** PUBLIC DISCLOSURE COPY ** Return of Organization Exempt From Income Tax

Under section 501(c), 527, or 4947(a)(1) of the Internal Revenue Code (except private foundations) Do not enter social security numbers on this form as it may be made public.

Department of the Treasury Internal Revenue Service

Go to www.irs.gov/Form990 for instructions and the latest information.

ΑF	or the	2022 calendar year, or tax year beginning	and	ending						
В с	heck if pplicable	C Name of organization			D Employer identifi	cation number				
	Addres	LOWELL OBSERVATORY								
	Name change	Doing business as			86-00989	18				
	Initial return Final return/	Number and street (or P.O. box if mail is not delivered to street address 1400 W. MARS HILL ROAD)	Room/suite	E Telephone number 928-774-3358					
	termin ated	City or town, state or province, country, and ZIP or foreign postal	code		G Gross receipts \$	20,356,870.				
	Ameno return	FLAGSIAFF, AZ 00001-44/0			H(a) Is this a group re	eturn				
	Applic tion	F Name and address of principal officer: JEFF HALL			for subordinates	? Yes X No				
	pendir	SAME AS C ABOVE			H(b) Are all subordinates included? Yes No					
<u> </u>	ax-exe		4947(a)(1)	or 527	If "No," attach a	list. See instructions				
	Vebsit				H(c) Group exemption					
K F	orm of	organization: X Corporation Trust Association Other	-	L Year	of formation: 1946 ı	M State of legal domicile; ${f AZ}$				
Ра	rt I	Summary								
ø		Briefly describe the organization's mission or most significant activities:								
Governance		THE STUDY OF ASTRONOMY AND SHARE THE								
ern		Check this box if the organization discontinued its operations	-		l					
30					3	1 0				
જ		Number of independent voting members of the governing body (Part VI,				203				
Activities		Total number of individuals employed in calendar year 2022 (Part V, line				53				
ţi		Total number of volunteers (estimate if necessary) Total unrelated business revenue from Part VIII, column (C), line 12								
Ac		Net unrelated business taxable income from Form 990-T, Part I, line 11				0.				
Revenue		vet unrelated business taxable meetine from one 1,1 art i, line 11			Prior Year	Current Year				
	8	Contributions and grants (Part VIII, line 1h)			16,708,119.	12,847,808.				
		Program service revenue (Part VIII, line 2g)			4,829,399.					
e e		Investment income (Part VIII, column (A), lines 3, 4, and 7d)			844,836.					
Ä		Other revenue (Part VIII, column (A), lines 5, 6d, 8c, 9c, 10c, and 11e)			440,759.	•				
		Total revenue - add lines 8 through 11 (must equal Part VIII, column (A),			22,823,113.	20,035,165.				
	13	Grants and similar amounts paid (Part IX, column (A), lines 1-3)			1,162,998.	539,475.				
	14	Benefits paid to or for members (Part IX, column (A), line 4)			0.	0.				
S	15	Salaries, other compensation, employee benefits (Part IX, column (A), lin			8,888,610.	11,175,623.				
Expenses	16a	Professional fundraising fees (Part IX, column (A), line 11e)			0.	0.				
xbe	b	Total fundraising expenses (Part IX, column (D), line 25)1,	577 <u>,6</u>	03.						
Ш	''	Other expenses (Part IX, column (A), lines 11a-11d, 11f-24e)			6,023,053.					
		Total expenses. Add lines 13-17 (must equal Part IX, column (A), line 25))		16,074,661.	19,188,129.				
		Revenue less expenses. Subtract line 18 from line 12			6,748,452.					
Net Assets or Fund Balances					ginning of Current Year	End of Year				
sset Bala	20	Total assets (Part X, line 16)			78,377,713.	78,976,661.				
let A	21	Total liabilities (Part X, line 26)			25,508,851. 52,868,862.	23,388,279. 55,588,382.				
Pa	rt II	Net assets or fund balances. Subtract line 21 from line 20			JZ,000,00Z•	33,300,302.				
		Ities of perjury, I declare that I have examined this return, including accompanying	a schedule	s and stateme	ents, and to the hest of my	v knowledge and helief it is				
		t, and complete. Declaration of preparer (other than officer) is based on all inform	-			y Kilowioago ana bollot, it io				
,	001100	gand completel books and of property (early than emotify to become an inform	idilon or w	mon propuror	The any knowledge.					
Sigr	ı	Signature of officer			Date					
Her		ANNE LABRUZZO, CFO								
	_	Type or print name and title								
		Print/Type preparer's name Preparer's signature			Date Check	PTIN				
Paid		MONICA A. VERA, CPA MONICA A. V	/ERA,	CPA 0	8/15/23 if self-employ	P01456278				
Prep	arer	Firm's name BEACHFLEISCHMAN PLLC	<u> </u>			6-0683059				
Use		Firm's address 1985 E. RIVER ROAD, SUITE 20	1							
		TUCSON, AZ 85718			Phone no. 52	0-321-4600				
140	tha IE	2S discuss this return with the preparer shown above? See instructions				X Ves No				

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Total program service expenses

08420815 759078 16383.TAX

including grants of \$

15,582,720.

) (Revenue \$

Par	t 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	Х	
2		organization required to complete Schedule B, Schedule of Contributors? See instructions	2	Х	
3		e organization engage in direct or indirect political campaign activities on behalf of or in opposition to candidates for			
		office? If "Yes," complete Schedule C, Part I	3		Х
4		on 501(c)(3) organizations. Did the organization engage in lobbying activities, or have a section 501(h) election in effect			
		the tax year? If "Yes," complete Schedule C, Part II	4		X
5		organization a section 501(c)(4), 501(c)(5), or 501(c)(6) organization that receives membership dues, assessments, or			
_		amounts as defined in Rev. Proc. 98-19? If "Yes," complete Schedule C, Part III	5		х
6		e organization maintain any donor advised funds or any similar funds or accounts for which donors have the right to			
_		e advice on the distribution or investment of amounts in such funds or accounts? If "Yes," complete Schedule D, Part I	6		х
7		e organization receive or hold a conservation easement, including easements to preserve open space,			
-		vironment, historic land areas, or historic structures? If "Yes," complete Schedule D, Part II	7		х
8		e organization maintain collections of works of art, historical treasures, or other similar assets? If "Yes," complete			
_		ule D, Part III	8	Х	
9		e organization report an amount in Part X, line 21, for escrow or custodial account liability, serve as a custodian for			
Ū		nts not listed in Part X; or provide credit counseling, debt management, credit repair, or debt negotiation services?			
		," complete Schedule D, Part IV	9		x
10		e organization, directly or through a related organization, hold assets in donor-restricted endowments	<u> </u>		
		uasi endowments? If "Yes," complete Schedule D, Part V	10	х	
11		organization's answer to any of the following questions is "Yes," then complete Schedule D, Parts VI, VII, VIII, IX, or X,	-10		
••		plicable.			
а		e organization report an amount for land, buildings, and equipment in Part X, line 10? If "Yes," complete Schedule D,			
u			11a	х	
b		e organization report an amount for investments - other securities in Part X, line 12, that is 5% or more of its total			
-		reported in Part X, line 16? If "Yes," complete Schedule D, Part VII	11b		х
c		e organization report an amount for investments - program related in Part X, line 13, that is 5% or more of its total			
_		reported in Part X, line 16? If "Yes," complete Schedule D, Part VIII	11c		х
d		e organization report an amount for other assets in Part X, line 15, that is 5% or more of its total assets reported in			
_		line 16? If "Yes," complete Schedule D, Part IX	11d		х
e	Did the	e organization report an amount for other liabilities in Part X, line 25? If "Yes," complete Schedule D, Part X	11e	Х	
		e organization's separate or consolidated financial statements for the tax year include a footnote that addresses			
•		ganization's liability for uncertain tax positions under FIN 48 (ASC 740)? If "Yes," complete Schedule D, Part X	11f	х	
12a		e organization obtain separate, independent audited financial statements for the tax year? If "Yes," complete	F		
ı_u		ule D, Parts XI and XII	12a		x
h		ne organization included in consolidated, independent audited financial statements for the tax year?	124		
D			12b	х	
13		," and if the organization answered "No" to line 12a, then completing Schedule D, Parts XI and XII is optionalorganization a school described in section 170(b)(1)(A)(ii)? If "Yes," complete Schedule E	13		х
14a		e organization maintain an office, employees, or agents outside of the United States?	14a		X
		e organization have aggregate revenues or expenses of more than \$10,000 from grantmaking, fundraising, business,	1 74		<u></u>
		ment, and program service activities outside the United States, or aggregate foreign investments valued at \$100,000			
		e? If "Yes," complete Schedule F, Parts I and IV	14b		x
15		e organization report on Part IX, column (A), line 3, more than \$5,000 of grants or other assistance to or for any			
		n organization? If "Yes," complete Schedule F, Parts II and IV	15		x
16		e organization report on Part IX, column (A), line 3, more than \$5,000 of aggregate grants or other assistance to	<u>. </u>		
.0		foreign individuals? If "Yes," complete Schedule F, Parts III and IV	16		x
17		e organization report a total of more than \$15,000 of expenses for professional fundraising services on Part IX,	<u>. </u>		<u> </u>
••		n (A), lines 6 and 11e? If "Yes," complete Schedule G, Part I. See instructions	17		x
18		e organization report more than \$15,000 total of fundraising event gross income and contributions on Part VIII, lines	_ <u></u>		<u> </u>
		1 8a? If "Yes," complete Schedule G, Part II	18		x
19		e organization report more than \$15,000 of gross income from gaming activities on Part VIII, line 9a? If "Yes."			<u> </u>
		ete Schedule G, Part III	19		x
20a		e organization operate one or more hospital facilities? If "Yes," complete Schedule H	20a		X
		" to line 20a, did the organization attach a copy of its audited financial statements to this return?	20b		<u> </u>
21		e organization report more than \$5,000 of grants or other assistance to any domestic organization or			
		J 1 + - 1	1	1	1

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domestic government on Part IX, column (A), line 1? If "Yes." complete Schedule I. Parts I and II

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			Yes	No
22	Did the organization report more than \$5,000 of grants or other assistance to or for domestic individuals on			
	Part IX, column (A), line 2? If "Yes," complete Schedule I, Parts I and III	22		X
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? If "Yes," complete			
	Schedule J	23	Х	<u> </u>
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? If "Yes," answer lines 24b through 24d and complete			77
	Schedule K. If "No," go to line 25a	24a		<u> </u>
	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	24c		
d	any tax-exempt bonds? Did the organization act as an "on behalf of" issuer for bonds outstanding at any time during the year?	24d		
	Section 501(c)(3), 501(c)(4), and 501(c)(29) organizations. Did the organization engage in an excess benefit			
	transaction with a disqualified person during the year? If "Yes," complete Schedule L, Part I	25a		х
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? If "Yes." complete			
	Schedule L, Part I	25b		X
26	Did the organization report any amount on Part X, line 5 or 22, for receivables from or payables to any current			
	or former officer, director, trustee, key employee, creator or founder, substantial contributor, or 35%			
	controlled entity or family member of any of these persons? If "Yes," complete Schedule L, Part II	26		X
27	Did the organization provide a grant or other assistance to any current or former officer, director, trustee, key employee,			
	creator or founder, substantial contributor or employee thereof, a grant selection committee member, or to a 35% controlled			37
	entity (including an employee thereof) or family member of any of these persons? If "Yes," complete Schedule L, Part III	27		X
28	Was the organization a party to a business transaction with one of the following parties (see the Schedule L, Part IV,			
_	instructions for applicable filing thresholds, conditions, and exceptions):			
а	A current or former officer, director, trustee, key employee, creator or founder, or substantial contributor? f	28a		х
h	"Yes," complete Schedule L, Part IV A family member of any individual described in line 28a? If "Yes," complete Schedule L, Part IV	28b		X
	A 35% controlled entity of one or more individuals and/or organizations described in line 28a or 28b? <i>If</i>			
	"Yes," complete Schedule L, Part IV	28c		Х
29	Did the organization receive more than \$25,000 in non-cash contributions? If "Yes," complete Schedule M	29	Х	
30	Did the organization receive contributions of art, historical treasures, or other similar assets, or qualified conservation			
	contributions? If "Yes," complete Schedule M	30		X
31	Did the organization liquidate, terminate, or dissolve and cease operations? If "Yes," complete Schedule N, Part I	31		X
32	Did the organization sell, exchange, dispose of, or transfer more than 25% of its net assets? If "Yes," complete			l
	Schedule N, Part II	32		<u> </u>
33	Did the organization own 100% of an entity disregarded as separate from the organization under Regulations			77
	sections 301.7701-2 and 301.7701-3? If "Yes," complete Schedule R, Part I	33		<u> </u>
34	Was the organization related to any tax-exempt or taxable entity? If "Yes," complete Schedule R, Part II, III, or IV, and	34	х	
35.2	Part V, line 1 Did the organization have a controlled entity within the meaning of section 512(b)(13)?	35a	X	
	If "Yes" to line 35a, did the organization receive any payment from or engage in any transaction with a controlled entity	33a	21	
5	within the meaning of section 512(b)(13)? If "Yes," complete Schedule R, Part V, line 2	35b		х
36	Section 501(c)(3) organizations. Did the organization make any transfers to an exempt non-charitable related organization?			
	If "Yes," complete Schedule R, Part V, line 2	36		X
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? If "Yes," complete Schedule R, Part VI	37		X
38	Did the organization complete Schedule O and provide explanations on Schedule O for Part VI, lines 11b and 19?			
Da	Note: All Form 990 filers are required to complete Schedule O † V Statements Regarding Other IRS Filings and Tax Compliance	38	X	
Pai				
	Check if Schedule O contains a response or note to any line in this Part V			
4-	Enter the number reported in box 3 of Form 1096. Enter -0- if not applicable		Yes	No
	Enter the number reported in box 3 of Form 1096. Enter -0- if not applicable 1a 57 Enter the number of Forms W-2G included on line 1a. Enter -0- if not applicable 1b 0			
	Did the organization comply with backup withholding rules for reportable payments to vendors and reportable gaming			
ŭ	(gambling) winnings to prize winners?	1c	Х	
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1 01111 000 (
Part V	Sta	atements Regarding Other IRS Filings and Tax Compliance (continued)	

					Yes	No	
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	203				
b	If at least one is reported on line 2a, did the organization file all required federal employment tax return		•	2b	Х		
За				За		Х	
b	If "Yes," has it filed a Form 990-T for this year? If "No" to line 3b, provide an explanation on Schedule			3b			
	At any time during the calendar year, did the organization have an interest in, or a signature or other a						
	financial account in a foreign country (such as a bank account, securities account, or other financial a		-	4a		X	
b	If "Yes," enter the name of the foreign country						
	See instructions for filing requirements for FinCEN Form 114, Report of Foreign Bank and Financial A	ccour	its (FBAR).				
5a	Was the organization a party to a prohibited tax shelter transaction at any time during the tax year?			5a		X	
b	Did any taxable party notify the organization that it was or is a party to a prohibited tax shelter transa	ction?		5b		X	
С	If "Yes" to line 5a or 5b, did the organization file Form 8886-T?			5с			
6a	Does the organization have annual gross receipts that are normally greater than \$100,000, and did the	ne orga	anization solicit				
	any contributions that were not tax deductible as charitable contributions?			6a		X	
b	If "Yes," did the organization include with every solicitation an express statement that such contribut	ions o	r gifts				
	were not tax deductible?			6b			
7	Organizations that may receive deductible contributions under section 170(c).						
а	Did the organization receive a payment in excess of \$75 made partly as a contribution and partly for goods and set	rvices	provided to the payor?	7a	X		
b	If "Yes," did the organization notify the donor of the value of the goods or services provided?			7b	X		
С	Did the organization sell, exchange, or otherwise dispose of tangible personal property for which it was	as req	uired				
	to file Form 8282?	 T	 I	7c		Х	
d	If "Yes," indicate the number of Forms 8282 filed during the year	7d	•			77	
е	Did the organization receive any funds, directly or indirectly, to pay premiums on a personal benefit c		:t?	7e		X	
f	Did the organization, during the year, pay premiums, directly or indirectly, on a personal benefit contr			7f		X	
9	If the organization received a contribution of qualified intellectual property, did the organization file Fo			7g			
h	If the organization received a contribution of cars, boats, airplanes, or other vehicles, did the organization received a contribution of cars, boats, airplanes, or other vehicles, did the organization of cars, boats, airplanes, or other vehicles, did the organization of cars, boats, airplanes, or other vehicles, did the organization of cars, boats, airplanes, or other vehicles, did the organization of cars, boats, airplanes, or other vehicles, did the organization of cars, boats, airplanes, or other vehicles, did the organization of cars, boats, airplanes, or other vehicles, did the organization of cars, boats, airplanes, or other vehicles, did the organization of cars, boats, airplanes, or other vehicles, did the organization of cars, boats, airplanes, or other vehicles, did the organization of cars, boats, airplanes, or other vehicles, did the organization of cars, airplanes,			7h			
8	Sponsoring organizations maintaining donor advised funds. Did a donor advised fund maintained	•		0			
0				8			
9 Sponsoring organizations maintaining donor advised funds.a Did the sponsoring organization make any taxable distributions under section 4966?							
b				9a 9b			
10	Section 501(c)(7) organizations. Enter:			35			
а	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:		•				
	Gross income from members or shareholders	11a					
	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.						
а	Is the organization licensed to issue qualified health plans in more than one state?			13a			
	Note: See the instructions for additional information the organization must report on Schedule O.						
b	Enter the amount of reserves the organization is required to maintain by the states in which the	ı	1				
	organization is licensed to issue qualified health plans	13b					
С	Enter the amount of reserves on hand	13c					
14a				14a		X	
	If "Yes," has it filed a Form 720 to report these payments? If "No," provide an explanation on Schedu			14b			
15	Is the organization subject to the section 4960 tax on payment(s) of more than \$1,000,000 in remune					3.7	
	excess parachute payment(s) during the year?			15		X	
	If "Yes," see the instructions and file Form 4720, Schedule N.					37	
16	Is the organization an educational institution subject to the section 4968 excise tax on net investmen	t inco	me?	16		Х	
4-	If "Yes," complete Form 4720, Schedule O.	41					
17	Section 501(c)(21) organizations. Did the trust, or any disqualified or other person engage in any ac			4-			
	that would result in the imposition of an excise tax under section 4951, 4952 or 4953?			17			
	If "Yes," complete Form 6069.						

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LOWELL OBSERVATORY 86-0098918 Form 990 (2022) Part VI Governance, Management, and Disclosure. For each "Yes" response to lines 2 through 7b below, and for a "No" response to line 8a, 8b, or 10b below, describe the circumstances, processes, or changes on Schedule O. See instructions. X Check if Schedule O contains a response or note to any line in this Part VI Section A. Governing Body and Management No Yes **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 on Schedule O. 0 **b** Enter the number of voting members included on line 1a, above, who are independent Did any officer, director, trustee, or key employee have a family relationship or a business relationship with any other X officer, director, trustee, or key employee? 2 Did the organization delegate control over management duties customarily performed by or under the direct supervision 3 Х of officers, directors, trustees, or key employees to a management company or other person? 3 X Did the organization make any significant changes to its governing documents since the prior Form 990 was filed? 4 5 Did the organization become aware during the year of a significant diversion of the organization's assets? 6 Did the organization have members or stockholders? 6 Х 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? Х 7a b Are any governance decisions of the organization reserved to (or subject to approval by) members, stockholders, or persons other than the governing body? X 7b Did the organization contemporaneously document the meetings held or written actions undertaken during the year by the following: Х a The governing body? 8a **b** Each committee with authority to act on behalf of the governing body? Х 8b 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 on Schedule O Section B. Policies (This Section B requests information about policies not required by the Internal Revenue Code.) Yes Nο 10a Did the organization have local chapters, branches, or affiliates? 10a 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? Х 11a Has the organization provided a complete copy of this Form 990 to all members of its governing body before filing the form? 11a b Describe on Schedule O the process, if any, used by the organization to review this Form 990. Х 12a Did the organization have a written conflict of interest policy? If "No," go to line 13 12a Х b Were officers, directors, or trustees, and key employees required to disclose annually interests that could give rise to conflicts? 12b c Did the organization regularly and consistently monitor and enforce compliance with the policy? If "Yes." describe Х 12c on Schedule O how this was done Did the organization have a written whistleblower policy? Х 13 13 Did the organization have a written document retention and destruction policy? 14 X 14 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? Х The organization's CEO, Executive Director, or top management official 15a Х Other officers or key employees of the organization 15b If "Yes" to line 15a or 15b, describe the process on Schedule O. See instructions. 16a Did the organization invest in, contribute assets to, or participate in a joint venture or similar arrangement with a Х taxable entity during the year? 16a 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? 16h Section C. Disclosure NONE List the states with which a copy of this Form 990 is required to be filed Section 6104 requires an organization to make its Forms 1023 (1024 or 1024-A, if applicable), 990, and 990-T (section 501(c)(3)s only) available for public inspection. Indicate how you made these available. Check all that apply X Own website X Upon request Another's website Other (explain on Schedule O) Describe on Schedule O whether (and if so, how) the organization made its governing documents, conflict of interest policy, and financial

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State the name, address, and telephone number of the person who possesses the organization's books and records

statements available to the public during the tax year.

ANNE LABRUZZO - 928-233-3239

1400 W. MARS HILL ROAD, FLAGSTAFF. AZ

86001-4470

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

Check if Schedule O contains a response or note to any line 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 the 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, box 6 of Form 1099-MISC, and/or box 1 of Form 1099-NEC) of more than \$100,000 from the organization and any related organizations.
- List all of the organization's **former** officers, key employees, and 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. See the instructions for the order in which to list the persons above.

(A)	(B)				C)			(D)	(E)	(F)
Name and title	Average		not c	Position heck more than one				Reportable	Reportable	Estimated
	hours per week		box, unless person is both an officer and a director/trustee)					compensation	compensation	amount of other
	(list any	tor	3					from the	from related organizations	compensation
	hours for	direc-				ъ В		organization	(W-2/1099-MISC/	from the
	related	tee or	ustee			ensat		(W-2/1099-MISC/	1099-NEC)	organization
	organizations	al trus	nal tr		loyee	omp.		1099-NEC)		and related
	below line)	Individual trustee or director	Institutional trustee	Officer	Key employee	Highest compensated employee	Former			organizations
(1) HALL, JEFFREY	40.00	드	=	Ó	ž	王高	Œ			
EXECUTIVE DIRECTOR		1		х				189,691.	0.	24,136.
(2) KELLER, CHRISTOPH	40.00									-
DIRECTOR OF SCIENCE					Х			183,459.	0.	20,491.
(3) MASSEY, PHILIP	40.00									
ASTRONOMER		1				X		171,961.	0.	16,634.
(4) HUNTER, DEIDRE	40.00									
ASTRONOMER						Х		166,871.	0.	20,563.
(5) ACTOR, ANN	38.00									
CHIEF PHILANTHROPY OFFICER	2.00				Х			166,065.	0.	17,576.
(6) LABRUZZO, ANNE	36.00	1								
CHIEF FINANCIAL OFFICER	4.00			Х				156,024.	0.	21,843.
(7) WEST, MICHAEL	40.00]								
ASTRONOMER						X		167,600.	0.	9,618.
(8) LEVINE, STEPHEN	40.00	1								
ASTRONOMER						X		158,502.	0.	17,386.
(9) BOSH, AMANDA	40.00	1								
CHIEF OPERATIONS OFFICER	10.00	<u> </u>			Х			151,518.	0.	21,136.
(10) SAWYER, DAVID	40.00	4				l		151 240		45 055
TECHNICAL PROJECT MANAGER	20.00					X		151,340.	0.	15,955.
(11) PUTNAM, W. LOWELL	30.00	٠,,		,,					0	10 406
TRUSTEE	4.00	Х		Х				6.	0.	12,486
		1								
		1								
							-			
	•									- 000 (acce

Form 990 (2022)

Par	Part VII Section A. Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees (continued)												
	(A)	(B)				C)			(D)	(E)		(F)	
	Name and title	Average	(do		Pos		າ than ເ	200	Reportable	Reportable		Estimat	ted
		hours per	box	, unle	ss pe	rson i	is both	n an	compensation	compensation		amount	t of
		week		cer ar	nd a d	lirecto	or/trus T	tee)	from	from related		othe	r
		(list any	ector						the	organizations	(compens	ation
		hours for	or dir	a a			ted		organization	(W-2/1099-MISC/		from t	he
		related	stee (ruste			ensa		(W-2/1099-MISC/	1099-NEC)		organiza	
		organizations	altru	onal t		loyee	lu og		1099-NEC)			and rela	
		below line)	Individual trustee or director	Institutional trustee	Officer	sey employee	Highest compensated employee	Former			'	organizat	tions
		iii ie)	밀	SL.	#	X e	ij ij	요			+		
				_			┢				+		
							\vdash				+		
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											+		
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415	Cubbatal						<u> </u>		1,663,037.	0	. 1	197,8	271
	Subtotal								0.			191,0	0.
	Total from continuation sheets to Part VI								1,663,037.			197,8	
2	Total (add lines 1b and 1c) Total number of individuals (including but n										• -	177,0	24.
2	compensation from the organization	ot iiriitea to tri	ose	IISLE	ual	JOVE	;) WII	o re	ceived more than \$100,	000 of reportable			26
	compensation from the organization											Yes	_
3	Did the organization list any former officer,	director truste	ee k	ev e	mnl	love	e or	hia	hest compensated emp	lovee on			110
·	line 1a? If "Yes," complete Schedule J for s	•		•	•	•		•		•		3	х
4	For any individual listed on line 1a, is the su												
-	and related organizations greater than \$150											4 X	
5	Did any person listed on line 1a receive or a												
	rendered to the organization? If "Yes." com	•				•			•			5	Х
Sec	tion B. Independent Contractors												
1	Complete this table for your five highest co	mpensated ind	lepe	nde	nt co	ontra	acto	rs th	nat received more than \$	100,000 of compen	satio	n from	
	the organization Report compensation for	the calendar ve	ar e	ndir	ימ אי	ith c	or wi	thin	the organization's tax v	ear			

(A)	(B)	(C)
Name and business address	Description of services	Compensation
BUILDING & ENGINEERING CONTRACTORS SOUTHWES		
P.O. BOX 30458, FLAGSTAFF, AZ 86003	CONSTRUCTION	5,369,598.
SOUTHWEST RESEARCH INSTITUTE, 1050 WALNUT		
STREET, SUITE 300, BOULDER, CO 80302	CONSULTING	625,000.
JOHNSON WALZER ASSOCIATES, LLC, 17 N. SAN		
FRANCISCO STREET, SUITE 3A, FLAGSTAFF, AZ	CONSTRUCTION	624,800.
HART SCIENTIFIC CONSULTING INTERNATIONAL, L		
2002 N. FORBES BLVD. #102, TUCSON, AZ 85745	CONSULTING	502,112.
NORTHERN ARIZONA UNIVERSITY		
PO BOX 4080, FLAGSTAFF, AZ 86011-4070	CONSULTING	339,586.
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 12		
		000

Form **990** (2022)

86-0098918

Form 990 (2022) LOWELL
Part VIII Statement of Revenue

		Check if Schedule O contains a response o	r note to any line	e in this Part VIII			
		<u> </u>	,	(A)	(B)	(C)	(D)
				Total revenue	Related or exempt function revenue	Unrelated business revenue	Revenue excluded from tax under
					lunction revenue	business revenue	sections 512 - 514
इ इ	1 :	a Federated campaigns 1a					
ran		b Membership dues 1b	364,522.				
E G		c Fundraising events 1c					
ar A		d Related organizations 1d	310,812.				
Contributions, Gifts, Grants and Other Similar Amounts		e Government grants (contributions) 1e	7,316,836.				
ion	1	f All other contributions, gifts, grants, and					
but		similar amounts not included above 1f	4,855,638.				
d di	,	g Noncash contributions included in lines 1a-1f	36,757.				
a S		h Total. Add lines 1a-1f		12,847,808.			
			Business Code				
e l	2	a RESEARCH - GOVERNMENT CONTRACTS	541700	2,511,002.	2,511,002.		
r V	ı	b EDUCATIONAL PROGRAMS	611600	1,742,401.	1,742,401.		
Se	(TELESCOPE ACCESS FEES	541700	1,650,395.	1,650,395.		
Program Service Revenue		d					
ogr	(e					
Ā	1	f All other program service revenue					
		g Total. Add lines 2a-2f		5,903,798.			
	3	Investment income (including dividends, interes	st, and				
		other similar amounts)		43,412.			43,412.
	4	Income from investment of tax-exempt bond pro	oceeds				
	5	Royalties					
		(i) Real	(ii) Personal				
	6	a Gross rents 6a					
	ı	b Less: rental expenses 6b					
	(c Rental income or (loss) 6c					
		d Net rental income or (loss)					
	7 :	a Gross amount from sales of (i) Securities	(ii) Other				
		assets other than inventory 7a 351,415.	2,000.				
	١	b Less: cost or other basis	_				
nue		and sales expenses 7b 1,643.	0.				
her Revenue		c Gain or (loss)	2,000.	254 552			254 550
æ		d Net gain or (loss)		351,772.			351,772.
	8	a Gross income from fundraising events (not					
Ò		including \$ of					
		contributions reported on line 1c). See					
		Part IV, line 18					
		b Less: direct expenses 8b					
		c Net income or (loss) from fundraising events					
	9 ;	a Gross income from gaming activities. See					
		Part IV, line 19 9a b Less: direct expenses 9b					
		c Net income or (loss) from gaming activities					
		a Gross sales of inventory, less returns					
	10	and allowances	685,833.				
		b Less: cost of goods sold 10b	320,062.				
		- Net in a success ou (leas) from select of inventors.	,	365,771.	365,771.		
		- Net meetic of (loss) from sales of inventory	Business Code	, , , , , , , , , , , , , , , , , , , ,	7.00		
sno	11 :	a MISCELLANEOUS INCOME	900099	522,604.	522,604.		
nec		b		,	,		
Miscellaneous Revenue		c					
<u>Š</u> č	Ì	d All other revenue					
Σ		e Total. Add lines 11a-11d		522,604.			
	12	Total revenue. See instructions		20,035,165.	6,792,173.	0.	395,184.

232009 12-13-22

Form **990** (2022)

Form 990 (2022) LOWELL OBSERVATORY Part IX Statement of Functional Expenses

	on 501(c)(3) and 501(c)(4) organizations must comp Check if Schedule O contains a respon		this Part IX		
	not include amounts reported on lines 6b, 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 domestic organizations				
	and domestic governments. See Part IV, line 21	539,475.	539,475.		
2	Grants and other assistance to domestic				
	individuals. See Part IV, line 22				
3	Grants and other assistance to foreign				
	organizations, foreign governments, and foreign				
	individuals. See Part IV, lines 15 and 16				
4	Benefits paid to or for members				
5	Compensation of current officers, directors,	369,702.	30,257.	284,983.	54,462
6	trustees, and key employees	309,702.	30,237.	204,303.	34,402
6	Compensation not included above to disqualified persons (as defined under section 4958(f)(1)) and				
7	Other salaries and wages	8,813,558.	7,327,340.	546,670.	939,548
8	Pension plan accruals and contributions (include	3,013,330.	1,521,540	5 2 5 7 5 7 5 6	222,340
J	section 401(k) and 403(b) employer contributions)	382,934.	329,534.	14,955.	38,445
9	Other employee benefits	945,206.	777,402.	72,123.	95,681
10	Payroll taxes	664,223.	548,146.	47,946.	68,131
11	Fees for services (nonemployees):	,==	,		,
a	Management				
b	Legal	105,430.	8,788.	96,642.	
	Accounting	59,500.	•	59,500.	
	Lobbying	,		,	
е	Professional fundraising services. See Part IV, line 17				
f	Investment management fees	7,164.		7,164.	
g	Other. (If line 11g amount exceeds 10% of line 25,				
	column (A), amount, list line 11g expenses on Sch O.)	1,093,509.	927,669.	131,983.	33,857
12	Advertising and promotion	130,876.	100,364.	983.	29,529
13	Office expenses	572,773.	185,348.	334,559.	52,866
14	Information technology	339,176.	224,923.	21,768.	92,485
15	Royalties				
16	Occupancy	798,896.	726,705.	53,630.	18,561
17	Travel	314,595.	219,325.	31,631.	63,639
18	Payments of travel or entertainment expenses				
	for any federal, state, or local public officials	06.010	10.050	22 242	20.000
19	Conferences, conventions, and meetings	86,219.	18,250.	29,049.	38,920
20	Interest	127,338.	78,591.	48,747.	
21	Payments to affiliates	2,108,108.	2 040 424	12 100	16 104
22	Depreciation, depletion, and amortization	927,034.	2,048,424. 914,530.	43,490. 8,428.	16,194 4,076
23	Insurance	941,034.	914,550.	0,440.	4,076
24	Other expenses. Itemize expenses not covered above. (List miscellaneous expenses on line 24e. If line 24e amount exceeds 10% of line 25, column (A),				
_	amount, list line 24e expenses on Schedule 0.) REPAIRS AND MAINTENANCE	319,470.	301,351.	15,491.	2,628
a b	TRAINING AND DEVELOPMEN	196,252.	48,677.	135,678.	11,897
C	DUES AND SUBSCRIPTIONS	151,394.	120,598.	29,981.	815
d	EE RECRUITMENT AND RELO	87,285.	74,409.	11,459.	1,417
e	All other expenses	48,012.	32,614.	946.	14,452
25	Total functional expenses. Add lines 1 through 24e	19,188,129.	15,582,720.	2,027,806.	1,577,603
<u>26</u>	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)				

Pai	rt X	Balance Sheet			
		Check if Schedule O contains a response or note to any line in this Part X			
			(A) Beginning of year		(B) End of year
	1	Cash - non-interest-bearing	745,834.	1	631,675.
	2	Savings and temporary cash investments	2,040,168.	2	4,653,683.
	3	Pledges and grants receivable, net	14,701,016.	3	13,547,874.
	4	Accounts receivable, net	181,973.	4	212,201.
	5	Loans and other receivables from any current or former officer, director,			
		trustee, key employee, creator or founder, substantial contributor, or 35%			
		controlled entity or family member of any of these persons		5	
	6	Loans and other receivables from other disqualified persons (as defined			
		under section 4958(f)(1)), and persons described in section 4958(c)(3)(B)		6	
ß	7	Notes and loans receivable, net		7	
Assets	8	Inventories for sale or use	93,258.	8	104,363.
ğ	9	Prepaid expenses and deferred charges	416,687.	9	2,216,971
	10a	Land, buildings, and equipment: cost or other			
		basis. Complete Part VI of Schedule D 10a 85,439,753.			
	b	Less: accumulated depreciation 10b 28,553,647.	49,803,548.	10c	56,886,106
	11	Investments - publicly traded securities	9,610,716.	11	0.
	12	Investments - other securities. See Part IV, line 11		12	
	13	Investments - program-related. See Part IV, line 11		13	
	14	Intangible assets	344,555.	14	199,310
	15	Other assets. See Part IV, line 11	439,958.	15	524,478
	16	Total assets. Add lines 1 through 15 (must equal line 33)	78,377,713.	16	78,976,661
	17	Accounts payable and accrued expenses	781,238.	17	807,191.
	18	Grants payable		18	
	19	Deferred revenue	6,649,176.	19	7,033,706
	20	Tax-exempt bond liabilities		20	
	21	Escrow or custodial account liability. Complete Part IV of Schedule D		21	
es	22	Loans and other payables to any current or former officer, director,			
Liabilities		trustee, key employee, creator or founder, substantial contributor, or 35%			
jab		controlled entity or family member of any of these persons	6 005 054	22	0 000 000
_	23	Secured mortgages and notes payable to unrelated third parties	6,025,971.	23	2,000,000.
	24	Unsecured notes and loans payable to unrelated third parties		24	
	25	Other liabilities (including federal income tax, payables to related third			
		parties, and other liabilities not included on lines 17-24). Complete Part X	10 050 466		12 547 202
		of Schedule D	12,052,466.		13,547,382.
	26	Total liabilities. Add lines 17 through 25	25,508,851.	26	23,388,279.
S		Organizations that follow FASB ASC 958, check here			
၁င		and complete lines 27, 28, 32, and 33.	27 020 021		24 560 207
alaı	27	Net assets without donor restrictions	27,038,021.	27	34,560,307.
ĕ	28	Net assets with donor restrictions	25,830,841.	28	21,028,075.
Ĕ		Organizations that do not follow FASB ASC 958, check here			
ř		and complete lines 29 through 33.		-00	
ts	29	Capital stock or trust principal, or current funds		29	
SSE	30	Paid-in or capital surplus, or land, building, or equipment fund		30	
Net Assets or Fund Balances	31	Retained earnings, endowment, accumulated income, or other funds	52,868,862.	31	55 500 202
ž	32	Total net assets or fund balances	78,377,713.	32	55,588,382.
	33	Total liabilities and net assets/fund balances	10,311,113.	33	78,976,661.

Pa	rt XI Reconciliation of Net Assets						
	Check if Schedule O contains a response or note to any line in this Part XI						
1	Total revenue (must equal Part VIII, column (A), line 12)	1		<u>,03</u> !			
2	Total expenses (must equal Part IX, column (A), line 25)	2	<u> 19</u>	,188	3,1	<u>29.</u>	
3	Revenue less expenses. Subtract line 2 from line 1	3			7,0		
4	Net assets or fund balances at beginning of year (must equal Part X, line 32, column (A)) 4 5						
5	Net unrealized gains (losses) on investments	5		-28	3,3	23.	
6	Donated services and use of facilities	6					
7	Investment expenses	7					
8	Prior period adjustments	8	2	,15	5,8	07.	
9	Other changes in net assets or fund balances (explain on Schedule O)	9				0.	
10	Net assets or fund balances at end of year. Combine lines 3 through 9 (must equal Part X, line 32,						
	column (B))	10	55	,588	3,3	82.	
Pa	rt XII Financial Statements and Reporting						
	Check if Schedule O contains a response or note to any line in this Part XII						
					Yes	No	
1	Accounting method used to prepare the Form 990: Cash X Accrual Other						
	If the organization changed its method of accounting from a prior year or checked "Other," explain on Schedule	Ο.					
2a	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				l	
	separate basis, consolidated basis, or both:					l	
	Separate basis Consolidated basis Both consolidated and separate basis						
b	Were the organization's financial statements audited by an independent accountant?			2b	Х		
	If "Yes," check a box below to indicate whether the financial statements for the year were audited on a separate	basis,				l	
	consolidated basis, or both:						
	Separate basis X Consolidated basis Both consolidated and separate basis						
С	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?			2c	Х		
	If the organization changed either its oversight process or selection process during the tax year, explain on Sche	edule O.					
За	As a result of a federal award, was the organization required to undergo an audit or audits as set forth in the						
	Uniform Guidance, 2 C.F.R. Part 200, Subpart F?			За	Х		
b	If "Yes," did the organization undergo the required audit or audits? If the organization did not undergo the required						
	or audits, explain why on Schedule O and describe any steps taken to undergo such audits			3b	Х		
				Form	990	(2022)	

232012 12-13-22

SCHEDULE A

(Form 990)

Total

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.

Attach to Form 990 or Form 990-EZ.

Go to www.irs.gov/Form990 for instructions and the latest information.

2022

Open to Public Inspection

Employer identification number Name of the organization LOWELL OBSERVATORY 86-0098918 Reason for Public Charity Status. (All organizations must complete this part.) See instructions. Part I The organization is not a private foundation because it is: (For lines 1 through 12, check only one box.) A church, convention of churches, or association of churches described in section 170(b)(1)(A)(i). A school described in section 170(b)(1)(A)(ii). (Attach Schedule E (Form 990).) 3 A hospital or a cooperative hospital service organization described in section 170(b)(1)(A)(iii). 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: An organization operated for the benefit of a college or university owned or operated by a governmental unit described in 5 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). X 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.) A community trust described in section 170(b)(1)(A)(vi). (Complete Part II.) An agricultural research organization described in section 170(b)(1)(A)(ix) operated in conjunction with a land-grant college or university or a non-land-grant college of agriculture (see instructions). Enter the name, city, and state of the college or 10 An organization that normally receives (1) more than 33 1/3% 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 33 1/3% 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.) 11 An organization organized and operated exclusively to test for public safety. See section 509(a)(4). 12 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 on lines 12a through 12d that describes the type of supporting organization and complete lines 12e, 12f, and 12g. Type I. A supporting organization operated, supervised, or controlled by its supported organization(s), typically by giving the supported organization(s) the power to regularly appoint or elect a majority of the directors or trustees of the supporting organization. You must complete Part IV, Sections A and B. Type II. A supporting organization supervised or controlled in connection with its supported organization(s), by having control or management of the supporting organization vested in the same persons that control or manage the supported organization(s). You must complete Part IV, Sections A and C. Type III functionally integrated. A supporting organization operated in connection with, and functionally integrated with, its supported organization(s) (see instructions). You must complete Part IV, Sections A, D, and E. Type III non-functionally integrated. A supporting organization operated in connection with its supported organization(s) that is not functionally integrated. The organization generally must satisfy a distribution requirement and an attentiveness requirement (see instructions). You must complete Part IV, Sections A and D, and Part V. Check this box if the organization received a written determination from the IRS that it is a Type I, Type II, Type III functionally integrated, or Type III non-functionally integrated supporting organization. Enter the number of supported organizations Provide the following information about the supported organization(s). (i) Name of supported (ii) EIN (iii) Type of organization (v) Amount of monetary (vi) Amount of other your governing document? (described on lines 1-10 organization support (see instructions) support (see instructions) No above (see instructions))

(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.)

<u>Sec</u>	tion A. Public Support						
Cale	ndar year (or fiscal year beginning in)	(a) 2018	(b) 2019	(c) 2020	(d) 2021	(e) 2022	(f) Total
1	Gifts, grants, contributions, and						
	membership fees received. (Do not						
	include any "unusual grants.")	11300816.	22432053.	12195142.	16708119.	12847808.	75483938.
2	Tax revenues levied for the organ-						
	ization's benefit and either paid to						
	or expended on its behalf						
3	The value of services or facilities						
	furnished by a governmental unit to						
	the organization without charge	121,000.	122,000.	123,000.	124,000.	125,000.	615,000.
4	Total. Add lines 1 through 3	11421816.	22554053.	12318142.	16832119.	12972808.	76098938.
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)						21933441.
6	Public support. Subtract line 5 from line 4.						54165497.
Sec	tion B. Total Support						
Cale	ndar year (or fiscal year beginning in)	(a) 2018	(b) 2019	(c) 2020	(d) 2021	(e) 2022	(f) Total
7	Amounts from line 4	11421816.	22554053.	12318142.	16832119.	12972808.	76098938.
8	Gross income from interest,						
	dividends, payments received on						
	securities loans, rents, royalties,						
	and income from similar sources	2,268.	9,825.	12,208.	14,004.	43,412.	81,717.
9	Net income from unrelated business						
	activities, whether or not the						
	business is regularly carried on						
10	Other income. Do not include gain						
	or loss from the sale of capital						
	assets (Explain in Part VI.)						
11	Total support. Add lines 7 through 10						76180655 .
12	Gross receipts from related activities,	etc. (see instruction	ons)			12 27	,131,683.
13	First 5 years. If the Form 990 is for the	ne organization's fir	rst, second, third,	fourth, or fifth tax y	ear as a section 5	01(c)(3)	
	organization, check this box and stop						
Sec	tion C. Computation of Publi	ic Support Per	centage				
14	Public support percentage for 2022 (I	ine 6, column (f), d	ivided by line 11, o	column (f))		14	71.10 %
	Public support percentage from 2021					15	74.16 %
16a	33 1/3% support test - 2022. If the	organization did no	t check the box or	n line 13, and line	14 is 33 1/3% or m	ore, check this box	
	stop here. The organization qualifies		-				
b	33 1/3% support test - 2021. If the				line 15 is 33 1/3%	or more, check th	is box
	and stop here. The organization qual	•					
17a	10% -facts-and-circumstances test						
	and if the organization meets the fact			-		VI how the organiz	ation
	meets the facts-and-circumstances te	-			-		
b	10% -facts-and-circumstances test						10% or
	more, and if the organization meets the						
46	organization meets the facts-and-circle						
18	Private foundation. If the organization	on did not check a l	box on line 13, 16a	a, 16b, 1/a, or 17b	o, check this box a		(Form 990) 2022

Part III | Support Schedule for Organizations Described in Section 509(a)(2)

(Complete only if you checked the box on line 10 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 Suppo	ort						
Calendar year (or fiscal year begin	ning in)	(a) 2018	(b) 2019	(c) 2020	(d) 2021	(e) 2022	(f) Total
1 Gifts, grants, contributions	, and						
membership fees received.	. (Do not						
include any "unusual grant	:s.")						
2 Gross receipts from admiss merchandise sold or service formed, or facilities furnish any activity that is related to organization's tax-exempt	ces per- ed in to the						
3 Gross receipts from activiti	ies that						
are not an unrelated trade iness under section 513	or bus-						
4 Tax revenues levied for the	e organ-						
ization's benefit and either	paid to						
or expended on its behalf							
5 The value of services or fac	cilities						
furnished by a government	tal unit to						
the organization without ch	narge						
6 Total. Add lines 1 through	5						
7a Amounts included on lines	1, 2, and						
3 received from disqualified	d persons						
b Amounts included on lines 2 and 3 n from other than disqualified persons exceed the greater of \$5,000 or 1% of amount on line 13 for the year	that of the						
c Add lines 7a and 7b							
8 Public support. (Subtract line 7c							
Section B. Total Support	t						l
Calendar year (or fiscal year begin	ning in)	(a) 2018	(b) 2019	(c) 2020	(d) 2021	(e) 2022	(f) Total
9 Amounts from line 6	, ,		, ,	. ,			
10a Gross income from interes dividends, payments receiv securities loans, rents, roya and income from similar so	ved on alties,						
b Unrelated business taxable inc	come						
(less section 511 taxes) from acquired after June 30, 1975	businesses						
c Add lines 10a and 10b							
11 Net income from unrelated activities not included on li whether or not the busines regularly carried on	ne 10b,						
other income. Do not inclu or loss from the sale of cap assets (Explain in Part VI.)	oital						
13 Total support. (Add lines 9, 10c,							
14 First 5 years. If the Form 9	'	rganization's fir	rst, second, third,	fourth, or fifth tax	year as a section (501(c)(3) organization	on,
check this box and stop h		•			•		
Section C. Computation							
15 Public support percentage	for 2022 (line	8, column (f), d	ivided by line 13, o	column (f))		15	
16 Public support percentage						16	
Section D. Computation	of Investm	ent Income	Percentage				
17 Investment income percent	tage for 2022	(line 10c, colur	nn (f), divided by li	ne 13, column (f))		17	
18 Investment income percent	•					18	
19a 33 1/3% support tests - 2	022. If the org	anization did n	ot check the box	on line 14, and line	e 15 is more than 3	33 1/3%, and line 17	7 is not
more than 33 1/3%, check	this box and s	top here. The	organization quali	fies as a publicly s	upported organiza	ation	
b 33 1/3% support tests - 2 line 18 is not more than 33	ū				•	•	
20 Private foundation. If the							
: ::vato iouiiudiioiii ii liic	J. gai iizatiOi i Ui	a not one on a	~~~ ~	a, or 100, 011001 ll			

Part IV | Supporting Organizations

(Complete only if you checked a box on line 12 of Part I. If you checked box 12a, Part I, complete Sections A and B. If you checked box 12b, Part I, complete Sections A and C. If you checked box 12c, Part I, complete Sections A, D, and E. If you checked box 12d, Part I, complete Sections A and D, and complete Part V.)

Section A. All Supporting Organizations

- 1 Are all of the organization's supported organizations listed by name in the organization's governing documents? If "No," describe in Part VI how the supported organizations are designated. If designated by class or purpose, describe the designation. If historic and continuing relationship, explain.
- 2 Did the organization have any supported organization that does not have an IRS determination of status under section 509(a)(1) or (2)? If "Yes," explain in **Part VI** how the organization determined that the supported organization was described in section 509(a)(1) or (2).
- **3a** Did the organization have a supported organization described in section 501(c)(4), (5), or (6)? If "Yes," answer lines 3b and 3c below.
- **b** Did the organization confirm that each supported organization qualified under section 501(c)(4), (5), or (6) and satisfied the public support tests under section 509(a)(2)? If "Yes," describe in **Part VI** when and how the organization made the determination.
- c Did the organization ensure that all support to such organizations was used exclusively for section 170(c)(2)(B) purposes? If "Yes," explain in Part VI what controls the organization put in place to ensure such use.
- **4a** Was any supported organization not organized in the United States ("foreign supported organization")? *If* "Yes," and if you checked box 12a or 12b in Part I, answer lines 4b and 4c below.
- **b** Did the organization have ultimate control and discretion in deciding whether to make grants to the foreign supported organization? If "Yes," describe in **Part VI** how the organization had such control and discretion despite being controlled or supervised by or in connection with its supported organizations.
- c Did the organization support any foreign supported organization that does not have an IRS determination under sections 501(c)(3) and 509(a)(1) or (2)? If "Yes," explain in Part VI what controls the organization used to ensure that all support to the foreign supported organization was used exclusively for section 170(c)(2)(B) purposes.
- 5a Did the organization add, substitute, or remove any supported organizations during the tax year? If "Yes," answer lines 5b and 5c below (if applicable). Also, provide detail in Part VI, including (i) the names and EIN numbers of the supported organizations added, substituted, or removed; (ii) the reasons for each such action; (iii) the authority under the organization's organizing document authorizing such action; and (iv) how the action was accomplished (such as by amendment to the organizing document).
- b Type I or Type II only. Was any added or substituted supported organization part of a class already designated in the organization's organizing document?
- c Substitutions only. Was the substitution the result of an event beyond the organization's control?
- 6 Did the organization provide support (whether in the form of grants or the provision of services or facilities) to anyone other than (i) its supported organizations, (ii) individuals that are part of the charitable class benefited by one or more of its supported organizations, or (iii) other supporting organizations that also support or benefit one or more of the filing organization's supported organizations? If "Yes," provide detail in Part VI.
- 7 Did the organization provide a grant, loan, compensation, or other similar payment to a substantial contributor (as defined in section 4958(c)(3)(C)), a family member of a substantial contributor, or a 35% controlled entity with regard to a substantial contributor? If "Yes," complete Part I of Schedule L (Form 990).
- 8 Did the organization make a loan to a disqualified person (as defined in section 4958) not described on line 7? If "Yes," complete Part I of Schedule L (Form 990).
- 9a Was the organization controlled directly or indirectly at any time during the tax year by one or more disqualified persons, as defined in section 4946 (other than foundation managers and organizations described in section 509(a)(1) or (2))? If "Yes," provide detail in Part VI.
- **b** Did one or more disqualified persons (as defined on line 9a) hold a controlling interest in any entity in which the supporting organization had an interest? If "Yes." provide detail in **Part VI.**
- c Did a disqualified person (as defined on line 9a) have an ownership interest in, or derive any personal benefit from, assets in which the supporting organization also had an interest? If "Yes," provide detail in Part VI.
- 10a Was the organization subject to the excess business holdings rules of section 4943 because of section 4943(f) (regarding certain Type II supporting organizations, and all Type III non-functionally integrated supporting organizations)? If "Yes," answer line 10b below.
 - **b** Did the organization have any excess business holdings in the tax year? (Use Schedule C, Form 4720, to determine whether the organization had excess business holdings.)

		Yes	No
	1		
	2		
	3a		
	3b		
	3D		
	3с		
	4a		
	A L		
	4b		
	4c		
	5a		
	5b		
	5c		
	6		
	7		
	8		
	9a		
	9b		
	9c		
	10a		
	10b		
_			

Pai	Supporting Organizations (continued)			
			Yes	No
11	Has the organization accepted a gift or contribution from any of the following persons?			
а	A person who directly or indirectly controls, either alone or together with persons described on lines 11b and			
	11c below, the governing body of a supported organization?	11a		
b	A family member of a person described on line 11a above?	11b		
С	A 35% controlled entity of a person described on line 11a or 11b above? If "Yes" to line 11a, 11b, or 11c, provide			
	detail in Part VI.	11c		
Sect	tion B. Type I Supporting Organizations			
			Yes	No
1	Did the governing body, members of the governing body, officers acting in their official capacity, or membership of one or			
	more supported organizations have the power to regularly appoint or elect at least a majority of the organization's officers,			
	directors, or trustees at all times during the tax year? If "No," describe in Part VI how the supported organization(s)			
	effectively operated, supervised, or controlled the organization's activities. If the organization had more than one supported organization, describe how the powers to appoint and/or remove officers, directors, or trustees were allocated among the			
	supported organizations and what conditions or restrictions, if any, applied to such powers during the tax year.	1		
	Did the organization operate for the benefit of any supported organization other than the supported			
	organization(s) that operated, supervised, or controlled the supporting organization? If "Yes," explain in			
	Part VI how providing such benefit carried out the purposes of the supported organization(s) that operated,			
	supervised, or controlled the supporting organization.	2		
Sect	tion C. Type II Supporting Organizations	•		
			Yes	No
1	Were a majority of the organization's directors or trustees during the tax year also a majority of the directors			
	or trustees of each of the organization's supported organization(s)? If "No," describe in Part VI how control			
	or management of the supporting organization was vested in the same persons that controlled or managed			
	the supported organization(s).	1		
Sect	tion D. All Type III Supporting Organizations		· · · · ·	
			Yes	No
1	Did the organization provide to each of its supported organizations, by the last day of the fifth month of the			
•	organization's tax year, (i) a written notice describing the type and amount of support provided during the prior tax			
	year, (ii) a copy of the Form 990 that was most recently filed as of the date of notification, and (iii) copies of the			
	organization's governing documents in effect on the date of notification, to the extent not previously provided?	1		
	Were any of the organization's officers, directors, or trustees either (i) appointed or elected by the supported	•		
	organization(s) or (ii) serving on the governing body of a supported organization? If "No," explain in Part VI how			
	the organization maintained a close and continuous working relationship with the supported organization(s).	2		
	By reason of the relationship described on line 2, above, did the organization's supported organizations have a	_		
	significant voice in the organization's investment policies and in directing the use of the organization's			
	income or assets at all times during the tax year? If "Yes," describe in Part VI the role the organization's			
	supported organizations played in this regard.	3		
Sect	tion E. Type III Functionally Integrated Supporting Organizations			
1	Check the box next to the method that the organization used to satisfy the Integral Part Test during the year (see instructions	1.		
· a	The organization satisfied the Activities Test. Complete line 2 below.	,-		
b	The organization is the parent of each of its supported organizations. <i>Complete</i> line 3 <i>below.</i>			
c	The organization supported a governmental entity. Describe in Part VI how you supported a governmental entity (see in	etruction	ic)	
2	Activities Test. Answer lines 2a and 2b below.	.s.; action	Yes	No
	Did substantially all of the organization's activities during the tax year directly further the exempt purposes of			
	the supported organization(s) to which the organization was responsive? If "Yes," then in Part VI identify			
	those supported organizations and explain how these activities directly furthered their exempt purposes,			
	how the organization was responsive to those supported organizations, and how the organization determined			
	that these activities constituted substantially all of its activities.	2a		
b				
~	one or more of the organization's supported organization(s) would have been engaged in? If "Yes," explain in			
	Part VI the reasons for the organization's position that its supported organization(s) would have engaged in			
	these activities but for the organization's involvement.	2b		
3	Parent of Supported Organizations. Answer lines 3a and 3b below.			
	trustees of each of the supported organizations? If "Yes" or "No" provide details in Part VI.	3a		
	Did the organization exercise a substantial degree of direction over the policies, programs, and activities of each	Ja		
	of its supported organizations? If "Yes." describe in Part VI the role played by the organization in this regard.	3b		
		,		

Schedule A (Form 990) 2022

5

Check here if the current year is the organization's first as a non-functionally integrated Type III supporting organization (see

Enter greater of line 2 or line 3.

instructions).

Income tax imposed in prior year

emergency temporary reduction (see instructions)

Distributable Amount. Subtract line 5 from line 4, unless subject to

<u>4</u> 5

6

Schedule A (Form 990) 2022

Schedule B

(Form 990)

Department of the Treasury Internal Revenue Service

Schedule of Contributors

Attach to Form 990 or Form 990-PF. Go to www.irs.gov/Form990 for the latest information. OMB No. 1545-0047

2022

Name of the organization **Employer identification number** LOWELL OBSERVATORY 86-0098918 Organization type (check one):

Filers of:	Section:						
Form 990 or 990-EZ	$\boxed{\textbf{X}}$ 501(c)(3) (enter number) organization						
	4947(a)(1) nonexempt charitable trust not treated as a private foundation						
	527 political organization						
Form 990-PF	501(c)(3) exempt private foundation						
	4947(a)(1) nonexempt charitable trust treated as a private foundation						
	501(c)(3) taxable private foundation						
	s covered by the General Rule or a Special Rule. 7), (8), or (10) organization can check boxes for both the General Rule and a Special Rule. See instructions.						
General Rule							
	n filing Form 990, 990-EZ, or 990-PF that received, during the year, contributions totaling \$5,000 or more (in money or one contributor. Complete Parts I and II. See instructions for determining a contributor's total contributions.						
Special Rules							
sections 509(a)(1) a contributor, during							
contributor, during literary, or education	For an organization described in section 501(c)(7), (8), or (10) filing Form 990 or 990-EZ that received from any one contributor, during the year, total contributions of more than \$1,000 exclusively for religious, charitable, scientific, literary, or educational purposes, or for the prevention of cruelty to children or animals. Complete Parts I (entering "N/A" in column (b) instead of the contributor name and address), II, and III.						
year, contributions is checked, enter h purpose. Don't con	described in section 501(c)(7), (8), or (10) filing Form 990 or 990-EZ that received from any one contributor, during the exclusively for religious, charitable, etc., purposes, but no such contributions totaled more than \$1,000. If this box here the total contributions that were received during the year for an exclusively religious, charitable, etc., nplete any of the parts unless the General Rule applies to this organization because it received nonexclusively e, etc., contributions totaling \$5,000 or more during the year \$						
answer "No" on Part IV, line	at isn't covered by the General Rule and/or the Special Rules doesn't file Schedule B (Form 990), but it must 2, of its Form 990; or check the box on line H of its Form 990-EZ or on its Form 990-PF, Part I, line 2, to certify						

that it doesn't meet the filing requirements of Schedule B (Form 990).

LHA For Paperwork Reduction Act Notice, see the instructions for Form 990, 990-EZ, or 990-PF.

Schedule B (Form 990) (2022)

Schedule B (Form 990) (2022)

Name of organization Employer identification number

LOWELL OBSERVATORY

86-0098918

Part I	Contributors (see instructions). Use duplicate copies of Part I if additional	space is needed.	
(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
1		\$ <u>1,283,400</u> .	Person X Payroll
(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
2		\$ 5,000,000.	Person X Payroll
(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
3		\$ 950,000.	Person X Payroll
(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
4		\$350,000.	Person X Payroll Noncash (Complete Part II for noncash contributions.)
(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
5		\$ <u>1,335,924</u> .	Person X Payroll Noncash (Complete Part II for noncash contributions.)
(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
6		\$\$ <u>517,714.</u>	Person X Payroll

Schedule B (Form 990) (2022)

Name of organization Employer identification number

LOWELL OBSERVATORY 86-0098918

Part I	Contributors (see instructions). Use duplicate copies of Part I if a	dditional space is needed.	
(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
7		\$\$ 310,812.	Person X Payroll
(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
		\$	Person Payroll Noncash (Complete Part II for noncash contributions.)
(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
		\$	Person Payroll Noncash (Complete Part II for noncash contributions.)
(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
		\$	Person Payroll Noncash (Complete Part II for noncash contributions.)
(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
		\$	Person Payroll Noncash (Complete Part II for noncash contributions.)
(a) No.	(b) Name, address, and ZIP + 4	(c) Total contributions	(d) Type of contribution
		\$	Person Payroll Noncash (Complete Part II for noncash contributions.)

Page 3

Name of organization Employer identification number

LOWELL OBSERVATORY

86-0098918

	Noncash Property (see instructions). Use duplicate copies of Pa	art II if additional space is needed.	
(a) No. from Part I	(b) Description of noncash property given	(c) FMV (or estimate) (See instructions.)	(d) Date received
(a) No. rom	(b) Description of noncash property given	(c) FMV (or estimate) (See instructions.)	(d) Date received
		\$	
(a) No. rom art I	(b) Description of noncash property given	(c) FMV (or estimate) (See instructions.)	(d) Date received
		\$	
(a) No. rom Part I	(b) Description of noncash property given	(c) FMV (or estimate) (See instructions.)	(d) Date received
		\$	
(a) No. rom Part I	(b) Description of noncash property given	(c) FMV (or estimate) (See instructions.)	(d) Date received
		\$	
(a) No. From Part I	(b) Description of noncash property given	(c) FMV (or estimate) (See instructions.)	(d) Date received

Page **4**

Name of organization **Employer identification number** LOWELL OBSERVATORY 86-0098918 Part III Exclusively religious, charitable, etc., contributions to organizations described in section 501(c)(7), (8), or (10) that total more than \$1,000 for the year from any one contributor. Complete columns (a) through (e) and the following line entry. For organizations completing Part III, enter the total of exclusively religious, charitable, etc., contributions of \$1,000 or less for the year. (Enter this info. once.) \$ Use duplicate copies of Part III if additional space is needed. (a) No. from (b) Purpose of gift (c) Use of gift (d) Description of how gift is held Part I (e) Transfer of gift Transferee's name, address, and ZIP + 4 Relationship of transferor to transferee (a) No. from (b) Purpose of gift (c) Use of gift (d) Description of how gift is held Part I (e) Transfer of gift Transferee's name, address, and ZIP + 4 Relationship of transferor to transferee (a) No. from (b) Purpose of gift (c) Use of gift (d) Description of how gift is held Part I (e) Transfer of gift Transferee's name, address, and ZIP + 4 Relationship of transferor to transferee (a) No. from (b) Purpose of gift (c) Use of gift (d) Description of how gift is held Part I (e) Transfer of gift Transferee's name, address, and ZIP + 4 Relationship of transferor to transferee

SCHEDULE D (Form 990)

Department of the Treasury Internal Revenue Service

Supplemental Financial Statements
Complete if the organization answered "Yes" on Form 990,
Part IV, line 6, 7, 8, 9, 10, 11a, 11b, 11c, 11d, 11e, 11f, 12a, or 12b.
Attach to Form 990.

Go to www.irs.gov/Form990 for instructions and the latest information.

OMB No. 1545-0047

Inspection

Name of the organization

LOWELL OBSERVATORY

Employer identification number 86-0098918

Pa	organizations Maintaining Donor Advised organization answered "Yes" on Form 990, Part IV, line		Similar Funds	or Accounts	S. Complete if the	ie
		(a) Donor adv	ised funds	(b) Funds	and other accou	nts
1	Total number at end of year					
2	Aggregate value of contributions to (during year)					
3	Aggregate value of grants from (during year)					
4	Aggregate value at end of year					
5	Did the organization inform all donors and donor advisors in w	vriting that the assets	held in donor advise	ed funds		
	are the organization's property, subject to the organization's e	exclusive legal control	?		Yes	☐ No
6	Did the organization inform all grantees, donors, and donor ac					
	for charitable purposes and not for the benefit of the donor or	donor advisor, or for	any other purpose o	conferring		
	impermissible private benefit?				Yes	☐ No
Pai	rt II Conservation Easements. Complete if the org	anization answered "	Yes" on Form 990, F	Part IV, line 7.		
1	Purpose(s) of conservation easements held by the organizatio	n (check all that apply	/).			
	Preservation of land for public use (for example, recreat	ion or education)	Preservation of	a historically in	nportant land area	ı
	Protection of natural habitat	. [Preservation of	a certified histo	oric structure	
	Preservation of open space					
2	Complete lines 2a through 2d if the organization held a qualification	ed conservation conti	ribution in the form o	of a conservation	n easement on th	e last
	day of the tax year.				eld at the End of th	
а	Total number of conservation easements			2a		
b						
С	Number of conservation easements on a certified historic stru	cture included in (a)		2c		
d	Number of conservation easements included in (c) acquired at					
	historic structure listed in the National Register			2d		
3	Number of conservation easements modified, transferred, rele				ring the tax	
	year		·		· ·	
4	Number of states where property subject to conservation ease	ement is located				
5	Does the organization have a written policy regarding the peri		ection, handling of			
	violations, and enforcement of the conservation easements it	holds?			Yes	☐ No
6	Staff and volunteer hours devoted to monitoring, inspecting, h					ear
7	Amount of expenses incurred in monitoring, inspecting, handl	ling of violations, and	enforcing conservat	ion easements	during the year	
8	Does each conservation easement reported on line 2(d) above	e satisfy the requireme	ents of section 170(h	n)(4)(B)(i)		
	and section 170(h)(4)(B)(ii)?				Yes	☐ No
9	In Part XIII, describe how the organization reports conservation					
	balance sheet, and include, if applicable, the text of the footnote	ote to the organization	n's financial stateme	ents that descril	oes the	
	organization's accounting for conservation easements.					
Pai	rt III Organizations Maintaining Collections of	Art, Historical T	reasures, or Ot	her Similar <i>i</i>	Assets.	
	Complete if the organization answered "Yes" on Form	990, Part IV, line 8.				
1a	If the organization elected, as permitted under FASB ASC 958	3, not to report in its r	evenue statement a	nd balance she	et works	
	of art, historical treasures, or other similar assets held for public	lic exhibition, education	on, or research in fu	rtherance of pu	blic	
	service, provide in Part XIII the text of the footnote to its finance	cial statements that d	escribes these item	S.		
b	If the organization elected, as permitted under FASB ASC 958	3, to report in its rever	nue statement and b	alance sheet w	orks of	
	art, historical treasures, or other similar assets held for public	exhibition, education,	or research in furth	erance of publi	c service,	
	provide the following amounts relating to these items:					
	(i) Revenue included on Form 990, Part VIII, line 1			\$		
					518	,303.
2	If the organization received or held works of art, historical trea					
	the following amounts required to be reported under FASB AS					
а		-		\$		
	Assets included in Form 990, Part X					
	For Paperwork Reduction Act Notice, see the Instructions				chedule D (Form	990) 2022

	t III Organizations Maintaining C	ollections of Art	, Historical T	reasures, c	r Othe	r Sir	nilar <i>i</i>	Assets	(contin	ued)	age –
3	Using the organization's acquisition, accession								,		
	collection items (check all that apply):										
а	X Public exhibition	d	Loan or e	xchange progi	ram						
b	Scholarly research	е	Other								
С	Preservation for future generations										
4	Provide a description of the organization's co	ollections and explain	how they furthe	the organizati	on's exe	mpt p	urpose	in Part	XIII.		
5	During the year, did the organization solicit o	r receive donations of	f art, historical tr	easures, or oth	er simila	r asse	ts				
	to be sold to raise funds rather than to be ma							\square	Yes	X	No
Par	t IV Escrow and Custodial Arran								line 9, or		
	reported an amount on Form 990, Pai		· ·								
1a	Is the organization an agent, trustee, custodi	an or other intermedia	ary for contributi	ons or other as	sets not	includ	ded				
	on Form 990, Part X?		•						Yes		No
b	If "Yes," explain the arrangement in Part XIII	and complete the follo	owing table:								
			· ·			Γ			Amount		
С	Beginning balance						1c				
	Additions during the year						1d				
	Distributions during the year						1e				
f	Ending balance					··	1f				
2a	Did the organization include an amount on Fo					litv?			Yes		No
	If "Yes," explain the arrangement in Part XIII.					-			_		Ī
Par											
		(a) Current year	(b) Prior year	(c) Two year			hree yea	ars back	(e) Four	years	back
1a	Beginning of year balance	44,179,628.	36,315,50	9. 30,99	7,339.		26,558	8,269.	33,	571,	683.
b	Contributions	1,024,292.	4,366,06	4. 2,27	8,596.		709	9,421.	<u> </u>		872.
C	Net investment earnings, gains, and losses	-4,704,207.	3,881,79		3,162.			3,194.	-1,	781,	866.
d	Grants or scholarships	294,403.	259,80		5,186.			3,237.			105.
	Other expenditures for facilities	,	,		,			•	,		
•	and programs										
f	Administrative expenses	146,259.	123,92	9. 11	8,402.		120	0,308.		133.	315.
g	End of year balance	40,059,052.	44,179,62		5,509.			7,339.			269.
2	Provide the estimated percentage of the curr							,	,		
a	Board designated or quasi-endowment	1.0240	%	(a)) Hold do.							
b	Permanent endowment 18.5100	%									
	Term endowment 80.4670										
Ū	The percentages on lines 2a, 2b, and 2c short										
За	Are there endowment funds not in the posse	-	ion that are held	and administe	red for th	he					
-	organization by:	oolon or the organizat	ion that are more	and darminote	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				Γ	Yes	No
	(i) Unrelated organizations								3a(i)		X
	(ii) Related organizations								3a(ii)	Х	
h	If "Yes" on line 3a(ii), are the related organiza	tions listed as require	nd on Schedule F	 27					3b	X	
4	Describe in Part XIII the intended uses of the								_ 00		
Par			mont fanas.								
	Complete if the organization answered		Part IV. line 11a	. See Form 99	0. Part X	. line ¹	10.				
	Description of property	(a) Cost or ot	i	ost or other	i i		nulated		(d) Book	valu	
	bescription of property	basis (investm		sis (other)	1 ' '	epreci			(a) B 001	valu	•
12	Land	· ·	•	45,917.		, 23.			445	9.	17.
	Buildings			19,209.		618	,75	8. 1	6,000		
C	Leasehold improvements			46,012.			,73		769		
d	Equipment	I		29,302.			,18		3,592		
	Other			99,313.			,96		6,078		
	Add lines 1a through 1e (Column (d) must o		•		1	<u> </u>	, , , ,		6.886		

Schedule D (Form 990) 2022

Schedule D (Form 990) 2022 LOWELL OBSE	ERVATORY	86	-0098918 Page
Part VII Investments - Other Securities. Complete if the organization answered "Yes"	on Form 000 Port IV line	11h Soc Form 000 Part V line 12	
(a) Description of security or category (including name of security)	(b) Book value	(c) Method of valuation: Cost or end	l-of-vear market value
	(b) DOOK value	(c) Method of Valuation. Cost of end	a-or-year market value
1) Financial derivatives			
2) Closely held equity interests			
(A) Other			
(A)			
(B)			
(C) (D)			
(E)			
(F)			
(G)			
(H)			
Fotal. (Col. (b) must equal Form 990, Part X, col. (B) line 12.)			
Part VIII Investments - Program Related.			
Complete if the organization answered "Yes"	on Form 990 Part IV line	11c See Form 990 Part X line 13	
(a) Description of investment	(b) Book value	(c) Method of valuation: Cost or end	d-of-vear market value
	(b) Book value	(b) Method of Valuation: edge of one	a or your market value
(1) (2)			
(3)			
(5)			
(6)			
(7)			
(8)			
(9)			
Fotal. (Col. (b) must equal Form 990, Part X, col. (B) line 13.)			
Part IX Other Assets.			
Complete if the organization answered "Yes"	on Form 990. Part IV. line	11d. See Form 990. Part X. line 15.	
·) Description		(b) Book value
(1)	,		(-,
(2)			
(3)			
(4)			
(5)			
(6)			
(7)			
(8)			
(9)			
Fotal. (Column (b) must equal Form 990, Part X, col. (B) line Part X Other Liabilities.	ne 15.)		
Complete if the organization answered "Yes"	on Form 990. Part IV. line	11e or 11f. See Form 990. Part X. line 25	
1. (a) Description of liability	, ,		(b) Book value
(1) Federal income taxes			, , , , , , , , , , , , , , , , , , , ,
(2) DUE TO PERCIVAL LOWELL TR	UST UW		13,542,420
(3) DUE TO/FROM OTHER FUNDS			4,962
(4)			1,,,,,,

Total. (Column (b) must equal Form 990, Part X, col. (B) line 25.) Liability for uncertain tax positions. In Part XIII, provide the text of the footnote to the organization's financial statements that reports the organization's liability for uncertain tax positions under FASB ASC 740. Check here if the text of the footnote has been provided in Part XIII

Schedule D (Form 990) 2022

13,547,382.

(5) (6) (7) (8)

Schedule D (Form 990) 2022 LOWELL OBSERVATORY		86-0098918	Page 4
Part XI Reconciliation of Revenue per Audited Financial	Statements With Revenu	e per Return.	
Complete if the organization answered "Yes" on Form 990, Part	IV, line 12a.		
1 Total revenue, gains, and other support per audited financial statement	s	1	
2 Amounts included on line 1 but not on Form 990, Part VIII, line 12:			
a Net unrealized gains (losses) on investments	2a		
b Donated services and use of facilities	2b		
c Recoveries of prior year grants			
d Other (Describe in Part XIII.)			
e Add lines 2a through 2d		2e	
3 Subtract line 2e from line 1		3	
4 Amounts included on Form 990, Part VIII, line 12, but not on line 1:	1 1		
a Investment expenses not included on Form 990, Part VIII, line 7b	4a		
b Other (Describe in Part XIII.)	4b		
c Add lines 4a and 4b		4c	
5 Total revenue. Add lines 3 and 4c. (This must equal Form 990. Part I. lin	e 12.)	5	
Part XII Reconciliation of Expenses per Audited Financia	•	ses per Heturn.	
Complete if the organization answered "Yes" on Form 990, Part			
Total expenses and losses per audited financial statements		1	
2 Amounts included on line 1 but not on Form 990, Part IX, line 25:	1 1		
a Donated services and use of facilities			
b Prior year adjustments			
c Other losses			
d Other (Describe in Part XIII.)	2d		
e Add lines 2a through 2d			
3 Subtract line 2e from line 1		3	
4 Amounts included on Form 990, Part IX, line 25, but not on line 1:	1.1		
a Investment expenses not included on Form 990, Part VIII, line 7b			
b Other (Describe in Part XIII.)			
c Add lines 4a and 4b			
5 Total expenses. Add lines 3 and 4c. (This must equal Form 990, Part I,) Part XIII Supplemental Information.	ine 18.)	5	
	and 4. Dort IV lines 4h and 0h. D	art V. line 4: Dart V. line 0: Dart	VI
Provide the descriptions required for Part II, lines 3, 5, and 9; Part III, lines 1a		art v, iirie 4, Part X, iirie 2, Part	ΛΙ,
lines 2d and 4b; and Part XII, lines 2d and 4b. Also complete this part to provi	ide any additional information.		
PART V, LINE 4:			
IMCI V, DIND 4.			
THE ENDOWMENT FUNDS ARE USED FOR SUPPOR	T OF LOWELL OBSE	RVATORY AND FOR	
THE DISCHILLY FOUND THE ODED FOR DOLLOW	1 01 101111 0001	TOTAL THE TOTAL	
REINVESTMENT.			
112111 110 1111111			
PART X, LINE 2:			
THE FOLLOWING DISCLOSURE IS RELATED TO	THE COMBINED FINA	ANCIAL STATEMENT	S
OF THE LOWELL OBSERVATORY, TRUST U/W OF	PERCIVAL LOWELL	, AND THE LOWELL	
·			
OBSERVATORY FOUNDATION:			
THE OBSERVATORY, THE FOUNDATION, AND TH	<u>IE TRUST ARE EXEM</u>	PT FROM INCOME	
TAXES UNDER BOTH INTERNAL REVENUE CODE	(IRC) SECTION 503	l(C)(3) AND ARIZ	ONA

Schedule D (Form 990) 2022

INCOME TAX LAWS. THE OBSERVATORY IS CLASSIFIED AS OTHER THAN A PRIVATE

Part XIII Supplemental Information (continued)
FOUNDATION UNDER IRC SECTION 509(A)(1). THE FOUNDATION AND THE TRUST ARE
EACH CLASSIFIED AS OTHER THAN A PRIVATE FOUNDATION UNDER IRC SECTION
509(A)(3) AS A SUPPORTING ORGANIZATION OF THE OBSERVATORY. INCOME FROM
CERTAIN ACTIVITIES NOT DIRECTLY RELATED TO THE ORGANIZATION'S TAX-EXEMPT
PURPOSE, HOWEVER, MAY BE SUBJECT TO TAXATION AS UNRELATED BUSINESS TAXABLE
INCOME.
FROM TIME TO TIME, THE ORGANIZATION MAY BE SUBJECT TO PENALTIES AND
INTEREST ASSESSED BY VARIOUS TAXING AUTHORITIES, WHICH ARE CLASSIFIED AS
GENERAL AND ADMINISTRATIVE EXPENSES IF THEY OCCUR.

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" on Form 990, Part IV, line 21 or 22. Attach to Form 990.

2022

OMB No. 1545-0047

CUCK
Open to Public
Inspection

Go to www.irs.gov/Form990 for the latest information.

2 | • **Employer identification number** 86-0098918 COLLABORATION RESEARCH COLLABORATION RESEARCH COLLABORATION RESEARCH COLLABORATION RESEARCH COLLABORATION RESEARCH NASA GRANT - SUBAWARD NASA GRANT - SUBAWARD NASA GRANT - SUBAWARD NASA GRANT - SUBAWARD (h) Purpose of grant NSF GRANT - SUBAWARD TO FUND AN ENDOWMENT or assistance X Yes Grants and Other Assistance to Domestic Organizations and Domestic Governments. Complete if the organization answered "Yes" on Form 990, Part IV, line 21, for any 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 (g) Description of noncash assistance (f) Method of valuation (book, FMV, appraisal, other) 0 。 。 Ö ं 0 (e) Amount of assistance noncash Describe in Part IV the organization's procedures for monitoring the use of grant funds in the United States recipient that received more than \$5,000. Part II can be duplicated if additional space is needed. (d) Amount of cash grant 38,164. 328,074. 49,906, 18,779, 24,451 72,817 Enter total number of section 501(c)(3) and government organizations listed in the line 1 table STATE OF ARIZONA STATE OF FLORIDA STATE OF ARIZONA (c) IRC section (if applicable) 501(C)(3) 501(C)(3) 501(C)(3) Enter total number of other organizations listed in the line 1 table LOWELL OBSERVATORY 59-2924021 47-2052113 74-2579628 86-0196696 33-0175263 25-0965591 General Information on Grants and Assistance (b) EIN criteria used to award the grants or assistance? 1 (a) Name and address of organization 12201 RESEARCH PARKWAY, SUITE 501 1700 E. FORT LOWELL, SUITE 106 LOWELL OBSERVATORY FOUNDATION UNIVERSITY OF CENTRAL FLORIDA NORTHERN ARIZONA UNIVERSITY PLANETARY SCIENCE INSTITUTE 123 UNIVERSITY PLACE, B21 or government UNIVERSITY OF PITTSBURGH ARIZONA STATE UNIVERSITY 1400 W. MARS HILL ROAD PITTSBURGH, PA 15213 Name of the organization FLAGSTAFF, AZ 86001 FLAGSTAFF, AZ 86011 ORLANDO, FL 32826 TUCSON, AZ 85719 P.O. BOX 876011 TEMPE, AZ 85287 P.O. BOX 4070 Part I Part II N

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

Schedule I (Form 990) 2022

Page 1

232241 04-01-22

(h) Purpose of grant or assistance	NASA GRANT - SUBAWARD COLLABORATION RESEARCH					Schedule I (Form 990)
(g) Description of non-cash assistance	2					
(f) Method of valuation (book, FMV, appraisal, other)						
(e) Amount of noncash assistance	.0					
(d) Amount of cash grant	6,387.					
(c) IRC section if applicable	STATE OF MARYLAN					
(b) EIN	52-6002033					
(a) Name and address of organization or government	UNIVERSITY OF MARYLAND - COLLEGE PARK - 3112 LEE BUILDING, 7809 REGENTS DRIVE - COLLEGE PARK, MD 20742					

86-0098918

(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 noncash assistance
Part IV Supplemental Information. Provide the information required in Part I, line 2; Part III, column (b); and any other additional information.	quired in Part I, line	2; Part III, column (b); and any other add	litional information.	
PART I, LINE 2:					
ALL GRANT RECIPIENTS ARE MAJOR UNIVERSI	VERSITIES,	WITH	SOPHISTICATED	SYSTEMS FOR	
ADMINISTERING GRANTS. OBSERVATORY GRANTS	GRANTS TO		THE UNIVERSITIES AF	ARE PAID ON A	
COST REIMBURSEMENT BASIS. THE OBSER	RVATORY PI	RINCIPAL I	NVESTIGATOF	THE OBSERVATORY PRINCIPAL INVESTIGATOR UNDER EACH	
AWARD CLOSELY COORDINATES RESEARCH	EFFORTS V	ИІТН ТНЕ U	EFFORTS WITH THE UNIVERSITY RECEIVING	RECEIVING	
THE SUB AWARD AND REVIEWS EACH INVOICE		ITTED BY T	HE UNIVERSI	SUBMITTED BY THE UNIVERSITY PRIOR TO	
PAYMENT.					

SCHEDULE J (Form 990)

Department of the Treasury

Compensation Information

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

Complete if the organization answered "Yes" on Form 990, Part IV, line 23.

Attach to Form 990.

2022

OMB No. 1545-0047

Open to Public Inspection

Internal Revenue Service

Name of the organization

Go to www.irs.gov/Form990 for instructions and the latest information.

LOWELL OBSERVATORY

Employer identification number 86-0098918

Pa	art 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 on Form 990,			
	Part VII, Section A, line 1a. Complete Part III to provide any relevant information regarding these items.			
	First-class or charter travel Housing allowance or residence for personal use			
	Travel for companions Payments for business use of personal residence			
	Tax indemnification and gross-up payments Health or social club dues or initiation fees			
	Discretionary spending account Personal services (such as maid, chauffeur, chef)			
b	If any of the boxes on 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		<u> </u>
2	Did the organization require substantiation prior to reimbursing or allowing expenses incurred by all directors,			
	trustees, and officers, including the CEO/Executive Director, regarding the items checked on line 1a?	2		<u> </u>
3	Indicate which, if any, of the following the 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 Written employment contract			
	Independent compensation consultant X Compensation survey or study			
	X Form 990 of other organizations X Approval by the board or compensation committee			
4	During the year, did any person listed on Form 990, Part VII, Section A, line 1a, with respect to the filing			
	organization or a related organization:			
а	Receive a severance payment or change-of-control payment?	4a		X
b	Participate in or receive payment from a supplemental nonqualified retirement plan?	4b		<u> X</u>
С	Participate in or receive payment from an equity-based compensation arrangement?	4c		Х
	If "Yes" to any of lines 4a-c, list the persons and provide the applicable amounts for each item in Part III.			
_	Only section 501(c)(3), 501(c)(4), and 501(c)(29) organizations must complete lines 5-9.			
5	For persons listed on Form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation			
	contingent on the revenues of:			v
a	The organization?	5a		X
b	Any related organization?	5b		\vdash
•	If "Yes" on line 5a or 5b, describe in Part III.			
6	For persons listed on Form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation			
	contingent on the net earnings of:	0-		х
	The organization?	6a		X
D	Any related organization?	6b		\vdash
7	If "Yes" on line 6a or 6b, describe in Part III.			
7	For persons listed on Form 990, Part VII, Section A, line 1a, did the organization provide any nonfixed payments	_		v
	not described on lines 5 and 6? If "Yes," describe in Part III	7		X
8	Were any amounts reported on Form 990, Part VII, paid or accrued pursuant to a contract that was subject to the			У
0	initial contract exception described in Regulations section 53.4958-4(a)(3)? If "Yes," describe in Part III	8		X
9	If "Yes" on line 8, did the organization also follow the rebuttable presumption procedure described in			
	Regulations section 53.4958-6(c)?	9		

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

Schedule J (Form 990) 2022

Schedule J (Form 990) 2022

For each individual whose compensation must be reported on 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 aren't listed on Form 990, Part VII. Part II Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees. Use duplicate copies if additional space is needed.

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.

		(B) Breakdown of W-2 and/or 1099-MISC and/or 1099-NEC compensation	-2 and/or 1099-MISC compensation	and/or 1099-NEC	(C) Retirement and other deferred	(D) Nontaxable benefits	(E) Total of columns (B)(i)-(D)	(F) Compensation in column (B)
(A) Name and Title		(i) Base compensation	(ii) Bonus & incentive compensation	(iii) Other reportable compensation	compensation			reported as deferred on prior Form 990
(1) HALL, JEFFREY	(i)	189,691.	0	0.	10,000.	14,136.	213,827.	0
EXECUTIVE DIRECTOR	(ii)	• 0	• 0	0.	0 •	0 •	0 • 0	• 0
(2) KELLER, CHRISTOPH	(i)	183,459.	0.	0.	4,375.	16,116.	203,950.	0
DIRECTOR OF SCIENCE	(ii)	• 0	• 0	0.	0 •	0 •	0 • 0	• 0
(3) MASSEY, PHILIP	(i)	171,961.	0.	0.	8,450.	8,184.	188,595.	0
ASTRONOMER	(ii)	• 0	0.	0.				0
(4) HUNTER, DEIDRE	(i)	166,871.	0.	0.	8,350.	12,213.	187,434.	0
ASTRONOMER	(ii)	• 0	0.	0.	0.	0.	0.	0
(5) ACTOR, ANN	(i)	166,065.	0.	0.	8,350.	9,226.	183,641.	0
CHIEF PHILANTHROPY OFFICER	(ii)	• 0	• 0	0.	0 •	0 •		• 0
(6) LABRUZZO, ANNE	(i)	156,024.	0.	0.	8,200.	13,643.	177,867.	0
CHIEF FINANCIAL OFFICER	(ii)	• 0	• 0	0.	0 •	0 •		• 0
(7) WEST, MICHAEL	(i)	167,600.	0.	0.	8,350.	1,268.	177,218.	0
ASTRONOMER	(ii)	• 0	0.	0.	0.	0.		0
(8) LEVINE, STEPHEN	(i)	158,502.	0.	0.	8,050.	9,336.	175,888.	0
ASTRONOMER	(ii)	• 0	0.	0.	0.	0.	0.	0
(9) BOSH, AMANDA	(i)	151,518.	0.	0.	7,787.	13,349.	172,654.	0
CHIEF OPERATIONS OFFICER	(ii)		0.	0.	0.	0.		0.
(10) SAWYER, DAVID	(i)	151,340.	0.	0.	6,775.	9,180.	167,295.	0
TECHNICAL PROJECT MANAGER	(ii)	0	0	0.	0.	0	0	0
	Ξ							
	(ii)							
	Ξ							
	(ii)							
	(E)							
	(ii)							
	Ξ							
	(ii)							
	Ξ							
	(ii)							
	Ξ							
	(ii)							

SCHEDULE M (Form 990)

Noncash Contributions

OMB No. 1545-0047

Open to Public Inspection

Department of the Treasury Internal Revenue Service

Name of the organization

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

Go to www.irs.gov/Form990 for instructions and the latest information.

Employer identification number

		LOWELL OBSER	VATORY				86-0	0989	918	
Par	t I Ty	pes 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 de cash contribu			S
1	Art - Works	of art								
2	Art - Histor	ical treasures								
3	Art - Fraction	onal interests								
4		publications								
5		nd household goods								
6	Cars and o	ther vehicles								
7	Boats and	planes								
8	Intellectual	property								
9	Securities -	- Publicly traded	X	6	34,557.	TRANS	SACTION	VAI	JUE	
10	Securities -	- Closely held stock								
11	Securities -	- Partnership, LLC, or								
	trust intere									
12	Securities -	- Miscellaneous								
13	Qualified c	onservation contribution -								
	Historic str	ructures								
14		onservation contribution - Other								
15		e - Residential								
16		e - Commercial								
17	Real estate	e - Other								
18	Collectible	s								
19	Food inver	ntory								
20	Drugs and	medical supplies								
21	Taxidermy									
22		artifacts								
23		pecimens								
24	Archeologi	cal artifacts								
25	Other (MATERIAL PRINTI	X	1	2,000.	FAIR	MARKET	VAI	LUE	
26	Other (PAINTINGS)	X	2	200.	FAIR	MARKET	VAI	LUE	
27	Other ()								
28	Other ()								
29		Forms 8283 received by the organia								
	for which t	he organization completed Form 82	83, Part V, D	onee Acknowledg	ement 29					
									Yes	No
30a	-	year, did the organization receive b	-				t it			
		for at least 3 years from the date of								
		rposes for the entire holding period	?					30a		X
b		escribe the arrangement in Part II.								
31		rganization have a gift acceptance				ions? .		31	_X	
32a		rganization hire or use third parties	or related or	ganizations to solid	cit, process, or sell noncash				ι,	
	contributio							32a	X	
		escribe in Part II.								
33		nization didn't report an amount in c	column (c) for	r a type of property	for which column (a) is chec	cked,				
	describe in									
LHA	For Pape	erwork Reduction Act Notice, see	the Instruct	tions for Form 990).		Schedule M	(Forn	า 990)	2022

232141 09-09-22

Part II

AFTER.

DONATION OCCURRED.

SCHEDULE M, LINE 32B:

SCHEDULE O (Form 990)

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 990-EZ or to provide any additional information.

Attach to Form 990 or Form 990-EZ.

Go to www.irs.gov/Form990 for the latest information.

2022 Open to Public Inspection

OMB No. 1545-0047

Name of the organization

LOWELL OBSERVATORY

Employer identification number 86-0098918

FORM 990, PART III, LINE 4A, PROGRAM SERVICE ACCOMPLISHMENTS: TELESCOPE (LDT) DELIVERED APPROXIMATELY 277 SCIENCE NIGHTS USED BY LOWELL STAFF, AS WELL AS ASTRONOMERS AT OUR PARTNER INSTITUTIONS: BOSTON UNIVERSITY, NORTHERN ARIZONA UNIVERSITY, UNIVERSITY OF MARYLAND UNIVERSITY OF TOLEDO, AND YALE UNIVERSITY. IN TOTAL, THE LDT FEATURED PROMINENTLY IN 59 SCIENTIFIC OR TECHNICAL PUBLICATIONS. THE LDT'S GROWING SUITE OF STATE-OF-THE-ART INSTRUMENTS, SUCH AS THE HIGH-PRECISION SPECTROGRAPH EXPRES, ENABLE CUTTING EDGE RESEARCH ACROSS MULTIPLE FIELDS, INCLUDING THE SEARCH FOR EXOPLANETS. LOWELL OBSERVATORY ALSO CONTINUED TO OPERATE OTHER SMALLER TELESCOPES AT ITS ANDERSON MESA SITE AND HAS BEGUN THE PROCESS OF REPLACING ITS ANTIQUATED 31" TELESCOPE WITH A MODERN 1-METER TELESCOPE. ACCESS TO LOCAL TELESCOPES EQUIPPED WITH WORLD-CLASS INSTRUMENTS HAS ENABLED SCIENCE THAT COULD NOT BE DONE ELSEWHERE. IN ADDITION, THE OBSERVATORY IS UNDERTAKING A DRAMATIC EXPANSION OF ITS MAIN CAMPUS ON MARS HILL, INCLUDING PRELIMINARY DESIGN WORK FOR A NEW TECHNICAL SERVICES BUILDING THAT WILL GREATLY INCREASE THE INSTRUMENTATION AND ENGINEERING CAPABILITIES OF ITS TECHNICAL STAFF. FINALLY, LOWELL OBSERVATORY ALSO ENGAGED IN A STRONG PROGRAM OF RESEARCH AND DEVELOPMENT AIMED AT NEW TECHNOLOGIES TO BENEFIT ITS OBSERVING FACILITIES AND THE LARGER ASTRONOMICAL COMMUNITY.

FORM 990, PART III, LINE 4B, PROGRAM SERVICE ACCOMPLISHMENTS:

TO THE 24INCH DYER TELESCOPE. WORKING IN COLLABORATION WITH THE

MARKETING AND COMMUNICATIONS DEPARTMENT, THE OUTREACH TEAM CONTINUED TO

PROVIDE ON-LINE EDUCATIONAL PROGRAMMING. REGULAR OFFERINGS INCLUDED

LHA For Paperwork Reduction Act Notice, see the Instructions for Form 990 or 990-EZ.

Schedule O (Form 990) 2022

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Employer identification number Name of the organization 86-0098918 LOWELL OBSERVATORY "STAR STUFF" PODCASTS, "INTERACTIVE STARGAZING", AND "MARS HILL ALMANAC, " AS WELL AS A MONTHLY SERIES CELEBRATING THE 10TH ANNIVERSARY OF THE FIRST LIGHT OF THE 4.3-METER LOWELL DISCOVERY TELESCOPE. SPECIAL PROGRAMMING IN 2022 INCLUDED THE ANNUAL I HEART PLUTO FESTIVAL (IN HYBRID FORM), THE POPULAR MESSIER MARATHON, AND LIVESTREAMS HIGHLIGHTING LUNAR ECLIPSES, METEOR SHOWERS, AND NATIONAL ASTRONOMY DAY. THE NATIVE AMERICAN ASTRONOMY OUTREACH PROGRAM (NAAOP) TEAM CONDUCTED THEIR CLASSROOM VISITS THROUGHOUT THE SCHOOL YEAR AND HOSTED SUMMER AND WINTER CAMPS FOR STUDENTS. LOWELL EDUCATORS RETURNED TO THE FLAGSTAFF FAMILY FOOD CENTER (FFFC) TO LEAD SCIENCE ACTIVITIES FOR THE CHILDREN THAT FFFC SERVES. THESE VISITS OCCURRED EVERY OTHER WEEK FROM JANUARY THROUGH DECEMBER. THE OBSERVATORY ALSO PARTICIPATED IN SEVERAL LOCAL OUTREACH EVENTS, INCLUDING THE FLAGSTAFF STAR PARTY AND SCIENCE IN THE PARK. PRIVATE EVENTS AND FACILITY RENTALS WERE HOSTED AT LOWELL, AND THE EVENTS TEAM PULLED OFF SEVERAL SUCCESSFUL EVENTS BOTH ON AND OFF-CAMPUS. THE KEMPER AND ETHEL MARLEY FOUNDATION ASTRONOMY DISCOVERY CENTER (ADC) AT LOWELL OBSERVATORY WILL BE A PLACE OF CURIOSITY AND DISCOVERY FOR VISITORS WORLDWIDE. AFTER THREE YEARS OF CONSTRUCTION AND RAISING \$53.6 MILLION DOLLARS FOR THE NEW BUILDING, LOWELL OBSERVATORY EXPECTS TO CELEBRATE A GRAND OPENING IN NOVEMBER 2024. THE THREE-STORY, 40,000-SQUARE-FOOT ADC WILL FEATURE A STATE-OF-THE-ART THEATER, EXHIBIT GALLERIES, AND A ROOFTOP AMPHITHEATER FOR EXPLORING FLAGSTAFF'S FAMOUSLY DARK SKIES. THE ENTIRETY OF THE BUILDING WAS FUNDED THROUGH THE SUPPORT OF DONORS AND STATE-FUNDED GRANTS Α TESTAMENT TO THE INCREDIBLE AMOUNT OF SUPPORT FROM OUR COMMUNITIES AND A SHOW OF HOW MUCH SUCH A SCIENCE CENTER WAS NEEDED IN NORTHERN IN PREPARATION FOR THE ADC, TEAMS ACROSS THE OBSERVATORY HAVE ARIZONA. COME TOGETHER TO PLAN EVERYTHING FROM PROGRAMMING, EXHIBIT DESIGN,

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Name of the organization LOWELL OBSERVATORY

Employer identification number 86-0098918

INTERPRETIVE SIGNAGE NEEDS, BRANDING, AND GUEST TRAFFIC FLOW. MARKETING

VIDEOS WERE RELEASED, GIVING VIEWERS AN ANIMATED TOUR AS A LOOK INTO

THE BUILDING AHEAD OF ITS OPENING. THIS HAS BEEN A TRULY COLLABORATIVE

EFFORT TO ENSURE ALL DEPARTMENT VOICES ARE REPRESENTED.

FORM 990, PART VI, SECTION B, LINE 11B:

THE FORM 990 DRAFT WILL BE FIRST REVIEWED BY THE CHIEF FINANCIAL OFFICER

(CFO) FOR ACCURACY. ONCE IT HAS BEEN DEEMED ACCURATE BY THE CFO, IT WILL BE

FORWARDED TO THE SOLE TRUSTEE, EXECUTIVE DIRECTOR AND AUDIT COMMITTEE FOR

THEIR REVIEW AND COMMENTS. AFTER ANY QUESTIONS AND COMMENTS HAVE BEEN

ADDRESSED, THE 990 WILL BE APPROVED AND A FINAL COPY WILL BE SIGNED AND

FILED BY THE CFO.

FORM 990, PART VI, SECTION B, LINE 12C:

THE ORGANIZATION CONDUCTS WEEKLY REVIEWS OF PAYABLES INCLUDING POTENTIAL

CONFLICTS OF INTEREST AND FOLLOW-UP OCCURS TO ENFORCE COMPLIANCE WITH THE

COMPANY POLICY.

FORM 990, PART VI, SECTION B, LINE 15A:

COMPENSATION OF THE DIRECTOR FOR LOWELL OBSERVATORY IS DETERMINED BY THE

SOLE TRUSTEE OF THE CORPORATION AFTER REVIEW OF INFORMATION PROVIDED BY THE

HUMAN RESOURCE MANAGER AND MEMBERS OF THE ADVISORY BOARD AND LOWELL

OBSERVATORY FOUNDATION WHO HAVE EXPERIENCE IN THE RESEARCH INDUSTRY OR

COMPENSATION AT NON-PROFITS. THE HUMAN RESOURCE MANAGER REVIEWS THE TOTAL

COMPENSATION OF THE DIRECTOR IN ACCORDANCE WITH REGULATIONS/GUIDELINES

ESTABLISHED BY THE IRS AND INDUSTRY BEST PRACTICES. DATA REGARDING SALARIES

OF OTHER DIRECTORS (CEOS) AT ORGANIZATIONS OF SIMILAR SIZE, INCLUDING BOTH

NON-PROFIT AND FOR-PROFIT COMPANIES IS ALSO REVIEWED. THE SOLE TRUSTEE,

Schedule O (Form 990) 2022 Page 2 Name of the organization **Employer identification number** 86-0098918 LOWELL OBSERVATORY WITH ADVICE FROM THE ADVISORY BOARD, ALSO ESTABLISHES GOALS AND OBJECTIVES FOR THE DIRECTOR AND EVALUATES THE PERFORMANCE OF THE DIRECTOR BASED ON THE PRIOR YEAR'S GOALS AND OBJECTIVES. FORM 990, PART VI, SECTION C, LINE 19: WHEN REQUESTED, DOCUMENTS REGARDING THE OBSERVATORY ARE PROVIDED BY THE BUSINESS OFFICE. THE 990 AND AUDITED FINANCIAL STATEMENTS ARE AVAILABLE ON THE LOWELL OBSERVATORY WEBSITE. THE 990 IS ALSO AVAILABLE ON GUIDESTAR AND CHARITY NAVIGATOR. A SUMMARY OF THE CONSOLIDATED FINANCIAL STATEMENTS IS PUBLISHED ANNUALLY IN AN ANNUAL REPORT.

SCHEDULE R (Form 990)

Complete if the organization answered "Yes" on Form 990, Part IV, line 33, 34, 35b, 36, or 37. Related Organizations and Unrelated Partnerships

Attach to Form 990.

Open to Public Inspection 2022

OMB No. 1545-0047

Go to www.irs.gov/Form990 for instructions and the latest information.

Employer identification number 86-0098918

Identification of Disregarded Entities. Complete if the organization answered "Yes" on Form 990, Part IV, line 33. Partl

LOWELL OBSERVATORY

Name of the organization

Department of the Treasury Internal Revenue Service

Direct controlling Identification of Related Tax-Exempt Organizations. Complete if the organization answered "Yes" on Form 990, Part IV, line 34, because it had one or more related tax-exempt organizations during the tax year. End-of-year assets **e** Total income ਉ Legal domicile (state or foreign country) Primary activity Name, address, and EIN (if applicable) of disregarded entity PartII

organizations du mig the tax year.							
(a)	(q)	(၁)	(p)	(e)	(4)	(6)	6 5
Name, address, and EIN	Primary activity	Legal domicile (state or	Exempt Code	Public charity	Direct controlling	section 5 (2(b)(13) controlled	(SI)(a)
of related organization		foreign country)	section	status (if section	entity	entity?	
				501(c)(3))		Yes	No
PERCIVAL LOWELL TRUST UW - 04-2007327							
1400 W MARS HILL ROAD	TRUST F/B/O LOWELL			H	COWELL		
FLAGSTAFF, AZ 86001	OBSERVATORY	ARIZONA	501(C)(3)	LINE 12B, II OBSERVATORY	OBSERVATORY	×	
LOWELL OBSERVATORY FOUNDATION - 47-2052113							
1400 W MARS HILL ROAD	FOUNDATION F/B/O LOWELL						
FLAGSTAFF, AZ 86001	OBSERVATORY	ARIZONA	501(C)(3)	LINE 12B, II N/A	I/A		×

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

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LOWELL OBSERVATORY

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Part III Identification of Related Organizations Taxable as a Partnership. Complete if the organization answered "Yes" on Form 990, Part IV, line 34, because it had one or more related organizations treated as a partnership during the tax year.

(j) (k) General or Percentage managing ownership partner? Yes No		
(j) General or managing partner? Yes No		
Code V-UBI Ge amount in box ma 20 of Schedule Px-10 K-1 (Form 1065) We		
(h) Disproportionate allocations? Yes No		
(g) Share of end-of-year assets		
(f) Share of total income		
(e) Predominant income (related, unrelated, excluded from tax under sections 512-514)		
(d) Direct controlling entity		
(c) Legal domicile (state or foreign country)		
(b) Primary activity		
(a) Name, address, and EIN of related organization		

Identification of Related Organizations Taxable as a Corporation or Trust. Complete if the organization answered "Yes" on Form 990, Part IV, line 34, because it had one or more related organizations treated as a corporation or trust during the tax year. Part IV

		φ.D	No									
8	=	Section 512(b)(13) controlled entity?	Yes N									
\Box	<u> </u>	0 -	Ϋ́									
3	(6)	Share of end-of-year	doodlo									
9	E	Share of total income										
[3	(e)	ype of entity corp, S corp	or trusty									
5	(D)	Direct controlling entity										
- 1	(၁)	Legal domicile (state or foreign	country)									
14	(a)	Primary activity										
	(a)	Name, address, and EIN of related organization										

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Part V Transactions With Related Organizations. Complete if the organization answered "Yes" on Form 990, Part IV, line 34, 35b, or 36.

\vdash	S S	×	-					×	×	×	: >	4 ×	×		×					×	×									0) 2022
F	Yes	_	×	┢		×	\vdash	¥	100		<u> </u>	= =		X	_	×	10 X	1p X	\dashv	1			ס							orm 99
	Parts II-IV?	14	d -		10	16		_		2 - C	- `		1k	<u> </u>	# -	<u>+</u>			10		15	lationships and transaction thresholds.	(d) Method of determining amount involved	END OF YEAR BALANCE						Schedule B (Form 990) 2022
	lated organizations listed ir)																				is line, including covered re	(c) Amount involved	13,542,420.						
	s with one or more re													nization(s)	nization(s)	on(s)						ho must complete th	(b) Transaction type (a-s)	ы						
	Note: Complete line 1 if any entity is listed in Parts II, III, or IV of this schedule. 1 During the tax year, did the organization engage in any of the following transactions with one or more related organizations listed in Parts II-IV?	a Receipt of (i) interest. (ii) annuities. (iii) royalties, or (iv) rent from a controlled entity		: (s)		Loans or loan quarantees by related organization(s)		f Dividends from related organization(s)	····	Purchase of assets from related organization(s)		Exchange of assets with related organization(s) i Lease of facilities equipment or other assets to related organization(s)	k Lease of facilities, equipment, or other assets from related organization(s)	I Performance of services or membership or fundraising solicitations for related organization(s)	m Performance of services or membership or fundraising solicitations by related organization(s)	Sharing of facilities, equipment, mailing lists, or other assets with relat	 Sharing of paid employees with related organization(s) 	p Reimbursement paid to related organization(s) for expenses	q Reimbursement paid by related organization(s) for expenses	r Other transfer of cash or property to related organization(s)		2 If the answer to any of the above is "Yes," see the instructions for information on who must complete this line, including covered relationships and transaction thresholds.	(a) Name of related organization	(1) PERCIVAL LOWELL TRUST UW	(2)	(3)	(4)	(5)	<u> </u>	232.163 09-14-22

Part VI Unrelated Organizations Taxable as a Partnership. Complete if the organization answered "Yes" on Form 990, Part IV, line 37.

amount in box 20 managing ownership of Schedule K-1 Percentage (Form 1065) Yes No 乏 Provide the following information for each entity taxed as a partnership through which the organization conducted more than five percent of its activities (measured by total assets or gross revenue) that was not a related organization. See instructions regarding exclusion for certain investment partnerships. Ξ Dispropor-tionate allocations? Yes No Ξ end-of-year Share of assets <u>6</u> Share of income total (e)
Are all
partners sec.
501(c)(3)
orgs.? Predominant income (related, excluded from tax under sections 512-514) ਉ Legal domicile (state or foreign country) <u>ပ</u> Primary activity <u>@</u> Name, address, and EIN of entity <u>a</u>