



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

Financial Statements

September 30, 2010 and 2009

(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, 2010 and 2009, 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, 2010 and 2009, 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 LLP

February 15, 2011

**CALIFORNIA ASSOCIATION
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Statements of Financial Position

September 30, 2010 and 2009

Assets	2010	2009
Current assets:		
Cash and cash equivalents	\$ 13,522,322	12,565,090
Receivables, net:		
Jet Propulsion Laboratory (note 4)	318,870	444,840
National Science Foundation (note 6)	70,021	49,380
Center for adaptive optics	6,139	11,777
National Aeronautics and Space Administration (note 3)	4,092	28,725
Contributions receivable, net (note 7)	—	50,000
Other	22,650	47,192
Prepaid expenses	51,040	68,327
Total current assets	13,995,134	13,265,331
Property and equipment, at cost, less accumulated depreciation (notes 8 and 11)	89,514,284	87,947,663
Total assets	\$ 103,509,418	101,212,994
Liabilities and Net Assets		
Current liabilities:		
Accounts payable and accrued expenses:		
University of California	\$ 310,045	249,117
California Institute of Technology	581,319	500,980
Other	2,266,595	2,527,149
Advances (note 2):		
University of California:		
Observatory operations	8,800,793	7,475,580
Association of Universities for Research in Astronomy (note 5)	1,477,057	1,232,607
Total current liabilities	13,435,809	11,985,433
Net assets:		
Unrestricted:		
Undesignated	89,530,861	87,964,242
Board designated (note 12)	167,872	68,898
Temporarily restricted (note 13)	374,876	1,194,421
Total net assets	90,073,609	89,227,561
Commitments (notes 11 and 14)		
Total liabilities and net assets	\$ 103,509,418	101,212,994

See accompanying notes to financial statements.

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Statements of Activities

Years ended September 30, 2010 and 2009

	2010	2009
Changes in unrestricted net assets (notes 1 and 2):		
Unrestricted operating support and revenues:		
Contributions (note 12)	\$ 98,974	172,066
Operating revenue:		
University of California:		
Observatory operations	10,955,856	11,886,872
National Aeronautics and Space Administration (note 3):		
Observatory operations	3,084,155	3,183,653
Association of Universities for Research in Astronomy (note 5)	2,245,650	2,616,458
Jet Propulsion Laboratory (note 4)	1,509,764	2,133,272
National Science Foundation (note 6)	694,542	692,982
Center for adaptive optics	21,551	41,887
Other	—	13,640
Interest income:		
Operations	296,567	293,739
Other income	148,928	172,928
Net assets released from restriction:		
Satisfaction of equipment acquisition restrictions (note 13)	1,146,444	1,223,562
Total unrestricted operating support and revenues	20,202,431	22,431,059
Expenses (notes 10 and 14):		
Program services:		
Observatory operations	15,147,270	15,554,667
Research	125,351	262,210
Administrative and general	2,818,712	2,386,498
Fund-raising	445,504	499,311
Total expenses	18,536,837	18,702,686
Change in unrestricted net assets	1,665,594	3,728,373
Change in temporarily restricted net assets (note 13):		
Contributions, net	305,865	189,551
Interest earned	21,033	39,683
Net assets released from restriction	(1,146,444)	(1,223,562)
Change in temporarily restricted net assets	(819,546)	(994,328)
Change in net assets	846,048	2,734,045
Net assets at beginning of year	89,227,561	86,493,516
Net assets at end of year	\$ 90,073,609	89,227,561

See accompanying notes to financial statements.

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Statements of Cash Flows

Years ended September 30, 2010 and 2009

	<u>2010</u>	<u>2009</u>
Cash flows from operating activities:		
Change in net assets	\$ 846,048	2,734,045
Adjustments to reconcile change in net assets to net cash provided by operating activities:		
Depreciation (note 8)	5,217,340	4,975,188
Net gain on disposal of property and equipment (note 8)	(43,541)	(17,851)
Decrease (increase) in assets:		
Receivables, net	210,142	(161,615)
Prepaid expenses	17,287	36,961
Increase (decrease) in liabilities:		
Accounts payable and accrued expenses	(119,287)	556,296
Advances	1,569,663	231,343
Net cash provided by operating activities	<u>7,697,652</u>	<u>8,354,367</u>
Cash flows from investing activities:		
Purchases of property and equipment	(6,783,961)	(8,870,175)
Proceeds on sale of property and equipment	43,541	23,461
Net cash used in investing activities	<u>(6,740,420)</u>	<u>(8,846,714)</u>
Net increase (decrease) in cash and cash equivalents	957,232	(492,347)
Cash and cash equivalents at beginning of year	<u>12,565,090</u>	<u>13,057,437</u>
Cash and cash equivalents at end of year	<u>\$ 13,522,322</u>	<u>12,565,090</u>

See accompanying notes to financial statements.

**CALIFORNIA ASSOCIATION
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(A Nonprofit California Public Benefit Corporation)

Notes to Financial Statements

September 30, 2010 and 2009

(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 pre-operating 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 2010 and 2009, UC provided operating support for Keck I operations of \$7,506,380 and \$7,604,176, respectively. For fiscal years 2010 and 2009, UC provided operating support for Keck II operations of \$4,774,687 and \$4,591,041, 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.

**CALIFORNIA ASSOCIATION
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(A Nonprofit California Public Benefit Corporation)

Notes to Financial Statements

September 30, 2010 and 2009

(2) Summary of Significant Accounting Policies

(a) Recent Accounting Pronouncements

On July 1, 2009, the Financial Accounting Standards Board (FASB) Accounting Standards Codification™ (the Codification) became the authoritative source of accounting principles to be applied to financial statements prepared in accordance with generally accepted accounting principles (GAAP). In accordance with the Codification, citations to accounting literature in this report are to the relevant Topic of the Codification or are presented in plain English.

(b) Financial Statement Presentation

The accompanying financial statements have been prepared on the accrual basis of accounting in accordance with GAAP.

CARA follows the requirements of 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, 2010 and 2009, CARA had no permanently restricted net assets.

(c) 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.

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(A Nonprofit California Public Benefit Corporation)

Notes to Financial Statements

September 30, 2010 and 2009

(d) 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.

(e) 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.

(f) 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.

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(A Nonprofit California Public Benefit Corporation)

Notes to Financial Statements

September 30, 2010 and 2009

(g) *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 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.

(h) *Impairment of Long-Lived Assets*

In accordance with FASB ASC Section 360-10-35, *Property, Plant, and Equipment – Overall – Subsequent Measurement*, long-lived assets, such as property and equipment, and purchased intangibles subject to amortization, 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.

(i) *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.

(j) *Subsequent Events*

CARA has evaluated subsequent events from the balance sheet date through February 15, 2011, the date at which the financial statements were available to be issued. There are no other matters to disclose.

(k) *Reclassifications*

Certain reclassifications have been made to the 2009 financial statements to conform to the 2010 presentation. Such reclassifications had no effect on previously reported change in net assets.

(3) National Aeronautics and Space Administration (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 \$3,084,155 and \$3,183,653 in 2010 and 2009, respectively.

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DBA W.M. KECK OBSERVATORY**
(A Nonprofit California Public Benefit Corporation)

Notes to Financial Statements

September 30, 2010 and 2009

(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. During 2010 and 2009, \$1,619,379 and \$1,601,463, respectively, was received under the subcontract.

Revenues under the cost-reimbursement subcontract were \$1,493,409 and \$2,125,504 in 2010 and 2009, respectively. Amounts due to CARA under the cost-reimbursement subcontract of \$318,870 and \$444,840 as of September 30, 2010 and 2009, 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 2010, the fixed price contract was revised to provide additional funding of \$1,228,416 for the NGAO project.

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 Wave Imager.

Revenues recognized under these contracts with AURA amounted to \$2,245,650 and \$2,616,458 in 2010 and 2009, respectively. As of September 30, 2010 and 2009, unspent receipts under the AURA contracts amounted to \$1,477,057 and \$1,232,607, 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 \$557,378 and \$685,843, respectively, was received in 2010 and 2009.

**CALIFORNIA ASSOCIATION
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(A Nonprofit California Public Benefit Corporation)

Notes to Financial Statements

September 30, 2010 and 2009

In 2009, NSF awarded CARA a three-year \$1,355,500 grant to improve the Keck II laser launch facility of which \$114,523 and \$0, respectively, was received in 2010 and 2009.

In 2010, NSF awarded CARA a four-year \$1,716,000 grant to develop the Keck II laser guide star adaptive optics facility of which \$2,000 and \$0, respectively, was received in 2010 and 2009.

Revenues recognized under these contracts with NSF amounted to \$694,542 and \$692,982 in 2010 and 2009, 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 of 4.3% applicable to the year in which the promise was received. Contributions receivable amounted to \$0 and \$50,000, respectively, at September 30, 2010 and 2009.

(8) Property and Equipment

A summary of property and equipment at September 30, 2010 and 2009 follows:

	2010	2009
Instrumentation:		
Property and equipment	\$ 54,823,973	54,789,211
Construction in progress	52,298,797	48,534,582
	107,122,770	103,323,793
Adaptive optics:		
Property and equipment	11,244,207	11,244,207
Construction in progress	8,869,271	6,660,630
	20,113,478	17,904,837
Infrastructure:		
Property and equipment	2,582,652	2,276,498
Construction in progress	2,180,109	1,835,604
	4,762,761	4,112,102
Vehicles and equipment	3,841,879	3,755,866
Less accumulated depreciation	(46,326,604)	(41,148,935)
	\$ 89,514,284	87,947,663

Depreciation expense amounted to \$5,217,340 in 2010 and \$4,975,188 in 2009.

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

Notes to Financial Statements

September 30, 2010 and 2009

(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.

(10) Related-Party Transactions

Caltech and UC provide various instrument and adaptive optics development services to CARA. During fiscal years 2010 and 2009, total expenditures for these services charged to CARA were \$1,321,917 and \$1,010,449, respectively, by Caltech, and \$869,669 and \$1,466,262, respectively, by UC.

(11) Commitments

CARA entered into various contractual agreements for observatory construction and development of instrumentation, laser guide star and adaptive optics systems, operations, and interferometry systems. A summary of commitments at September 30, 2010 follows:

Operations	\$	1,723,360
Instrumentation		1,264,426
Laser guide star and adaptive optics systems		685,464
Interferometry		<u>528,268</u>
Total	\$	<u><u>4,201,518</u></u>

(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 2010 and 2009, CARA received contributions of \$98,974 and \$87,066, respectively, which were board designated for the Director's Fund. At September 30, 2010 and 2009, \$167,872 and \$68,898, respectively, was available in the fund.

(13) Temporarily Restricted Net Assets

In 2004, the Foundation made a contribution of \$2,000,000 to CARA for the purpose of upgrading and optimizing the existing adaptive optics system. In 2010 and 2009, \$0 and \$3,031, respectively, of temporarily restricted net assets were released from restriction in satisfaction of equipment acquisition restrictions. At September 30, 2010 and 2009, \$0 was available for the purpose of upgrading and optimizing the existing adaptive optics system.

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

Notes to Financial Statements

September 30, 2010 and 2009

In December 2005, CARA received a restricted contribution pledge of \$4,899,875 for Keck I instrumentation development of MOSFIRE. In 2010 and 2009, \$1,005,698 and \$1,067,789, respectively, of temporarily restricted net assets were released from restriction in satisfaction of equipment acquisition restrictions. At September 30, 2010 and 2009, after discounting the pledge and receipt of interest earned and pledge payments, \$152,123 and \$1,136,786, 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, 2010 and 2009, \$14,376 and \$7,635, respectively, was available in this program.

CARA received various restricted contributions for instrument development and advancement activities totaling \$299,123 and \$202,742, respectively, in 2010 and 2009. In 2010 and 2009, \$140,746 and \$152,742, respectively, of temporarily restricted net assets were released from restriction in satisfaction of equipment acquisition and advancement activity restrictions. At September 30, 2010 and 2009, \$208,377 and \$50,000, respectively, was available for these activities.

(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 \$789,976 and \$787,054 for fiscal years 2010 and 2009, respectively.