURA amounted to \$1,347,013 and \$2,245,650 in 2011 and 2010, respectively. As of September 30, 2011 and 2010, unspent receipts under the AURA contracts amounted to \$710,984 and \$1,477,057, respectively, and are included as advances in the accompanying statements of financial position.

#### (6) National Science Foundation (NSF) Award

In 2006, NSF awarded CARA a two-year \$1,958,000 grant to upgrade the Interferometer instrument of which \$0 and \$557,378, respectively, was received in 2011 and 2010.

In 2009, NSF awarded CARA a three-year \$1,355,500 grant to improve the Keck II laser launch facility of which \$565,046 and \$114,523, respectively, was received in 2011 and 2010.

In 2010, NSF awarded CARA a four-year \$1,716,000 grant to develop the Keck I laser guide star adaptive optics facility of which \$884,168 and \$2,000, respectively, was received in 2011 and 2010.

Revenues recognized under these contracts with NSF amounted to \$1,449,214 and \$694,542 in 2011 and 2010, respectively.

#### (7) Contributions Receivable

Contributions receivable represent unconditional promises to give by donors. In accordance with FASB ASC Section 958-605-25, *Not-for-Profit Entities – Recognition – Promises to Give*, contributions receivable are recorded at their estimated fair value. Amounts due more than one year later are recorded at the present value of the estimated future cash flows, discounted at a risk-free rate applicable to the year in which the promise was received. There were no contributions receivable at September 30, 2011 and 2010.

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#### (8) **Property and Equipment**

A summary of property and equipment at September 30, 2011 and 2010 follows:

	_	2011	2010
Instrumentation:			
Property and equipment Construction in progress	\$	54,846,035 55,860,774	54,823,973 52,298,797
	_	110,706,809	107,122,770
Adaptive optics:			
Property and equipment		11,244,207	11,244,207
Construction in progress	-	10,934,058	8,869,271
	_	22,178,265	20,113,478
Infrastructure:			
Property and equipment		2,737,303	2,582,652
Construction in progress	-	3,088,865	2,180,109
		5,826,168	4,762,761
Vehicles and equipment		4,217,161	3,841,879
Less accumulated depreciation	_	(51,122,109)	(46,326,604)
	\$	91,806,294	89,514,284

Depreciation expense amounted to \$4,867,303 in 2011 and \$5,217,340 in 2010.

#### (9) Income Taxes

CARA has received a determination from taxing authorities that it is an organization exempt from taxation under Section 501(c)(3) of the U.S. Internal Revenue Code and Section 23701d of the California Revenue and Taxation Code and is generally not subject to federal or state income taxes. However, CARA is subject to income taxes on any net income derived from a trade or business, regularly carried on, and not in furtherance of the purposes for which it was granted exemption. No income tax provision has been recorded as the net income, if any from any unrelated trade or business, in the opinion of management, is not material to the financial statements taken as a whole.

In accordance with FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* (included in FASB ASC Subtopic 740-10 – *Income Taxes* – *Overall*, CARA recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. Prior to the adoption of Interpretation 48, CARA recognized the effect of income tax positions only is such positions were probable of being sustained.

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#### (10) Related-Party Transactions

Caltech and UC provide various instrument and adaptive optics development services to CARA. During fiscal years 2011 and 2010, total expenditures for these services charged to CARA were \$1,592,357 and \$1,321,917, respectively, by Caltech, and \$466,993 and \$869,669, respectively, by UC.

#### (11) Commitments

CARA entered into various contractual agreements for operations, laser guide star and adaptive optics systems, observatory construction and development of instrumentation and interferometry systems. A summary of commitments at September 30, 2011 follows:

Operations	\$ 1,198,897
Laser guide star and adaptive	
optics systems	590,631
Instrumentation	503,340
Interferometry systems	 75,578
Total	\$ 2,368,446

#### (12) Board-Designated Net Assets

In 2006, CARA established a board-designated Director's Fund separate from its unrestricted, undesignated net assets for receipt of all unrestricted contributions and their subsequent expenditures. In 2011 and 2010, CARA received contributions of \$75,746 and \$98,974, respectively, which were board designated for the Director's Fund. At September 30, 2011 and 2010, \$243,618 and \$167,872, respectively, was available in the fund.

#### (13) Temporarily Restricted Net Assets

In December 2005, CARA received a restricted contribution pledge of \$4,899,875 for Keck I instrumentation development of MOSFIRE. In 2011 and 2010, \$153,521 and \$1,005,698, respectively, of temporarily restricted net assets were released from restriction in satisfaction of equipment acquisition restrictions. At September 30, 2011 and 2010, after discounting the pledge and receipt of interest earned and pledge payments, \$0 and \$152,123, respectively, was available for instrument development.

In 2006, CARA established a Rising Stars fund to accept contributions in support of the Observatory's sponsored education programs. At September 30, 2011 and 2010, \$0 and \$14,378, respectively, was available in this program.

CARA received various restricted contributions for instrument development and advancement activities totaling \$398,437 and \$299,123, respectively, in 2011 and 2010. In 2011 and 2010, \$344,283 and \$140,746, respectively, of temporarily restricted net assets were released from restriction in satisfaction of equipment acquisition and advancement activity restrictions. At September 30, 2011 and 2010, \$262,529 and \$208,377, respectively, was available for these activities.

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#### (14) Deferred Compensation 403(b) Plan

CARA has a defined contribution retirement plan (the Plan), which was established under Section 403(b) of the U.S. Internal Revenue Code. All eligible employees participate in the Plan. An eligible employee is defined as an employee regularly scheduled to work at least 20 hours per week subject to the appropriate waiting period as defined in the Plan. CARA is required to make contributions to the Plan at various percentages of base salary depending on the participant's age and grade. Contributions to the Plan amounted to \$739,755 and \$789,976 for fiscal years 2011 and 2010, respectively.