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Form 990  Department of the Treasury Internal Revenue Service	Return of Organization Exempt From Income Tax Under section 501(c), 527, or 4947(a)(1) of the Internal Revenue Code (except black lung benefit trust or private foundation)	OMB No 1545-0047 2012 Open to Public Inspection
	▶ The organization may have to use a copy of this return to satisfy state reporting requirements	

A For the 2012 calendar year, or tax year beginning 10-01-2012 , 2012, and ending 09-30-2013

B Check if applicable ☐ Address change ☐ Name change ☐ Initial return ☐ Terminated ☐ Amended return ☐ Application pending	C Name of organization CALIFORNIA ASSOCIATION FOR RESEARCH IN ASTRONOMY		D Employer identification number 95-3972799	
	Doing Business As W M Keck Observatory			
	Number and street (or P O box if mail is not delivered to street address) 65-1120 Mamalahoa Hwy	Room/suite	E Telephone number (808) 885-7887	
	City or town, state or country, and ZIP + 4 Kamuela, HI 96743			
			G Gross receipts \$ 22,555,325	
F Name and address of principal officer W M Keck Observatory 65-1120 Mamalahoa Hwy Kamuela, HI 96743		H(a) Is this a group return for affiliates? ☐ Yes ☒ No H(b) Are all affiliates included? ☐ Yes ☐ No If "No," attach a list (see instructions) H(c) Group exemption number ▶		
I Tax-exempt status ☒ 501(c)(3) ☐ 501(c) () ◀ (Insert no) ☐ 4947(a)(1) or ☐ 527				
J Website: ▶ www.keckobservatory.org				
K Form of organization ☒ Corporation ☐ Trust ☐ Association ☐ Other ▶		L Year of formation 1985	M State of legal domicile CA	

Part I Summary

Activities & Governance	1 Briefly describe the organization's mission or most significant activities To advance the frontiers of astronomy and share our discoveries with the world CARA was formed by The Regents of the University of California and California Institute of Technology to operate two 10-meter optical/infrared telescopes on the summit of Mauna Kea on the island of Hawai'i		
	2 Check this box ☒ if the organization discontinued its operations or disposed of more than 25% of its net assets		
	3 Number of voting members of the governing body (Part VI, line 1a)	3	6
	4 Number of independent voting members of the governing body (Part VI, line 1b)	4	6
5 Total number of individuals employed in calendar year 2012 (Part V, line 2a)	5	148	
6 Total number of volunteers (estimate if necessary)	6	20	
7a Total unrelated business revenue from Part VIII, column (C), line 12	7a	0	
b Net unrelated business taxable income from Form 990-T, line 34	7b	0	
Revenue		Prior Year	Current Year
	8 Contributions and grants (Part VIII, line 1h)	19,290,337	17,752,864
	9 Program service revenue (Part VIII, line 2g)	5,872,529	4,476,009
	10 Investment income (Part VIII, column (A), lines 3, 4, and 7d)	417,431	291,189
	11 Other revenue (Part VIII, column (A), lines 5, 6d, 8c, 9c, 10c, and 11e)	0	-158,878
	12 Total revenue—add lines 8 through 11 (must equal Part VIII, column (A), line 12)	25,580,297	22,361,184
Expenses	13 Grants and similar amounts paid (Part IX, column (A), lines 1–3)	1,996,497	2,428,470
	14 Benefits paid to or for members (Part IX, column (A), line 4)	0	0
	15 Salaries, other compensation, employee benefits (Part IX, column (A), lines 5–10)	11,207,867	12,339,194
	16a Professional fundraising fees (Part IX, column (A), line 11e)	0	0
	b Total fundraising expenses (Part IX, column (D), line 25) ☒ 499,998		
	17 Other expenses (Part IX, column (A), lines 11a–11d, 11f–24e)	7,347,185	8,137,177
	18 Total expenses Add lines 13–17 (must equal Part IX, column (A), line 25)	20,551,549	22,904,841
	19 Revenue less expenses Subtract line 18 from line 12	5,028,748	-543,657
	Net Assets or Fund Balances		Beginning of Current Year
20 Total assets (Part X, line 16)		74,285,782	72,734,062
21 Total liabilities (Part X, line 26)		15,215,710	16,880,317
22 Net assets or fund balances Subtract line 21 from line 20		59,070,072	55,853,745

Part II Signature Block

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete. Declaration of preparer (other than officer) is based on all information of which preparer has any knowledge.

Sign Here	Signature of officer			2014-08-15	
	Nathan Brostrom CARA CFO			Date	
Type or print name and title					
Paid Preparer Use Only	Print/Type preparer's name		Preparer's signature		Date
	Check ☐ if self-employed		PTIN		
	Firm's name		Firm's EIN		
Firm's address		Phone no			

May the IRS discuss this return with the preparer shown above? (see instructions) ☐ Yes ☐ No

Part III

Statement of Program Service Accomplishments

Check if Schedule O contains a response to any question in this Part III

1

Briefly describe the organization's mission

To advance the frontiers of astronomy and share our discoveries with the world The two 10-meter telescopes of the Keck Observatory are the world's largest optical and infrared telescopes

2

Did the organization undertake any significant program services during the year which were not listed on the prior Form 990 or 990-EZ?

Yes

☒ No

If "Yes," describe these new services on Schedule O

3

Did the organization cease conducting, or make significant changes in how it conducts, any program services?

Yes

☒ No

If "Yes," describe these changes on Schedule O

4

Describe the organization's program service accomplishments for each of its three largest program services, as measured by expenses Section 501(c)(3) and 501(c)(4) organizations are required to report the amount of grants and allocations to others, the total expenses, and revenue, if any, for each program service reported

4a

(Code) (Expenses \$ 19,053,471 including grants of \$ 2,428,470) (Revenue \$ 4,449,862)

Higher Education CARA was formed by The Regents of the University of California, a state institution of higher education and California Institute of Technology, a Section 501(c)3 institution of higher education, to operate two 10-meter optical/infrared telescopes on the summit of Mauna Kea on the island of Hawai'i The twin telescopes are dedicated to astronomical research 365 days/nights per year and feature a suite of advanced instrumentation including imagers, multi-object spectrographs, high-resolution spectrographs, and integral-field spectroscopy Keck has developed and operates a sophisticated natural and laser guide star adaptive optics system Time on the Keck telescopes is one of the most sought of resources in astronomical and planetary science research Observing time on the Keck telescopes is divided each year among its founding partner institutions California Institute of Technology and the University of California, as well as NASA, the University of Hawai'i and Yale University The broader observing community has access to the telescopes through partnerships with the National Science Foundation and NASA CARA's activities include entering into grants and contracts to carry out astronomical research and instrumentation development Keck's legacy of exploration includes the discovery and characterization of exoplanets, the study of how planets, stars and galaxies form, the nature of black holes, and the chemical composition and evolution of the Universe

4b

(Code) (Expenses \$ 113,896 including grants of \$ 0) (Revenue \$ 20,749)

Public Information Each year, Keck Observatory sponsors dozens of educational programs for Hawai'i Island families, educators, and students to foster a greater appreciation of science and its many contributions to society On a global level, the Observatory sponsors Keck Nation, a growing on-line community whose members are the first to receive science news and discoveries made by the world's leading astrophysicists

4c

(Code) (Expenses \$ 5,398 including grants of \$ 0) (Revenue \$ 5,398)

Research Keck Observatory's activities include submitting grant proposals to carry out specific research projects

4d

Other program services (Describe in Schedule O)

(Expenses \$ 0 including grants of \$ 0) (Revenue \$ 0)

4e

Total program service expenses

19,172,765

Part IV Checklist of Required Schedules

	Yes	No
1 Is the organization described in section 501(c)(3) or 4947(a)(1) (other than a private foundation)? If "Yes," complete Schedule A 	1 Yes	
2 Is the organization required to complete Schedule B, Schedule of Contributors (see instructions)? 	2 Yes	
3 Did the organization engage in direct or indirect political campaign activities on behalf of or in opposition to candidates for public office? If "Yes," complete Schedule C, Part I	3	No
4 Section 501(c)(3) organizations. Did the organization engage in lobbying activities, or have a section 501(h) election in effect during the tax year? If "Yes," complete Schedule C, Part II	4	No
5 Is the organization a section 501(c)(4), 501(c)(5), or 501(c)(6) organization that receives membership dues, assessments, or similar amounts as defined in Revenue Procedure 98-19? If "Yes," complete Schedule C, Part III	5	No
6 Did the organization maintain any donor advised funds or any similar funds or accounts for which donors have the right to provide advice on the distribution or investment of amounts in such funds or accounts? If "Yes," complete Schedule D, Part I	6	No
7 Did the organization receive or hold a conservation easement, including easements to preserve open space, the environment, historic land areas, or historic structures? If "Yes," complete Schedule D, Part II	7	No
8 Did the organization maintain collections of works of art, historical treasures, or other similar assets? If "Yes," complete Schedule D, Part III	8	No
9 Did the organization report an amount in Part X, line 21 for escrow or custodial account liability, serve as a custodian for amounts not listed in Part X, or provide credit counseling, debt management, credit repair, or debt negotiation services? If "Yes," complete Schedule D, Part IV	9	No
10 Did the organization, directly or through a related organization, hold assets in temporarily restricted endowments, permanent endowments, or quasi-endowments? If "Yes," complete Schedule D, Part V	10	No
11 If the organization's answer to any of the following questions is "Yes," then complete Schedule D, Parts VI, VII, VIII, IX, or X as applicable		
a Did the organization report an amount for land, buildings, and equipment in Part X, line 10? If "Yes," complete Schedule D, Part VI. 	11a Yes	
b Did the organization report an amount for investments—other securities in Part X, line 12 that is 5% or more of its total assets reported in Part X, line 16? If "Yes," complete Schedule D, Part VII	11b	No
c Did the organization report an amount for investments—program related in Part X, line 13 that is 5% or more of its total assets reported in Part X, line 16? If "Yes," complete Schedule D, Part VIII	11c	No
d Did the organization report an amount for other assets in Part X, line 15 that is 5% or more of its total assets reported in Part X, line 16? If "Yes," complete Schedule D, Part IX	11d	No
e Did the organization report an amount for other liabilities in Part X, line 25? If "Yes," complete Schedule D, Part X	11e	No
f Did the organization's separate or consolidated financial statements for the tax year include a footnote that addresses the organization's liability for uncertain tax positions under FIN 48 (ASC 740)? If "Yes," complete Schedule D, Part X. 	11f Yes	
12a Did the organization obtain separate, independent audited financial statements for the tax year? If "Yes," complete Schedule D, Parts XI and XII. 	12a Yes	
b Was the organization included in consolidated, independent audited financial statements for the tax year? If "Yes," and if the organization answered "No" to line 12a, then completing Schedule D, Parts XI and XII is optional. 	12b	No
13 Is the organization a school described in section 170(b)(1)(A)(ii)? If "Yes," complete Schedule E	13	No
14a Did the organization maintain an office, employees, or agents outside of the United States?	14a	No
b Did the organization have aggregate revenues or expenses of more than \$10,000 from grantmaking, fundraising, business, investment, and program service activities outside the United States, or aggregate foreign investments valued at \$100,000 or more? If "Yes," complete Schedule F, Parts I and IV. 	14b Yes	
15 Did the organization report on Part IX, column (A), line 3, more than \$5,000 of grants or assistance to any organization or entity located outside the United States? If "Yes," complete Schedule F, Parts II and IV. 	15 Yes	
16 Did the organization report on Part IX, column (A), line 3, more than \$5,000 of aggregate grants or assistance to individuals located outside the United States? If "Yes," complete Schedule F, Parts III and IV	16	No
17 Did the organization report a total of more than \$15,000 of expenses for professional fundraising services on Part IX, column (A), lines 6 and 11e? If "Yes," complete Schedule G, Part I (see instructions)	17	No
18 Did the organization report more than \$15,000 total of fundraising event gross income and contributions on Part VIII, lines 1c and 8a? If "Yes," complete Schedule G, Part II. 	18 Yes	
19 Did the organization report more than \$15,000 of gross income from gaming activities on Part VIII, line 9a? If "Yes," complete Schedule G, Part III	19	No
20a Did the organization operate one or more hospital facilities? If "Yes," complete Schedule H	20a	No
b If "Yes" to line 20a, did the organization attach a copy of its audited financial statements to this return?	20b	

Part IV

Checklist of Required Schedules (continued)

21	Did the organization report more than \$5,000 of grants and other assistance to any government or organization in the United States on Part IX, column (A), line 1? <i>If "Yes," complete Schedule I, Parts I and II</i>	21	Yes	
22	Did the organization report more than \$5,000 of grants and other assistance to individuals in the United States on Part IX, column (A), line 2? <i>If "Yes," complete Schedule I, Parts I and III</i>	22		No
23	Did the organization answer "Yes" to Part VII, Section A, line 3, 4, or 5 about compensation of the organization's current and former officers, directors, trustees, key employees, and highest compensated employees? <i>If "Yes," complete Schedule J</i>	23	Yes	
24a	Did the organization have a tax-exempt bond issue with an outstanding principal amount of more than \$100,000 as of the last day of the year, that was issued after December 31, 2002? <i>If "Yes," answer lines 24b through 24d and complete Schedule K. If "No," go to line 25</i>	24a		No
b	Did the organization invest any proceeds of tax-exempt bonds beyond a temporary period exception?	24b		
c	Did the organization maintain an escrow account other than a refunding escrow at any time during the year to defease any tax-exempt bonds?	24c		
d	Did the organization act as an "on behalf of" issuer for bonds outstanding at any time during the year?	24d		
25a	Section 501(c)(3) and 501(c)(4) organizations. Did the organization engage in an excess benefit transaction with a disqualified person during the year? <i>If "Yes," complete Schedule L, Part I</i>	25a		No
b	Is the organization aware that it engaged in an excess benefit transaction with a disqualified person in a prior year, and that the transaction has not been reported on any of the organization's prior Forms 990 or 990-EZ? <i>If "Yes," complete Schedule L, Part I</i>	25b		No
26	Was a loan to or by a current or former officer, director, trustee, key employee, highest compensated employee, or disqualified person outstanding as of the end of the organization's tax year? <i>If "Yes," complete Schedule L, Part II</i>	26		No
27	Did the organization provide a grant or other assistance to an officer, director, trustee, key employee, substantial contributor or employee thereof, a grant selection committee member, or to a 35% controlled entity or family member of any of these persons? <i>If "Yes," complete Schedule L, Part III</i>	27		No
28	Was the organization a party to a business transaction with one of the following parties (see Schedule L, Part IV instructions for applicable filing thresholds, conditions, and exceptions)			
a	A current or former officer, director, trustee, or key employee? <i>If "Yes," complete Schedule L, Part IV</i>	28a		No
b	A family member of a current or former officer, director, trustee, or key employee? <i>If "Yes," complete Schedule L, Part IV</i>	28b		No
c	An entity of which a current or former officer, director, trustee, or key employee (or a family member thereof) was an officer, director, trustee, or direct or indirect owner? <i>If "Yes," complete Schedule L, Part IV</i>	28c		No
29	Did the organization receive more than \$25,000 in non-cash contributions? <i>If "Yes," complete Schedule M</i> . . .	29	Yes	
30	Did the organization receive contributions of art, historical treasures, or other similar assets, or qualified conservation contributions? <i>If "Yes," complete Schedule M</i>	30		No
31	Did the organization liquidate, terminate, or dissolve and cease operations? <i>If "Yes," complete Schedule N, Part I</i>	31		No
32	Did the organization sell, exchange, dispose of, or transfer more than 25% of its net assets? <i>If "Yes," complete Schedule N, Part II</i>	32		No
33	Did the organization own 100% of an entity disregarded as separate from the organization under Regulations sections 301.7701-2 and 301.7701-3? <i>If "Yes," complete Schedule R, Part I</i>	33		No
34	Was the organization related to any tax-exempt or taxable entity? <i>If "Yes," complete Schedule R, Part II, III, or IV, and Part V, line 1</i>	34		No
35a	Did the organization have a controlled entity within the meaning of section 512(b)(13)?	35a		No
b	If "Yes" to line 35a, did the organization receive any payment from or engage in any transaction with a controlled entity within the meaning of section 512(b)(13)? <i>If "Yes," complete Schedule R, Part V, line 2</i>	35b		
36	Section 501(c)(3) organizations. Did the organization make any transfers to an exempt non-charitable related organization? <i>If "Yes," complete Schedule R, Part V, line 2</i>	36		No
37	Did the organization conduct more than 5% of its activities through an entity that is not a related organization and that is treated as a partnership for federal income tax purposes? <i>If "Yes," complete Schedule R, Part VI</i>	37		No
38	Did the organization complete Schedule O and provide explanations in Schedule O for Part VI, lines 11b and 19? Note. All Form 990 filers are required to complete Schedule O	38	Yes	

Part V

Statements Regarding Other IRS Filings and Tax Compliance

Check if Schedule O contains a response to any question in this Part V

		Yes	No
1a	Enter the number reported in Box 3 of Form 1096. Enter -0- if not applicable.	36	
1b	Enter the number of Forms W-2G included in line 1a. Enter -0- if not applicable.	0	
c Did the organization comply with backup withholding rules for reportable payments to vendors and reportable gaming (gambling) winnings to prize winners?		1c	Yes
2a	Enter the number of employees reported on Form W-3, Transmittal of Wage and Tax Statements, filed for the calendar year ending with or within the year covered by this return.	2a	148
b If at least one is reported on line 2a, did the organization file all required federal employment tax returns? Note. If the sum of lines 1a and 2a is greater than 250, you may be required to e-file (see instructions).		2b	Yes
3a Did the organization have unrelated business gross income of \$1,000 or more during the year?		3a	No
b If "Yes," has it filed a Form 990-T for this year? If "No," provide an explanation in Schedule O.		3b	
4a At any time during the calendar year, did the organization have an interest in, or a signature or other authority over, a financial account in a foreign country (such as a bank account, securities account, or other financial account)?		4a	No
b If "Yes," enter the name of the foreign country: _____ See instructions for filing requirements for Form TD F 90-22.1, Report of Foreign Bank and Financial Accounts.			
5a Was the organization a party to a prohibited tax shelter transaction at any time during the tax year?		5a	No
b Did any taxable party notify the organization that it was or is a party to a prohibited tax shelter transaction?		5b	No
c If "Yes," to line 5a or 5b, did the organization file Form 8886-T?		5c	
6a Does the organization have annual gross receipts that are normally greater than \$100,000, and did the organization solicit any contributions that were not tax deductible as charitable contributions?		6a	No
b If "Yes," did the organization include with every solicitation an express statement that such contributions or gifts were not tax deductible?		6b	
7 Organizations that may receive deductible contributions under section 170(c).			
a Did the organization receive a payment in excess of \$75 made partly as a contribution and partly for goods and services provided to the payor?		7a	Yes
b If "Yes," did the organization notify the donor of the value of the goods or services provided?		7b	Yes
c Did the organization sell, exchange, or otherwise dispose of tangible personal property for which it was required to file Form 8282?		7c	No
d If "Yes," indicate the number of Forms 8282 filed during the year.		7d	
e Did the organization receive any funds, directly or indirectly, to pay premiums on a personal benefit contract?		7e	No
f Did the organization, during the year, pay premiums, directly or indirectly, on a personal benefit contract?		7f	No
g If the organization received a contribution of qualified intellectual property, did the organization file Form 8899 as required?		7g	
h If the organization received a contribution of cars, boats, airplanes, or other vehicles, did the organization file a Form 1098-C?		7h	
8 Sponsoring organizations maintaining donor advised funds and section 509(a)(3) supporting organizations. Did the supporting organization, or a donor advised fund maintained by a sponsoring organization, have excess business holdings at any time during the year?		8	
9 Sponsoring organizations maintaining donor advised funds.			
a Did the organization make any taxable distributions under section 4966?		9a	
b Did the organization make a distribution to a donor, donor advisor, or related person?		9b	
10 Section 501(c)(7) organizations. Enter			
a Initiation fees and capital contributions included on Part VIII, line 12.		10a	
b Gross receipts, included on Form 990, Part VIII, line 12, for public use of club facilities.		10b	
11 Section 501(c)(12) organizations. Enter			
a Gross income from members or shareholders.		11a	
b Gross income from other sources (Do not net amounts due or paid to other sources against amounts due or received from them).		11b	
12a Section 4947(a)(1) non-exempt charitable trusts. Is the organization filing Form 990 in lieu of Form 1041?		12a	
b If "Yes," enter the amount of tax-exempt interest received or accrued during the year.		12b	
13 Section 501(c)(29) qualified nonprofit health insurance issuers.			
a Is the organization licensed to issue qualified health plans in more than one state? Note. See the instructions for additional information the organization must report on Schedule O.		13a	
b Enter the amount of reserves the organization is required to maintain by the states in which the organization is licensed to issue qualified health plans.		13b	
c Enter the amount of reserves on hand.		13c	
14a Did the organization receive any payments for indoor tanning services during the tax year?		14a	No
b If "Yes," has it filed a Form 720 to report these payments? If "No," provide an explanation in Schedule O.		14b	

Part VI

Governance, Management, and Disclosure

For each "Yes" response to lines 2 through 7b below, and for a "No" response to lines 8a, 8b, or 10b below, describe the circumstances, processes, or changes in Schedule O. See instructions.

Check if Schedule O contains a response to any question in this Part VI

Section A. Governing Body and Management

		Yes	No
1a	Enter the number of voting members of the governing body at the end of the tax year		
	If there are material differences in voting rights among members of the governing body, or if the governing body delegated broad authority to an executive committee or similar committee, explain in Schedule O		
b	Enter the number of voting members included in line 1a, above, who are independent		
2	Did any officer, director, trustee, or key employee have a family relationship or a business relationship with any other officer, director, trustee, or key employee?	Yes	
3	Did the organization delegate control over management duties customarily performed by or under the direct supervision of officers, directors or trustees, or key employees to a management company or other person?		No
4	Did the organization make any significant changes to its governing documents since the prior Form 990 was filed?		No
5	Did the organization become aware during the year of a significant diversion of the organization's assets?		No
6	Did the organization have members or stockholders?		No
7a	Did the organization have members, stockholders, or other persons who had the power to elect or appoint one or more members of the governing body?	Yes	
b	Are any governance decisions of the organization reserved to (or subject to approval by) members, stockholders, or persons other than the governing body?		No
8	Did the organization contemporaneously document the meetings held or written actions undertaken during the year by the following		
a	The governing body?	Yes	
b	Each committee with authority to act on behalf of the governing body?	Yes	
9	Is there any officer, director, trustee, or key employee listed in Part VII, Section A, who cannot be reached at the organization's mailing address? If "Yes," provide the names and addresses in Schedule O		No

Section B. Policies (This Section B requests information about policies not required by the Internal Revenue Code.)

		Yes	No
10a	Did the organization have local chapters, branches, or affiliates?		No
b	If "Yes," did the organization have written policies and procedures governing the activities of such chapters, affiliates, and branches to ensure their operations are consistent with the organization's exempt purposes?		
11a	Has the organization provided a complete copy of this Form 990 to all members of its governing body before filing the form?	Yes	
b	Describe in Schedule O the process, if any, used by the organization to review this Form 990		
12a	Did the organization have a written conflict of interest policy? If "No," go to line 13	Yes	
b	Were officers, directors, or trustees, and key employees required to disclose annually interests that could give rise to conflicts?	Yes	
c	Did the organization regularly and consistently monitor and enforce compliance with the policy? If "Yes," describe in Schedule O how this was done	Yes	
13	Did the organization have a written whistleblower policy?		No
14	Did the organization have a written document retention and destruction policy?		No
15	Did the process for determining compensation of the following persons include a review and approval by independent persons, comparability data, and contemporaneous substantiation of the deliberation and decision?		
a	The organization's CEO, Executive Director, or top management official	Yes	
b	Other officers or key employees of the organization	Yes	
	If "Yes" to line 15a or 15b, describe the process in Schedule O (see instructions)		
16a	Did the organization invest in, contribute assets to, or participate in a joint venture or similar arrangement with a taxable entity during the year?		No
b	If "Yes," did the organization follow a written policy or procedure requiring the organization to evaluate its participation in joint venture arrangements under applicable federal tax law, and take steps to safeguard the organization's exempt status with respect to such arrangements?		

Section C. Disclosure

17	List the States with which a copy of this Form 990 is required to be filed	CA , HI
18	Section 6104 requires an organization to make its Form 1023 (or 1024 if applicable), 990, and 990-T (501(c)(3)s only) available for public inspection. Indicate how you made these available. Check all that apply. ☐ Own website ☐ Another's website ☒ Upon request ☐ Other (explain in Schedule O)	
19	Describe in Schedule O whether (and if so, how), the organization made its governing documents, conflict of interest policy, and financial statements available to the public during the tax year	
20	State the name, physical address, and telephone number of the person who possesses the books and records of the organization	California Association for Research in Astronomy 65-1120 Mamalahoa Hwy Kamuela, HI (808) 885-7887

Part VII

Compensation of Officers, Directors, Trustees, Key Employees, Highest Compensated Employees, and Independent Contractors

Check if Schedule O contains a response to any question in this Part VII

Section A. Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees

- 1a Complete this table for all persons required to be listed Report compensation for the calendar year ending with or within the organization's tax year
- List all of the organization's **current** officers, directors, trustees (whether individuals or organizations), regardless of amount of compensation Enter -0- in columns (D), (E), and (F) if no compensation was paid

List all of the organization's **current** key employees, if any See instructions for definition of "key employee "

List the organization's five **current** highest compensated employees (other than an officer, director, trustee or key employee) who received reportable compensation (Box 5 of Form W-2 and/or Box 7 of Form 1099-MISC) of more than \$100,000 from the organization and any related organizations

List all of the organization's **former** officers, key employees, or highest compensated employees who received more than \$100,000 of reportable compensation from the organization and any related organizations

List all of the organization's **former directors or trustees** that received, in the capacity as a former director or trustee of the organization, more than \$10,000 of reportable compensation from the organization and any related organizations

List persons in the following order individual trustees or directors, institutional trustees, officers, key employees, highest compensated employees, and former such persons

Check this box if neither the organization nor any related organization compensated any current officer, director, or trustee

(A) Name and Title	(B) Average hours per week (list any hours for related organizations below dotted line)	(C) Position (do not check more than one box, unless person is both an officer and a director/trustee)						(D) Reportable compensation from the organization (W- 2/1099-MISC)	(E) Reportable compensation from related organizations (W- 2/1099-MISC)	(F) Estimated amount of other compensation from the organization and related organizations
		Individual trustee or director	Institutional Trustee	Officer	Key employee	Highest compensated employee	Former			
(1) Dr Ed Stolper Chairman	2 0	X		X				0	0	0
(2) Dr George Blumenthal Vice-Chairman	2 0	X		X				0	0	0
(3) Dr B Thomas Soifer Board Member	2 0	X						0	0	0
(4) Dr Aimee Dorr Board Member	2 0	X						0	0	0
(5) Dr Shmnivas Kulkarni Board Member	2 0	X						0	0	0
(6) Dr Sandra Faber Board Member	2 0	X						0	0	0
(7) Mr Nathan Brostrom Chief Financial Officer	1 0			X				0	0	0
(8) Ms Elaine Stamman Secretary	2 0			X				0	0	0
(9) Dr Taft Armandroff Observatory Director	50 0			X				254,019	0	48,518
(10) Mr Hilton Lewis Observatory Deputy Director	50 0			X				217,350	0	45,523
(11) Dr Peter Wizinowich Optics Engineering Manager	50 0				X			176,868	0	47,178
(12) Mr Richard Matsuda Operations and Infrastructure Manager	50 0				X			176,635	0	38,474
(13) Mr Kevin McCann Software Engineering Manager	50 0					X		162,877	0	42,345
(14) Mr Kyle Kinoshita Technical Services Manager	50 0					X		153,056	0	34,056
(15) Ms Marganta Scheffel Observatory CFO	50 0					X		152,721	0	39,332
(16) Ms Deborah Stednick HR and Office Administration Manager	50 0					X		146,710	0	33,690
(17) Mr Sean Adkins Instrument Program Manager	50 0					X		140,454	0	37,918

Part VII

1b	Sub-Total	▼			
c	Total from continuation sheets to Part VII, Section A	▼			
d	Total (add lines 1b and 1c)	▼	1,580,690	0	367,034

2 Total number of individuals (including but not limited to those listed in Item 1) who received more than \$100,000 of reportable compensation from the organization. 37

		Yes	No
3	Did the organization list any former officer, director or trustee, key employee, or highest compensated employee on line 1a? <i>If "Yes," complete Schedule J for such individual</i>	3	No
4	For any individual listed on line 1a, is the sum of reportable compensation and other compensation from the organization and related organizations greater than \$150,000? <i>If "Yes," complete Schedule J for such individual</i>	4	Yes
5	Did any person listed on line 1a receive or accrue compensation from any unrelated organization or individual for services rendered to the organization? <i>If "Yes," complete Schedule J for such person</i>	5	No

Section B. Independent Contractors

1 Complete this table for your five highest compensated independent contractors that received more than \$100,000 of compensation from the organization. Report compensation for the calendar year ending with or within the organization's tax year.

(A) Name and business address	(B) Description of services	(C) Compensation
MAUNA KEA OBSERVATORY SUPPORT 177 Makaala Street Hilo HI96720	MAUNA KEA SUMMIT FACILITY AND ROAD MAINTENANCE	379,782
WINLIGHT OPTICS 135 rue Benjamin FranklinZAC St MartinPertuisFR84120	KCWI Collimator Mirror fabrication	227,018
TOPTICA PHOTONICS AG LOCHHAMER SCHLAG 19GRAEFELFINGMUGM82166	INSTRUMENT FABRICATION	107,074

2 Total number of independent contractors (including but not limited to those listed above) who received more than \$100,000 of compensation from the organization ►3

Part VIII

Statement of Revenue

Check if Schedule O contains a response to any question in this Part VIII

			(A)	(B)	(C)	(D)		
			Total revenue	Related or exempt function revenue	Unrelated business revenue	Revenue excluded from tax under sections 512, 513, or 514		
Contributions, Gifts, Grants and Other Similar Amounts	1a	Federated campaigns . . .	1a	0				
	b	Membership dues	1b	0				
	c	Fundraising events	1c	415,019				
	d	Related organizations	1d	0				
	e	Government grants (contributions)	1e	2,371,623				
	f	All other contributions, gifts, grants, and similar amounts not included above	1f	14,966,222				
	g	Noncash contributions included in lines 1a-1f \$		23,415				
	h	Total. Add lines 1a-1f		17,752,864				
Program Service Revenue	2a	NASA COOPERATIVE AGREEMENT	Business Code 541712	4,146,855	4,146,855	0	0	
	b	JET PROPULSION LABORATORY SUBCONTRACT	541712	137,024	137,024	0	0	
	c	VISITING SCIENTIST QUARTERS	541712	126,291	126,291	0	0	
	d	KECK SCIENCE MEETING CONFERENCE FEES	541712	28,710	28,710	0	0	
	e	KECK LOGO MERCHANDISE	900099	20,309	0	0	20,309	
	f	All other program service revenue		16,820	16,380	0	440	
	g	Total. Add lines 2a-2f		4,476,009				
	Other Revenue	3	Investment income (including dividends, interest, and other similar amounts)		251,861	0	0	251,861
4		Income from investment of tax-exempt bond proceeds . . .		0	0	0	0	
5		Royalties		0	0	0	0	
6a		Gross rents	(i) Real	(ii) Personal				
		b	Less rental expenses					
		c	Rental income or (loss)	0	0			
		d	Net rental income or (loss)					
7a		Gross amount from sales of assets other than inventory	(i) Securities	(ii) Other				
		b	Less cost or other basis and sales expenses	2,929	39,400			
		c	Gain or (loss)	3,001	0			
		d	Net gain or (loss)	-72	39,400			
8a		Gross income from fundraising events (not including \$ 415,019 of contributions reported on line 1c) See Part IV, line 18	a					
		b	Less direct expenses	b	32,262			
		c	Net income or (loss) from fundraising events . . .		191,140			
		d	Net gain or (loss)		-158,878	0	0	-158,878
9a		Gross income from gaming activities See Part IV, line 19	a					
		b	Less direct expenses	b				
		c	Net income or (loss) from gaming activities . . .					
		d	Net gain or (loss)					
10a		Gross sales of inventory, less returns and allowances	a					
	b	Less cost of goods sold	b					
	c	Net income or (loss) from sales of inventory . . .						
	d	Net gain or (loss)						
Miscellaneous Revenue		Business Code						
11a								
b								
c								
d	All other revenue							
e	Total. Add lines 11a-11d		0					
12	Total revenue. See Instructions		22,361,184	4,455,260	0	153,060		

Part IX Statement of Functional Expenses

Section 501(c)(3) and 501(c)(4) organizations must complete all columns All other organizations must complete column (A)

Check if Schedule O contains a response to any question in this Part IX

Do not include amounts reported on lines 6b, 7b, 8b, 9b, and 10b of Part VIII.		(A) Total expenses	(B) Program service expenses	(C) Management and general expenses	(D) Fundraising expenses
1	Grants and other assistance to governments and organizations in the United States See Part IV, line 21	2,407,410	2,407,410		
2	Grants and other assistance to individuals in the United States See Part IV, line 22	0	0		
3	Grants and other assistance to governments, organizations, and individuals outside the United States See Part IV, lines 15 and 16	21,060	21,060		
4	Benefits paid to or for members	0	0		
5	Compensation of current officers, directors, trustees, and key employees	1,019,108	494,430	479,382	45,296
6	Compensation not included above, to disqualified persons (as defined under section 4958(f)(1)) and persons described in section 4958(c)(3)(B)	0	0	0	0
7	Other salaries and wages	8,600,583	6,366,662	1,975,805	258,116
8	Pension plan accruals and contributions (include section 401(k) and 403(b) employer contributions)	774,205	550,139	206,675	17,391
9	Other employee benefits	1,222,179	737,944	445,336	38,899
10	Payroll taxes	723,119	520,917	186,466	15,736
11	Fees for services (non-employees)				
a	Management	0	0	0	0
b	Legal	39,258	0	39,258	0
c	Accounting	112,963	0	112,963	
d	Lobbying	0	0	0	0
e	Professional fundraising services See Part IV, line 17	0			0
f	Investment management fees	0	0	0	0
g	Other (If line 11g amount exceeds 10% of line 25, column (A) amount, list line 11g expenses on Schedule O)	360,605	214,159	105,612	40,834
12	Advertising and promotion	0	0	0	0
13	Office expenses	239,546	65,802	160,437	13,307
14	Information technology	404,643	58,385	343,525	2,733
15	Royalties	0	0	0	0
16	Occupancy	1,518,881	1,173,480	345,401	0
17	Travel	361,098	194,951	150,260	15,887
18	Payments of travel or entertainment expenses for any federal, state, or local public officials	0	0	0	0
19	Conferences, conventions, and meetings	208,952	419	159,946	48,587
20	Interest	0	0	0	0
21	Payments to affiliates	0	0	0	0
22	Depreciation, depletion, and amortization	6,340,021	6,214,950	125,071	0
23	Insurance	43,135	713	42,422	0
24	Other expenses Itemize expenses not covered above (List miscellaneous expenses in line 24e If line 24e amount exceeds 10% of line 25, column (A) amount, list line 24e expenses on Schedule O)				
a	EQUIPMENT	773,602	750,198	23,381	23
b	CAPITALIZED GRANTS	-2,397,164	-2,397,164	0	0
c	EQUIPMENT RENTAL AND MAINTENANCE	540,784	421,000	116,595	3,189
d	INDIRECT COST RECOVERY	-409,147	1,377,310	-1,786,457	0
e	All other expenses	0	0	0	0
25	Total functional expenses. Add lines 1 through 24e	22,904,841	19,172,765	3,232,078	499,998
26	Joint costs. Complete this line only if the organization reported in column (B) joint costs from a combined educational campaign and fundraising solicitation Check here ☐ if following SOP 98-2 (ASC 958-720)				

Part X

Balance Sheet

Check if Schedule O contains a response to any question in this Part X

☒

				(A)		(B)
				Beginning of year		End of year
Assets	1	Cash—non-interest-bearing		23,773	1	2,571
	2	Savings and temporary cash investments		15,163,930	2	17,103,838
	3	Pledges and grants receivable, net		524,465	3	39,082
	4	Accounts receivable, net		164,804	4	630,216
	5	Loans and other receivables from current and former officers, directors, trustees, key employees, and highest compensated employees Complete Part II of Schedule L		0	5	0
	6	Loans and other receivables from other disqualified persons (as defined under section 4958(f)(1)), persons described in section 4958(c)(3)(B), and contributing employers and sponsoring organizations of section 501(c)(9) voluntary employees' beneficiary organizations (see instructions) Complete Part II of Schedule L		0	6	0
	7	Notes and loans receivable, net		0	7	0
	8	Inventories for sale or use		0	8	0
	9	Prepaid expenses and deferred charges		44,540	9	51,105
	10a	Land, buildings, and equipment cost or other basis Complete Part VI of Schedule D	10a117,428,983			
	b	Less accumulated depreciation	10b62,584,170	58,364,270	10c	54,844,813
	11	Investments—publicly traded securities			11	62,437
	12	Investments—other securities See Part IV, line 11			12	0
	13	Investments—program-related See Part IV, line 11			13	0
	14	Intangible assets			14	0
	15	Other assets See Part IV, line 11			15	0
	16	Total assets. Add lines 1 through 15 (must equal line 34)		74,285,782	16	72,734,062
Liabilities	17	Accounts payable and accrued expenses		1,889,634	17	2,396,013
	18	Grants payable		408,442	18	635,237
	19	Deferred revenue		12,917,634	19	13,849,067
	20	Tax-exempt bond liabilities		0	20	0
	21	Escrow or custodial account liability Complete Part IV of Schedule D		0	21	0
	22	Loans and other payables to current and former officers, directors, trustees, key employees, highest compensated employees, and disqualified persons Complete Part II of Schedule L		0	22	0
	23	Secured mortgages and notes payable to unrelated third parties		0	23	0
	24	Unsecured notes and loans payable to unrelated third parties		0	24	0
	25	Other liabilities (including federal income tax, payables to related third parties, and other liabilities not included on lines 17-24) Complete Part X of Schedule D		0	25	0
	26	Total liabilities. Add lines 17 through 25		15,215,710	26	16,880,317
Net Assets or Fund Balances	Organizations that follow SFAS 117 (ASC 958), check here ☒ and complete lines 27 through 29, and lines 33 and 34.					
	27	Unrestricted net assets		58,685,730	27	55,201,759
	28	Temporarily restricted net assets		384,342	28	651,986
	29	Permanently restricted net assets		0	29	0
	Organizations that do not follow SFAS 117 (ASC 958), check here ☐ and complete lines 30 through 34.					
	30	Capital stock or trust principal, or current funds			30	
	31	Paid-in or capital surplus, or land, building or equipment fund			31	
	32	Retained earnings, endowment, accumulated income, or other funds			32	
	33	Total net assets or fund balances		59,070,072	33	55,853,745
	34	Total liabilities and net assets/fund balances		74,285,782	34	72,734,062

Part XI Reconciliation of Net Assets

Check if Schedule O contains a response to any question in this Part XI

1	Total revenue (must equal Part VIII, column (A), line 12)	1	22,361,184
2	Total expenses (must equal Part IX, column (A), line 25)	2	22,904,841
3	Revenue less expenses Subtract line 2 from line 1	3	-543,657
4	Net assets or fund balances at beginning of year (must equal Part X, line 33, column (A))	4	59,070,072
5	Net unrealized gains (losses) on investments	5	4,676
6	Donated services and use of facilities	6	23,979
7	Investment expenses	7	0
8	Prior period adjustments	8	0
9	Other changes in net assets or fund balances (explain in Schedule O)	9	-2,701,325
10	Net assets or fund balances at end of year Combine lines 3 through 9 (must equal Part X, line 33, column (B))	10	55,853,745

Part XII Financial Statements and Reporting

Check if Schedule O contains a response to any question in this Part XII

		Yes	No
1	Accounting method used to prepare the Form 990 ☐ Cash ☒ Accrual ☐ Other _____ If the organization changed its method of accounting from a prior year or checked "Other," explain in Schedule O		
2a	Were the organization's financial statements compiled or reviewed by an independent accountant? If "Yes," check a box below to indicate whether the financial statements for the year were compiled or reviewed on a separate basis, consolidated basis, or both ☐ Separate basis ☐ Consolidated basis ☐ Both consolidated and separate basis		No
2b	Were the organization's financial statements audited by an independent accountant? If "Yes," check a box below to indicate whether the financial statements for the year were audited on a separate basis, consolidated basis, or both ☒ Separate basis ☐ Consolidated basis ☐ Both consolidated and separate basis	Yes	
2c	If "Yes," to line 2a or 2b, does the organization have a committee that assumes responsibility for oversight of the audit, review, or compilation of its financial statements and selection of an independent accountant? If the organization changed either its oversight process or selection process during the tax year, explain in Schedule O	Yes	
3a	As a result of a federal award, was the organization required to undergo an audit or audits as set forth in the Single Audit Act and OMB Circular A-133?	Yes	
3b	If "Yes," did the organization undergo the required audit or audits? If the organization did not undergo the required audit or audits, explain why in Schedule O and describe any steps taken to undergo such audits	Yes	

SCHEDULE A
(Form 990 or 990EZ)

Department of the Treasury
Internal Revenue Service

Public Charity Status and Public Support

Complete if the organization is a section 501(c)(3) organization or a section 4947(a)(1) nonexempt charitable trust.

► Attach to Form 990 or Form 990-EZ. ► See separate instructions.

OMB No 1545-0047

2012

Open to Public Inspection

Name of the organization CALIFORNIA ASSOCIATION FOR RESEARCH IN ASTRONOMY	Employer identification number 95-3972799
--	--

Part I

Reason for Public Charity Status (All organizations must complete this part.) See instructions.

The organization is not a private foundation because it is (For lines 1 through 11, check only one box)

- 1

☐

A church, convention of churches, or association of churches described in **section 170(b)(1)(A)(i).**
- 2

☐

A school described in **section 170(b)(1)(A)(ii).** (Attach Schedule E)
- 3

☐

A hospital or a cooperative hospital service organization described in **section 170(b)(1)(A)(iii).**
- 4

☐

A medical research organization operated in conjunction with a hospital described in **section 170(b)(1)(A)(iii).** Enter the hospital's name, city, and state _____
- 5

☐

An organization operated for the benefit of a college or university owned or operated by a governmental unit described in **section 170(b)(1)(A)(iv).** (Complete Part II)
- 6

☐

A federal, state, or local government or governmental unit described in **section 170(b)(1)(A)(v).**
- 7

☒

An organization that normally receives a substantial part of its support from a governmental unit or from the general public described in **section 170(b)(1)(A)(vi).** (Complete Part II)
- 8

☐

A community trust described in **section 170(b)(1)(A)(vi)** (Complete Part II)
- 9

☐

An organization that normally receives (1) more than 33¹/₃% of its support from contributions, membership fees, and gross receipts from activities related to its exempt functions—subject to certain exceptions, and (2) no more than 33¹/₃% of its support from gross investment income and unrelated business taxable income (less section 511 tax) from businesses acquired by the organization after June 30, 1975 See **section 509(a)(2).** (Complete Part III)
- 10

☐

An organization organized and operated exclusively to test for public safety See **section 509(a)(4).**
- 11

☐

An organization organized and operated exclusively for the benefit of, to perform the functions of, or to carry out the purposes of one or more publicly supported organizations described in section 509(a)(1) or section 509(a)(2) See **section 509(a)(3).** Check the box that describes the type of supporting organization and complete lines 11e through 11h

a

☐

Type I

b

☐

Type II

c

☐

Type III - Functionally integrated

d

☐

Type III - Non-functionally integrated
- e

☐

By checking this box, I certify that the organization is not controlled directly or indirectly by one or more disqualified persons other than foundation managers and other than one or more publicly supported organizations described in section 509(a)(1) or section 509(a)(2)
- f

☐

If the organization received a written determination from the IRS that it is a Type I, Type II, or Type III supporting organization, check this box
- g

☐

Since August 17, 2006, has the organization accepted any gift or contribution from any of the following persons?

(i)

A person who directly or indirectly controls, either alone or together with persons described in (ii) and (iii) below, the governing body of the supported organization?

(ii)

A family member of a person described in (i) above?

(iii)

A 35% controlled entity of a person described in (i) or (ii) above?
- h

☐

Provide the following information about the supported organization(s)

	Yes	No
11g(i)		
11g(ii)		
11g(iii)		

(i) Name of supported organization	(ii) EIN	(iii) Type of organization (described on lines 1 - 9 above or IRC section (see instructions))	(iv) Is the organization in col (i) listed in your governing document?		(v) Did you notify the organization in col (i) of your support?		(vi) Is the organization in col (i) organized in the U S ?		(vii) Amount of monetary support
			Yes	No	Yes	No	Yes	No	
Total									

Part II

Support Schedule for Organizations Described in Sections 170(b)(1)(A)(iv) and 170(b)(1)(A)(vi)
(Complete only if you checked the box on line 5, 7, or 8 of Part I or if the organization failed to qualify under Part III. If the organization fails to qualify under the tests listed below, please complete Part III.)

Section A. Public Support						
Calendar year (or fiscal year beginning in) ▶	(a) 2008	(b) 2009	(c) 2010	(d) 2011	(e) 2012	(f) Total
1 Gifts, grants, contributions, and membership fees received (Do not include any "unusual grants.")	15,775,071	14,112,296	15,632,382	16,102,256	15,381,241	77,003,246
2 Tax revenues levied for the organization's benefit and either paid to or expended on its behalf	0	0	0	0	0	0
3 The value of services or facilities furnished by a governmental unit to the organization without charge	0	0	0	0	0	0
4 Total. Add lines 1 through 3	15,775,071	14,112,296	15,632,382	16,102,256	15,381,241	77,003,246
5 The portion of total contributions by each person (other than a governmental unit or publicly supported organization) included on line 1 that exceeds 2% of the amount shown on line 11, column (f)						0
6 Public support. Subtract line 5 from line 4						77,003,246

Section B. Total Support						
Calendar year (or fiscal year beginning in) ▶	(a) 2008	(b) 2009	(c) 2010	(d) 2011	(e) 2012	(f) Total
7 Amounts from line 4	15,775,071	14,112,296	15,632,382	16,102,256	15,381,241	77,003,246
8 Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources	333,422	317,600	294,238	393,000	251,861	1,590,121
9 Net income from unrelated business activities, whether or not the business is regularly carried on	0	0	0	0	-158,878	-158,878
10 Other income. Do not include gain or loss from the sale of capital assets (Explain in Part IV.)	172,928	148,928	193,239	223,137	186,732	924,964
11 Total support (Add lines 7 through 10)						79,359,453
12 Gross receipts from related activities, etc. (see instructions)					12	26,258,185
13 First five years. If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a 501(c)(3) organization, check this box and stop here						

Section C. Computation of Public Support Percentage		
14 Public support percentage for 2012 (line 6, column (f) divided by line 11, column (f))	14	97.031 %
15 Public support percentage for 2011 Schedule A, Part II, line 14	15	96.473 %
16a 33 1/3% support test—2012. If the organization did not check the box on line 13, and line 14 is 33 1/3% or more, check this box and stop here. The organization qualifies as a publicly supported organization		
b 33 1/3% support test—2011. If the organization did not check a box on line 13 or 16a, and line 15 is 33 1/3% or more, check this box and stop here. The organization qualifies as a publicly supported organization		
17a 10%-facts-and-circumstances test—2012. If the organization did not check a box on line 13, 16a, or 16b, and line 14 is 10% or more, and if the organization meets the "facts-and-circumstances" test, check this box and stop here. Explain in Part IV how the organization meets the "facts-and-circumstances" test. The organization qualifies as a publicly supported organization		
b 10%-facts-and-circumstances test—2011. If the organization did not check a box on line 13, 16a, 16b, or 17a, and line 15 is 10% or more, and if the organization meets the "facts-and-circumstances" test, check this box and stop here. Explain in Part IV how the organization meets the "facts-and-circumstances" test. The organization qualifies as a publicly supported organization		
18 Private foundation. If the organization did not check a box on line 13, 16a, 16b, 17a, or 17b, check this box and see instructions		

Part IIISupport Schedule for Organizations Described in Section 509(a)(2)

(Complete only if you checked the box on line 9 of Part I or if the organization failed to qualify under Part II. If the organization fails to qualify under the tests listed below, please complete Part II.)

Section A. Public Support						
Calendar year (or fiscal year beginning in) ▶	(a) 2008	(b) 2009	(c) 2010	(d) 2011	(e) 2012	(f) Total
1 Gifts, grants, contributions, and membership fees received (Do not include any "unusual grants.")						
2 Gross receipts from admissions, merchandise sold or services performed, or facilities furnished in any activity that is related to the organization's tax-exempt purpose						
3 Gross receipts from activities that are not an unrelated trade or business under section 513						
4 Tax revenues levied for the organization's benefit and either paid to or expended on its behalf						
5 The value of services or facilities furnished by a governmental unit to the organization without charge						
6 Total. Add lines 1 through 5						
7a Amounts included on lines 1, 2, and 3 received from disqualified persons						
b Amounts included on lines 2 and 3 received from other than disqualified persons that exceed the greater of \$5,000 or 1% of the amount on line 13 for the year						
c Add lines 7a and 7b						
8 Public support (Subtract line 7c from line 6.)						

Section B. Total Support						
Calendar year (or fiscal year beginning in) ▶	(a) 2008	(b) 2009	(c) 2010	(d) 2011	(e) 2012	(f) Total
9 Amounts from line 6						
10a Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources						
b Unrelated business taxable income (less section 511 taxes) from businesses acquired after June 30, 1975						
c Add lines 10a and 10b						
11 Net income from unrelated business activities not included in line 10b, whether or not the business is regularly carried on						
12 Other income. Do not include gain or loss from the sale of capital assets (Explain in Part IV.)						
13 Total support. (Add lines 9, 10c, 11, and 12.)						
14 First five years. If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a 501(c)(3) organization, check this box and stop here ▶						

Section C. Computation of Public Support Percentage		
15 Public support percentage for 2012 (line 8, column (f) divided by line 13, column (f))	15	
16 Public support percentage from 2011 Schedule A, Part III, line 15	16	

Section D. Computation of Investment Income Percentage		
17 Investment income percentage for 2012 (line 10c, column (f) divided by line 13, column (f))	17	
18 Investment income percentage from 2011 Schedule A, Part III, line 17	18	
19a 33 1/3% support tests—2012. If the organization did not check the box on line 14, and line 15 is more than 33 1/3%, and line 17 is not more than 33 1/3%, check this box and stop here. The organization qualifies as a publicly supported organization ▶		
b 33 1/3% support tests—2011. If the organization did not check a box on line 14 or line 19a, and line 16 is more than 33 1/3% and line 18 is not more than 33 1/3%, check this box and stop here. The organization qualifies as a publicly supported organization ▶		
20 Private foundation. If the organization did not check a box on line 14, 19a, or 19b, check this box and see instructions ▶		

Part IV **Supplemental Information.** Complete this part to provide the explanations required by Part II, line 10; Part II, line 17a or 17b; and Part III, line 12. Also complete this part for any additional information. (See instructions).

Facts And Circumstances Test

Explanation
Part II, line 10 Observing Scientists' fees to offset their lodging costs, Keck logo sales and conference fees from the Keck Science meetings during the 20th Anniversary Celebration Keck Week in March 2013 All activities to advance scientific astronomical discovery and knowledge

SCHEDULE D
(Form 990)

Department of the Treasury
Internal Revenue Service

Supplemental Financial Statements

OMB No 1545-0047

2012

Open to Public Inspection

Name of the organization
CALIFORNIA ASSOCIATION FOR RESEARCH IN ASTRONOMY

Employer identification number
95-3972799

Part I

Organizations Maintaining Donor Advised Funds or Other Similar Funds or Accounts. Complete if the organization answered "Yes" to Form 990, Part IV, line 6.

	(a) Donor advised funds	(b) Funds and other accounts
1	Total number at end of year	
2	Aggregate contributions to (during year)	
3	Aggregate grants from (during year)	
4	Aggregate value at end of year	
5	Did the organization inform all donors and donor advisors in writing that the assets held in donor advised funds are the organization's property, subject to the organization's exclusive legal control? ☐ Yes ☐ No	
6	Did the organization inform all grantees, donors, and donor advisors in writing that grant funds can be used only for charitable purposes and not for the benefit of the donor or donor advisor, or for any other purpose conferring impermissible private benefit? ☐ Yes ☐ No	

Part II

Conservation Easements. Complete if the organization answered "Yes" to Form 990, Part IV, line 7.

1

Purpose(s) of conservation easements held by the organization (check all that apply)

☐ Preservation of land for public use (e g , recreation or education) ☐ Preservation of an historically important land area

☐ Protection of natural habitat ☐ Preservation of a certified historic structure

☐ Preservation of open space

2

Complete lines 2a through 2d if the organization held a qualified conservation contribution in the form of a conservation easement on the last day of the tax year

	Held at the End of the Year
a	Total number of conservation easements
b	Total acreage restricted by conservation easements
c	Number of conservation easements on a certified historic structure included in (a)
d	Number of conservation easements included in (c) acquired after 8/17/06, and not on a historic structure listed in the National Register

3

Number of conservation easements modified, transferred, released, extinguished, or terminated by the organization during the tax year ▶_____

4

Number of states where property subject to conservation easement is located ▶_____

5

Does the organization have a written policy regarding the periodic monitoring, inspection, handling of violations, and enforcement of the conservation easements it holds?

☐ Yes ☐ No

6

Staff and volunteer hours devoted to monitoring, inspecting, and enforcing conservation easements during the year ▶_____

7

Amount of expenses incurred in monitoring, inspecting, and enforcing conservation easements during the year ▶\$ _____

8

Does each conservation easement reported on line 2(d) above satisfy the requirements of section 170(h)(4)(B)(i) and section 170(h)(4)(B)(ii)?

☐ Yes ☐ No

9

In Part XIII, describe how the organization reports conservation easements in its revenue and expense statement, and balance sheet, and include, if applicable, the text of the footnote to the organization's financial statements that describes the organization's accounting for conservation easements

Part III

Organizations Maintaining Collections of Art, Historical Treasures, or Other Similar Assets. Complete if the organization answered "Yes" to Form 990, Part IV, line 8.

1a

If the organization elected, as permitted under SFAS 116 (ASC 958), not to report in its revenue statement and balance sheet works of art, historical treasures, or other similar assets held for public exhibition, education, or research in furtherance of public service, provide, in Part XIII, the text of the footnote to its financial statements that describes these items

b

If the organization elected, as permitted under SFAS 116 (ASC 958), to report in its revenue statement and balance sheet works of art, historical treasures, or other similar assets held for public exhibition, education, or research in furtherance of public service, provide the following amounts relating to these items

(i)

Revenues included in Form 990, Part VIII, line 1

▶\$ _____

(ii)

Assets included in Form 990, Part X

▶\$ _____

2

If the organization received or held works of art, historical treasures, or other similar assets for financial gain, provide the following amounts required to be reported under SFAS 116 (ASC 958) relating to these items

a

Revenues included in Form 990, Part VIII, line 1

▶\$ _____

b

Assets included in Form 990, Part X

▶\$ _____

For Paperwork Reduction Act Notice, see the Instructions for Form 990.

Cat No 52283D

Schedule D (Form 990) 2012

Part III

Organizations Maintaining Collections of Art, Historical Treasures, or Other Similar Assets (continued)

3

Using the organization's acquisition, accession, and other records, check any of the following that are a significant use of its collection items (check all that apply)

a

☐ Public exhibition

d

☐ Loan or exchange programs

b

☐ Scholarly research

e

☐ Other

c

☐ Preservation for future generations

4

Provide a description of the organization's collections and explain how they further the organization's exempt purpose in Part XIII

5

During the year, did the organization solicit or receive donations of art, historical treasures or other similar assets to be sold to raise funds rather than to be maintained as part of the organization's collection?

☐ Yes

☐ No

Part IV

Escrow and Custodial Arrangements. Complete if the organization answered "Yes" to Form 990, Part IV, line 9, or reported an amount on Form 990, Part X, line 21.

1a

Is the organization an agent, trustee, custodian or other intermediary for contributions or other assets not included on Form 990, Part X?

☐ Yes

☐ No

b

If "Yes," explain the arrangement in Part XIII and complete the following table

c

Beginning balance

d

Additions during the year

e

Distributions during the year

f

Ending balance

	Amount
1c	
1d	
1e	
1f	

2a

Did the organization include an amount on Form 990, Part X, line 21?

☐ Yes

☐ No

b

If "Yes," explain the arrangement in Part XIII. Check here if the explanation has been provided in Part XIII

☐

Part V

Endowment Funds. Complete if the organization answered "Yes" to Form 990, Part IV, line 10.

	(a)Current year	(b)Prior year	b (c)Two years back	(d)Three years back	(e)Four years back
1a	Beginning of year balance				
b	Contributions				
c	Net investment earnings, gains, and losses				
d	Grants or scholarships				
e	Other expenditures for facilities and programs				
f	Administrative expenses				
g	End of year balance				

2

Provide the estimated percentage of the current year end balance (line 1g, column (a)) held as

a

Board designated or quasi-endowment

b

Permanent endowment

c

Temporarily restricted endowment

The percentages in lines 2a, 2b, and 2c should equal 100%

3a

Are there endowment funds not in the possession of the organization that are held and administered for the organization by

(i) unrelated organizations

3a(i)

Yes

No

(ii) related organizations

3a(ii)

Yes

No

b

If "Yes" to 3a(ii), are the related organizations listed as required on Schedule R?

3b

Yes

No

4

Describe in Part XIII the intended uses of the organization's endowment funds

Part VI

Land, Buildings, and Equipment. See Form 990, Part X, line 10.

Description of property	(a) Cost or other basis (investment)	(b) Cost or other basis (other)	(c) Accumulated depreciation	(d) Book value
1a Land	0	0		0
b Buildings	0	0	0	0
c Leasehold improvements	0	0	0	0
d Equipment	0	117,428,983	62,584,170	54,844,813
e Other	0	0	0	0
Total. Add lines 1a through 1e (Column (d) must equal Form 990, Part X, column (B), line 10(c).)				54,844,813

Schedule D (Form 990) 2012

Part XI Reconciliation of Revenue per Audited Financial Statements With Revenue per Return

1	Total revenue, gains, and other support per audited financial statements	1	22,247,552
2	Amounts included on line 1 but not on Form 990, Part VIII, line 12		
a	Net unrealized gains on investments	2a	4,676
b	Donated services and use of facilities	2b	23,979
c	Recoveries of prior year grants	2c	0
d	Other (Describe in Part XIII)	2d	299,185
e	Add lines 2a through 2d	2e	327,840
3	Subtract line 2e from line 1	3	21,919,712
4	Amounts included on Form 990, Part VIII, line 12, but not on line 1		
a	Investment expenses not included on Form 990, Part VIII, line 7b	4a	0
b	Other (Describe in Part XIII)	4b	441,472
c	Add lines 4a and 4b	4c	441,472
5	Total revenue Add lines 3 and 4c. (This must equal Form 990, Part I, line 12)	5	22,361,184

Part XII Reconciliation of Expenses per Audited Financial Statements With Expenses per Return

1	Total expenses and losses per audited financial statements	1	23,030,198
2	Amounts included on line 1 but not on Form 990, Part IX, line 25		
a	Donated services and use of facilities	2a	0
b	Prior year adjustments	2b	0
c	Other losses	2c	0
d	Other (Describe in Part XIII)	2d	164,685
e	Add lines 2a through 2d	2e	164,685
3	Subtract line 2e from line 1	3	22,865,513
4	Amounts included on Form 990, Part IX, line 25, but not on line 1:		
a	Investment expenses not included on Form 990, Part VIII, line 7b	4a	0
b	Other (Describe in Part XIII)	4b	39,328
c	Add lines 4a and 4b	4c	39,328
5	Total expenses Add lines 3 and 4c. (This must equal Form 990, Part I, line 18)	5	22,904,841

Part XIII Supplemental Information

Complete this part to provide the descriptions required for Part II, lines 3, 5, and 9, Part III, lines 1a and 4, Part IV, lines 1b and 2b, Part V, line 4, Part X, line 2, Part XI, lines 2d and 4b, and Part XII, lines 2d and 4b. Also complete this part to provide any additional information.

Identifier	Return Reference	Explanation
SchD_P06_S00_L01a	Schedule D, Part VI, Line 1a	The land in Waimea is owned by California Institute of Technology and is not listed as a CARA financial asset
SchD_P06_S00_L01b	Schedule D, Part VI, Line 1b	The headquarters building in Waimea and the observatories on the summit of Mauna Kea are owned by California Institute of Technology and are not listed as CARA financial assets
SchD_P06_S00_L01d	Schedule D, Part VI, Line 1d	The telescopes on the summit of Mauna Kea are owned by California Institute of Technology and are not listed as CARA financial assets. CARA owns all focal-plane instruments, lasers and adaptive optics plus various other equipment not affixed to the facilities, and computers & vehicles
SchD_P10_S00_L02	Schedule D, Part X, Line 2	CARA has received a determination from taxing authorities that it is an organization exempt from taxation under Section 501c3 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 fifty percent 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 if such positions were probable of being sustained.
SchD_P11_S00_L02d	Schedule D, Part XI, Line 2d	Satisfaction of temporary equipment restrictions
SchD_P11_S00_L04b	Schedule D, Part XI, Line 4b	Temporarily restricted contributions and the net proceeds from the fleet vehicle sales, the loss on the sale of donated stock and the shifting of fundraising event expenses to revenue for purposes of 990 reporting per IRS requirements
SchD_P12_S00_L02d	Schedule D, Part XII, Line 2d	Fund raising event expenses moved to revenue for purposes of meeting IRS form 990 reporting requirements
SchD_P12_S00_L04b	Schedule D, Part XII, Line 4b	The net proceeds from the fleet vehicle sales and the loss on the sale of donated stock

SCHEDULE F
(Form 990)

Department of the Treasury
Internal Revenue Service

Statement of Activities Outside the United States

► Complete if the organization answered "Yes" to Form 990,
Part IV, line 14b, 15, or 16.
► Attach to Form 990. ► See separate instructions.

OMB No 1545-0047

2012

Open to Public Inspection

Name of the organization
CALIFORNIA ASSOCIATION FOR RESEARCH IN ASTRONOMY

Employer identification number
95-3972799

Part I

General Information on Activities Outside the United States. Complete if the organization answered "Yes" to Form 990, Part IV, line 14b.

1

For grantmakers. Does the organization maintain records to substantiate the amount of the grants or assistance, the grantees' eligibility for the grants or assistance, and the selection criteria used to award the grants or assistance?

☒ Yes

☐ No

2

For grantmakers. Describe in Part V the organization's procedures for monitoring the use of grant funds outside the United States.

3

Activites per Region (The following Part I, line 3 table can be duplicated if additional space is needed)

(a) Region	(b) Number of offices in the region	(c) Number of employees, agents, and independent contractors in region	(d) Activities conducted in region (by type) (e g , fundraising, program services, investments, grants to recipients located in the region)	(e) If activity listed in (d) is a program service, describe specific type of service(s) in region	(f) Total expenditures for and investments in region
Europe (including Iceland and Greenland)	0	0	Program Services	TOPTICA Laser, WINLIGHT Optics, Contracted with these firms to fabricate and develop telescope instrumentation	334,092
East Asia and the Pacific	0	0	Program Services	Engineering consulting for instrument and technology development	66,418
East Asia and the Pacific	0	0	Speaking at Seminars or Conferences	Australia National University partner technical visit and Swinburne Keck Science Workshop, Subaru Telescope Users meeting in Japan	6,498
Europe (including Iceland and Greenland)	0	0	Speaking at Seminars or Conferences	Scientific Detector Workshop 2013, SciOps 2013 - Conference, Segment repair vendor visits	10,831
3a Sub-total					
b Total from continuation sheets to Part I					
c Totals (add lines 3a and 3b)	0	0			417,839

Part II **Grants and Other Assistance to Organizations or Entities Outside the United States.** Complete if the organization answered "Yes" to Form 990, Part IV, line 15, for any recipient who received more than \$5,000. Part II can be duplicated if additional space is needed.

1 (a) Name of organization	(b) IRS code section and EIN (if applicable)	(c) Region	(d) Purpose of grant	(e) Amount of cash grant	(f) Manner of cash disbursement	(g) Amount of non-cash assistance	(h) Description of non-cash assistance	(i) Method of valuation (book, FMV, appraisal, other)
		Europe (including Iceland and Greenland)	Sub-award for work performed under NSF grant AST-1207631 for the PSF Reconstruction project	21,060	WIRE TRANSFER	0		

2 Enter total number of recipient organizations listed above that are recognized as charities by the foreign country, recognized as tax-exempt by the IRS, or for which the grantee or counsel has provided a section 501(c)(3) equivalency letter  _____ **0**

3 Enter total number of other organizations or entities  _____ **1**

Part III

(h) Method of valuation
(book, FMV, appraisal, other)

Part IV Foreign Forms

- 1

Was the organization a U S transferor of property to a foreign corporation during the tax year? *If "Yes," the organization may be required to file Form 926, Return by a U.S. Transferor of Property to a Foreign Corporation (see Instructions for Form 926)*

☐ Yes

☒ No
- 2

Did the organization have an interest in a foreign trust during the tax year? *If "Yes," the organization may be required to file Form 3520, Annual Return to Report Transactions with Foreign Trusts and Receipt of Certain Foreign Gifts, and/or Form 3520-A, Annual Information Return of Foreign Trust With a U.S. Owner (see Instructions for Forms 3520 and 3520-A)*

☐ Yes

☒ No
- 3

Did the organization have an ownership interest in a foreign corporation during the tax year? *If "Yes," the organization may be required to file Form 5471, Information Return of U.S. Persons with Respect to Certain Foreign Corporations. (see Instructions for Form 5471)*

☐ Yes

☒ No
- 4

Was the organization a direct or indirect shareholder of a passive foreign investment company or a qualified electing fund during the tax year? *If "Yes," the organization may be required to file Form 8621, Return by a Shareholder of a Passive Foreign Investment Company or Qualified Electing Fund. (see Instructions for Form 8621)*

☐ Yes

☒ No
- 5

Did the organization have an ownership interest in a foreign partnership during the tax year? *If "Yes," the organization may be required to file Form 8865, Return of U.S. Persons with Respect to Certain Foreign Partnerships. (see Instructions for Form 8865)*

☐ Yes

☒ No
- 6

Did the organization have any operations in or related to any boycotting countries during the tax year? *If "Yes," the organization may be required to file Form 5713, International Boycott Report (see Instructions for Form 5713).*

☐ Yes

☒ No

Supplemental Information
Complete this part to provide the information required by Part I, line 2 (monitoring of funds); Part I, line 3, column (f) (accounting method; amounts of investments vs. expenditures per region); Part II, line 1 (accounting method); Part III (accounting method); and Part III, column (c) (estimated number of recipients), as applicable. Also complete this part to provide any additional information (see instructions).

Schedule F (Form 990) 2012

Part II Fundraising Events. Complete if the organization answered "Yes" to Form 990, Part IV, line 18, or reported more than \$15,000 of fundraising event contributions and gross income on Form 990-EZ, lines 1 and 6b. List events with gross receipts greater than \$5,000.

		(a) Event #1	(b) Event #2	(c) Other events	(d) Total events
		KECK WEEK (event type)	(event type)	(total number)	(add col (a) through col (c))
Revenue	1	Gross receipts	447,281		447,281
	2	Less Contributions . . .	415,019		415,019
	3	Gross income (line 1 minus line 2)	32,262		32,262
Direct Expenses	4	Cash prizes	0		0
	5	Noncash prizes . . .	0		0
	6	Rent/facility costs . . .	0		0
	7	Food and beverages .	41,773	0	41,773
	8	Entertainment	5,183	0	5,183
	9	Other direct expenses .	144,184		144,184
	10	Direct expense summary Add lines 4 through 9 in column (d) ▶			(191,140)
	11	Net income summary Combine line 3, column (d), and line 10 ▶			-158,878

Part III Gaming. Complete if the organization answered "Yes" to Form 990, Part IV, line 19, or reported more than \$15,000 on Form 990-EZ, line 6a.

		(a) Bingo	(b) Pull tabs/Instant bingo/progressive bingo	(c) Other gaming	(d) Total gaming (add col (a) through col (c))
Direct Expenses	1	Gross revenue			
	2	Cash prizes			
	3	Non-cash prizes			
	4	Rent/facility costs			
	5	Other direct expenses . . .			
	6	Volunteer labor	☐ Yes ☐ No	☐ Yes ☐ No	
	7	Direct expense summary Add lines 2 through 5 in column (d) ▶			
	8	Net gaming income summary Combine lines 1 and 7 in column (d) ▶			

9 Enter the state(s) in which the organization operates gaming activities _____

a Is the organization licensed to operate gaming activities in each of these states? ☐ Yes ☐ No

b If "No," explain _____

10a Were any of the organization's gaming licenses revoked, suspended or terminated during the tax year? ☐ Yes ☐ No

b If "Yes," explain _____

Does the organization operate gaming activities with nonmembers? ☒ **Yes** ☐ **No**

12 Is the organization a grantor, beneficiary or trustee of a trust or a member of a partnership or other entity formed to administer charitable gaming? ☐ **Yes** ☐ **No**

13 Indicate the percentage of gaming activity operated in

a The organization's facility	13a	
b An outside facility	13b	

14 Enter the name and address of the person who prepares the organization's gaming/special events books and records

Name 

Address 

15a Does the organization have a contract with a third party from whom the organization receives gaming revenue? ☐ **Yes** ☐ **No**

b If "Yes," enter the amount of gaming revenue received by the organization  \$ _____ and the amount of gaming revenue retained by the third party  \$ _____

c If "Yes," enter name and address of the third party

Name 

Address 

16 Gaming manager information

Name 

Gaming manager compensation  \$

Description of services provided 

☐ Director/officer ☐ Employee ☐ Independent contractor

17 Mandatory distributions

a Is the organization required under state law to make charitable distributions from the gaming proceeds to retain the state gaming license? ☐ **Yes** ☐ **No**

b Enter the amount of distributions required under state law distributed to other exempt organizations or spent in the organization's own exempt activities during the tax year  \$ _____

Part IV

Supplemental Information. Complete this part to provide the explanations required by Part I, line 2b, columns (iii) and (v), and Part III, lines 9, 9b, 10b, 15b, 15c, 16, and 17b, as applicable. Also complete this part to provide any additional information (see instructions).

Identifier	Return Reference	Explanation
SchG_P02_S00_L11	Schedule G, Part II, Line 11	Form 990 instructions require reporting fund raising events net of the revenue from the contributions received for the event. This causes the event to show a negative net income on the Statement of Revenue. When the contributions, as disclosed in line 1c, are combined with fund raising event net income, the result is a positive net income.

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Schedule I
(Form 990)

Department of the Treasury
Internal Revenue Service

Grants and Other Assistance to Organizations,
Governments and Individuals in the United States

Complete if the organization answered "Yes," to Form 990, Part IV, line 21 or 22.
▶ Attach to Form 990

OMB No 1545-0047

2012

Open to Public
Inspection

Name of the organization
CALIFORNIA ASSOCIATION FOR RESEARCH IN ASTRONOMY

Employer identification number
95-3972799

Part I General Information on Grants and Assistance

1

Does the organization maintain records to substantiate the amount of the grants or assistance, the grantees' eligibility for the grants or assistance, and the selection criteria used to award the grants or assistance?

Yes

No

2

Describe in Part IV the organization's procedures for monitoring the use of grant funds in the United States

Part II Grants and Other Assistance to Governments and Organizations in the United States. Complete if the organization answered "Yes" to Form 990, Part IV, line 21, for any recipient that received more than \$5,000. Part II can be duplicated if additional space is needed.

(a) Name and address of organization or government	(b) EIN	(c) IRC Code section if applicable	(d) Amount of cash grant	(e) Amount of non-cash assistance	(f) Method of valuation (book, FMV, appraisal, other)	(g) Description of non-cash assistance	(h) Purpose of grant or assistance
(1) CALIFORNIA INSTITUTE OF TECHNOLOGY 1200 E CALIFORNIA BLVD PASADENA, CA 946075200	95-1643307	501(c)(3)	315,917		0 CASH		Sub-award under the federally funded NSF AST-1007058 prime award for the design and development of astronomical technology for the Adaptive Optics Tip Tilt Sensor for Keck I
(2) CALIFORNIA INSTITUTE OF TECHNOLOGY 1200 E CALIFORNIA BLVD PASADENA, CA 91125	95-1643307	501(c)(3)	1,723,216		0 CASH		Sub-award under the federally funded AURA TSIP sub-award N09426C-A for the development of the astronomical instrument the Keck Cosmic Web Imager
(3) CALIFORNIA INSTITUTE OF TECHNOLOGY 1200 E CALIFORNIA BLVD PASADENA, CA 91125	95-1643307	501(c)(3)	15,761		0 CASH		Award for the development of the astronomical instrument MOSFIRE and the rotator repair
(4) UNIVERSITY OF CALIFORNIA LOS ANGELES 10920 WILSHIRE BLVD LOS ANGELES, CA 900246503	95-6006143	501(c)(3)	39,940		0 CASH		Various sub-awards for the design and development of the astronomical instrument MOSFIRE, the design of the astronomical instrument the Keck Cosmic Web Imager, and for an instrument study
(5) UNIVERSITY OF CALIFORNIA SANTA CRUZ 1156 HIGH STREET SANTA CRUZ, CA 95064	94-1539563	501(c)(3)	278,726		0 CASH		Sub-award under the federally funded AURA TSIP sub-award N09426C-A for the design of the astronomical instrument the Keck Cosmic Web Imager
(6) MIT LINCOLN LABORATORY 244 WOOD STREET LEXINGTON, MA 02420	04-2103594	501(c)(3)	29,000		0 CASH		Award for the High-Performance CCD Imager Development for Keck Adaptive Optics

2

Enter total number of section 501(c)(3) and government organizations listed in the line 1 table

4

3

Enter total number of other organizations listed in the line 1 table

1

Part III

Grants and Other Assistance to Individuals in the United States. Complete if the organization answered "Yes" to Form 990, Part IV, line 22.
Part III can be duplicated if additional space is needed.

(a)Type of grant or assistance	(b)Number of recipients	(c)Amount of cash grant	(d)Amount of non-cash assistance	(e)Method of valuation (book, FMV, appraisal, other)	(f)Description of non-cash assistance

Part IV

Supplemental Information.

Complete this part to provide the information required in Part I, line 2, Part III, column (b), and any other additional information

Identifier	Return Reference	Explanation
SchI_P01_S00_L02	Schedule I, Part I, Line 2	W M Keck Observatory monitors grantee's performance based on achievement of grant purposes according to federal, state and private foundation conditions and compliance in addition to WMKO internal procedures including A-133 sub-recipient monitoring

Schedule J
(Form 990)

Department of the Treasury
Internal Revenue Service

Compensation Information

For certain Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees

▶ Complete if the organization answered "Yes" to Form 990, Part IV, question 23.

▶ Attach to Form 990. ▶ See separate instructions.

OMB No 1545-0047

2012

Open to Public Inspection

Name of the organization
CALIFORNIA ASSOCIATION FOR RESEARCH IN ASTRONOMY

Employer identification number
95-3972799

Part I

Questions Regarding Compensation

	Yes	No
1a Check the appropriate box(es) if the organization provided any of the following to or for a person listed in Form 990, Part VII, Section A, line 1a Complete Part III to provide any relevant information regarding these items ☐ First-class or charter travel ☐ Travel for companions ☐ Tax idemnification and gross-up payments ☐ Discretionary spending account ☐ Housing allowance or residence for personal use ☐ Payments for business use of personal residence ☐ Health or social club dues or initiation fees ☐ Personal services (e g , maid, chauffeur, chef)		
b If any of the boxes in line 1a are checked, did the organization follow a written policy regarding payment or reimbursement or provision of all of the expenses described above? If "No," complete Part III to explain	1b	
2 Did the organization require substantiation prior to reimbursing or allowing expenses incurred by all officers, directors, trustees, and the CEO/Executive Director, regarding the items checked in line 1a?	2	
3 Indicate which, if any, of the following the filing organization used to establish the compensation of the organization's CEO/Executive Director Check all that apply Do not check any boxes for methods used by a related organization to establish compensation of the CEO/Executive Director, but explain in Part III ☐ Compensation committee ☐ Independent compensation consultant ☐ Form 990 of other organizations ☐ Written employment contract ☒ Compensation survey or study ☒ Approval by the board or compensation committee		
4 During the year, did any person listed in Form 990, Part VII, Section A, line 1a with respect to the filing organization or a related organization		
a Receive a severance payment or change-of-control payment?	4a	No
b Participate in, or receive payment from, a supplemental nonqualified retirement plan?	4b	No
c Participate in, or receive payment from, an equity-based compensation arrangement? If "Yes" to any of lines 4a-c, list the persons and provide the applicable amounts for each item in Part III	4c	No
Only 501(c)(3) and 501(c)(4) organizations only must complete lines 5-9.		
5 For persons listed in Form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation contingent on the revenues of		
a The organization?	5a	No
b Any related organization? If "Yes," to line 5a or 5b, describe in Part III	5b	No
6 For persons listed in Form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation contingent on the net earnings of		
a The organization?	6a	No
b Any related organization? If "Yes," to line 6a or 6b, describe in Part III	6b	No
7 For persons listed in Form 990, Part VII, Section A, line 1a, did the organization provide any non-fixed payments not described in lines 5 and 6? If "Yes," describe in Part III	7	No
8 Were any amounts reported in Form 990, Part VII, paid or accrued pursuant to a contract that was subject to the initial contract exception described in Regulations section 53.4958-4(a)(3)? If "Yes," describe in Part III	8	No
9 If "Yes" to line 8, did the organization also follow the rebuttable presumption procedure described in Regulations section 53.4958-6(c)?	9	

Part II Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees. Use duplicate copies if additional space is needed.

For each individual whose compensation must be reported in Schedule J, report compensation from the organization on row (i) and from related organizations, described in the instructions, on row (ii) Do not list any individuals that are not listed on Form 990, Part VII

Note. The sum of columns (B)(i)-(iii) for each listed individual must equal the total amount of Form 990, Part VII, Section A, line 1a, applicable column (D) and (E) amounts for that individual

(A) Name and Title		(B) Breakdown of W-2 and/or 1099-MISC compensation			(C) Retirement and other deferred compensation	(D) Nontaxable benefits	(E) Total of columns (B)(i)-(D)	(F) Compensation reported as deferred in prior Form 990
		(i) Base compensation	(ii) Bonus & incentive compensation	(iii) Other reportable compensation				
(1)Dr Taft Armandroff Observatory Director	(i)	247,419	0	6,600	24,653	23,865	302,537	0
	(ii)	0	0	0	0	0	0	0
(2)Mr Hilton Lewis Observatory Deputy Director	(i)	217,350	0	0	25,435	20,088	262,873	0
	(ii)	0	0	0	0	0	0	0
(3)Dr Peter Wizinowich Optics Engineering Manager	(i)	174,618	2,250	0	24,353	22,825	224,046	0
	(ii)	0	0	0	0	0	0	0
(4)Mr Richard Matsuda Operations and Infrastructure Manager	(i)	165,545	0	11,090	16,381	22,093	215,109	0
	(ii)	0	0	0	0	0	0	0
(5)Mr Kevin McCann Software Engineering Manager	(i)	162,877	0	0	22,197	20,148	205,222	0
	(ii)	0	0	0	0	0	0	0
(6)Ms Margarita Scheffel Observatory CFO	(i)	145,721	7,000	0	15,516	23,817	192,054	0
	(ii)	0	0	0	0	0	0	0
(7)Mr Kyle Kinoshita Technical Services Manager	(i)	142,968	200	9,888	13,957	20,098	187,111	0
	(ii)	0	0	0	0	0	0	0
(8)Ms Deborah Stednick HR and Office Administration Manager	(i)	137,597	9,113	0	20,425	13,264	180,399	0
	(ii)	0	0	0	0	0	0	0
(9)Mr Sean Adkins Instrument Program Manager	(i)	140,104	350	0	19,516	18,402	178,372	0
	(ii)	0	0	0	0	0	0	0

Part III Supplemental Information

Complete this part to provide the information, explanation, or descriptions required for Part I, lines 1a, 1b, 3, 4a, 4b, 4c, 5a, 5b, 6a, 6b, 7, and 8, and for Part II. Also complete this part for any additional information.

Identifier	Return Reference	Explanation
SchJ_P02_S00_L00	Schedule J, Part II	Section B(III)- OTHER REPORTABLE COMPENSATION Includes employer paid dependent tuition

Software ID: 12000197
Software Version: v1.00
EIN: 95-3972799
Name: CALIFORNIA ASSOCIATION FOR RESEARCH IN ASTRONOMY

Form 990, Schedule J, Part II - Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees

(A) Name		(B) Breakdown of W-2 and/or 1099-MISC compensation			(C) Deferred compensation	(D) Nontaxable benefits	(E) Total of columns (B)(i)-(D)	(F) Compensation reported in prior Form 990 or Form 990-EZ
		(i) Base Compensation	(ii) Bonus & incentive compensation	(iii) Other compensation				
Dr Taft Armandroff	(i)	247,419	0	6,600	24,653	23,865	302,537	0
	(ii)	0	0	0	0	0	0	0
Mr Hilton Lewis	(i)	217,350	0	0	25,435	20,088	262,873	0
	(ii)	0	0	0	0	0	0	0
Dr Peter Wizinowich	(i)	174,618	2,250	0	24,353	22,825	224,046	0
	(ii)	0	0	0	0	0	0	0
Mr Richard Matsuda	(i)	165,545	0	11,090	16,381	22,093	215,109	0
	(ii)	0	0	0	0	0	0	0
Mr Kevin McCann	(i)	162,877	0	0	22,197	20,148	205,222	0
	(ii)	0	0	0	0	0	0	0
Ms Margarita Scheffel	(i)	145,721	7,000	0	15,516	23,817	192,054	0
	(ii)	0	0	0	0	0	0	0
Mr Kyle Kinoshita	(i)	142,968	200	9,888	13,957	20,098	187,111	0
	(ii)	0	0	0	0	0	0	0
Ms Deborah Stednick	(i)	137,597	9,113	0	20,425	13,264	180,399	0
	(ii)	0	0	0	0	0	0	0
Mr Sean Adkins	(i)	140,104	350	0	19,516	18,402	178,372	0
	(ii)	0	0	0	0	0	0	0

SCHEDULE M
(Form 990)

Department of the Treasury
Internal Revenue Service

Noncash Contributions

►Complete if the organizations answered "Yes" on Form 990, Part IV, lines 29 or 30.
► Attach to Form 990.

OMB No 1545-0047

2012

Open to Public Inspection

Name of the organization
CALIFORNIA ASSOCIATION FOR RESEARCH IN ASTRONOMY

Employer identification number
95-3972799

Part I Types of Property

	(a) Check if applicable	(b) Number of contributions or items contributed	(c) Noncash contribution amounts reported on Form 990, Part VIII, line 1g	(d) Method of determining noncash contribution amounts
1 Art—Works of art				
2 Art—Historical treasures				
3 Art—Fractional interests				
4 Books and publications	X		624	RETAIL PRICE
5 Clothing and household goods				
6 Cars and other vehicles				
7 Boats and planes				
8 Intellectual property				
9 Securities—Publicly traded	X	1	3,001	MARKET VALUE
10 Securities—Closely held stock				
11 Securities—Partnership, LLC, or trust interests				
12 Securities—Miscellaneous				
13 Qualified conservation contribution—Historic structures				
14 Qualified conservation contribution—Other				
15 Real estate—Residential				
16 Real estate—Commercial				
17 Real estate—Other				
18 Collectibles				
19 Food inventory				
20 Drugs and medical supplies				
21 Taxidermy				
22 Historical artifacts				
23 Scientific specimens				
24 Archeological artifacts				
25 Other ► (KECK WEEK)	X	4	19,790	MARKET VALUE
26 Other ► ()				
27 Other ► ()				
28 Other ► ()				

29 Number of Forms 8283 received by the organization during the tax year for contributions for which the organization completed Form 8283, Part IV, Donee Acknowledgement

29

0

30a During the year, did the organization receive by contribution any property reported in Part I, lines 1-28 that it must hold for at least three years from the date of the initial contribution, and which is not required to be used for exempt purposes for the entire holding period?

30a

No

b If "Yes," describe the arrangement in Part II

31 Does the organization have a gift acceptance policy that requires the review of any non-standard contributions?

31

No

32a Does the organization hire or use third parties or related organizations to solicit, process, or sell noncash contributions?

32a

No

b If "Yes," describe in Part II

33 If the organization did not report an amount in column (c) for a type of property for which column (a) is checked, describe in Part II

Part II

Supplemental Information. Complete this part to provide the information required by Part I, lines 30b, 32b, and 33, and whether the organization is reporting in Part I, column (b), the number of contributions, the number of items received, or a combination of both. Also complete this part for any additional information.

Identifier	Return Reference	Explanation
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SCHEDULE O
(Form 990 or 990-EZ)

Department of the Treasury
Internal Revenue Service

Supplemental Information to Form 990 or 990-EZ

Complete to provide information for responses to specific questions on Form 990 or to provide any additional information.
▶ Attach to Form 990 or 990-EZ.

OMB No 1545-0047

2012

Open to Public Inspection

Name of the organization CALIFORNIA ASSOCIATION FOR RESEARCH IN ASTRONOMY	Employer identification number 95-3972799
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Identifier	Return Reference	Explanation
F990_P01_S00_L19	Form 990, Part I, Line 19	
F990_P06_S0A_L02	Form 990, Part VI, Section A, Line 2	BOARD MEMBERS George Blumenthal, Elaine Stammen, Nathan Brostrom and Sandra Faber had a business relationship through the University of California Edward Stolper, Shrinivas Kulka rni and Thomas Soifer had a business relationship through California Institute of Technolo gy California Institute of Technology and University of California provide various instru ment and adaptive optics development services to CARA During tax year 2012, total expendi tures for these services charged to CARA were \$2,090,329 by Caltech, and \$402,488 by UC
F990_P06_S0A_L07a	Form 990, Part VI, Section A, Line 7a	BOARD MEMBER DESIGNATION Per the 1992 Amended and Restated agreement betw een the Universi ty of California and California Institute of Technology, the Presidents at both institutio ns each designate three board members to serve on the CARA board
F990_P06_S0B_L11b	Form 990, Part VI, Section B, Line 11b	DISTRIBUTION OF THE 990 TO THE BOARD Management prepares the Form 990 A draft Form 990 i s provided to the Audit Committee for review and comment After any required changes are m ade and prior to filing, management distributes a final copy to the Board indicating who p repared and reviewed the Form 990, and who will sign and file the Form by the due date
F990_P06_S0B_L12c	Form 990, Part VI, Section B, Line 12c	CONFLICT OF INTEREST DISCLOSURE Annually each board member is required to disclose and si gn a board governance document indicating any business, personal or family relationships w ith other board members, staff or major vendors involving themselves and/or their family m embers The signed disclosures are then reviewed by the Audit Committee and the Audit Comm ittee Chair notifies the Board of any conflicts sufficient to warrant the attention of the Board Key employees and the five highest compensated employees are required to disclose and sign an annual information request indicating any family or business relationships tha t may impact organizational management and governance
F990_P06_S0B_L13	Form 990, Part VI, Section B, Line 13	WHISTLEBLOWER POLICY Haw all state labor laws require posting of the State's Whistleblow er Protection Law notice which outlines a standard whistleblow er process CARA complied with the workplace labor posting laws during tax year 2012
F990_P06_S0B_L14	Form 990, Part VI, Section B, Line 14	RECORDS RETENTION Financial records follow both the IRS retention guidelines and the requ irements of the federal government for federal awards issued under OMB Circular A-110
F990_P06_S0B_L15	Form 990, Part VI, Section B, Line 15	PROCESS FOR DETERMINING COMPENSATON FOR THE DIRECTOR AND DEPUTY DIRECTOR Annually the CAR A Board Executive Committee reviews and approves the two directors' compensation using mar ket compensation studies
F990_P06_S0C_L19	Form 990, Part VI, Section C, Line 19	AVAILABLE TO THE PUBLIC Governance documents and conflict of interest policies are made a vailable upon request Financial statements in the form of an annual audit are published o n the CARA website at www keckobservatory org
F990_P07_S0A_L01d	Form 990, Part VII, Section A, Line 1d	REPORTABLE COMPENSATION FROM THE ORGANIZATION Includes employer paid dependent tuition
F990_P08_S00_L01g	Form 990, Part VIII, Line 1g	NON-CASH CONTRIBUTIONS Donated securities of \$3,001 and in-kind gifts of \$20,414
F990_P08_S00_L02f	Form 990, Part VIII, Line 2f	ALL OTHER PROGRAM SERVICE REVENUE - Includes miscellaneous revenues observatory summit to ur fees to offset labor and transportation costs for VIPs, and fees for professional film crews requiring location support at the summit All activities undertaken to advance scie ntific astronomical discovery
F990_P08_S00_L07a	Form 990, Part VIII, Line 7a	SALES OF ASSETS Sales of donated securities and retired fleet vehicles
F990_P08_S00_L08c	Form 990, Part VIII, Line 8c	Form 990 instructions require reporting fund raising events net of the revenue from the co ntributions received for the event This causes the event to show a negative net income on the Statement of Revenue When the contributions, as disclosed in line 1c, are combined w ith fund raising event net income, the result is a positive net income
F990_P09_S00_L24a	Form 990, Part IX, Line 24a - 24d	CAPITALIZED GRANT EXPENSES A significant portion of CARA's sub-aw ards granted to other or ganizations is for capitalized projects or equipment not deemed expenses The \$2,397,164 r eduction to the functional expense program total is to offset the capital project amounts listed in line 1 for purposes of properly completing Part IV, line 21, grants and other as sistance to governments and organizations
F990_P10_S00_L11	Form 990, Part X, Line 11	INVESTMENTS publicly traded securities-CARA maintains investments with TIAA-CREF that are held to fund the 457(b) deferred compensation obligation
F990_P10_S00_L19	Form 990, Part X, Line 19	DEFERRED REVENUE Consists of advances from the Regents of the University of California an d the Association of Universities for Research in Astronomy for operations and instrument fabrication respectively, and, grant advances from the Gordon and Betty Moore Foundation a nd the W M Keck Foundation for K2 Laser development
F990_P11_S00_L03	Form 990, Part XI, Line 3	NET ASSET CHANGE-Total revenue less expenses for CARA represents primarily the net change in its capitalized fixed assets during the tax year adjusted by any capital asset w rite-of fs rather than net income
F990_P11_S00_L05	Form 990, Part XI, Line 5	NET UNREALIZED GAINS (LOSSES) ON INVESTMENTS-Unrealized gains from the 457(b) publicly traded investments held by TIAA-CREF as of 9-30-13
F990_P11_S00_L06	Form 990, Part XI, Line 6	DONATED SERVICES AND USE OF FACILITIES-CARA received in-kind professional services for its K2 laser development and assistance with Keck Week arrangements

Identifier	Return Reference	Explanation
F990_P11_S00_L09	Form 990, Part XI, Line 9	

TY 2012 Reasonable Cause Explanation

Name: CALIFORNIA ASSOCIATION FOR RESEARCH IN ASTRONOMY

EIN: 95-3972799

Software ID: 12000197

Software Version: v1.00

Explanation: IRS extensions granted on 2-15-14 and 5-15-14 through 8-15-14.