

**LOWELL OBSERVATORY**

**YEARS ENDED DECEMBER 31, 2020 AND 2019**

## LOWELL OBSERVATORY

YEARS ENDED DECEMBER 31, 2020 AND 2019

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### **Independent Auditors' Report**

Lowell Observatory Sole Trustee, Lowell Observatory  
Foundation Board of Trustees and Management  
Lowell Observatory  
Flagstaff, Arizona

We have audited the accompanying combined financial statements of Lowell Observatory (the Organization) which comprise the combined statements of financial position as of December 31, 2020 and 2019, and the related combined statements of activities, functional expenses and cash flows for the years then ended and the related notes to the combined financial statements.

#### **Management's Responsibility for the Combined Financial Statements**

Management is responsible for the preparation and fair presentation of these combined financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of combined financial statements that are free from material misstatement, whether due to fraud or error.

#### **Auditors' Responsibility**

Our responsibility is to express an opinion on these combined financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America established by the AICPA Auditing Standards Board and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the combined financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the combined financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the combined financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Organization's preparation and fair presentation of the combined financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Organization's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the combined financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

## **Opinion**

In our opinion, the combined financial statements referred to above present fairly, in all material respects, the financial position of Lowell Observatory as of December 31, 2020 and 2019, and the changes in its net assets and its cash flows for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

## **Report on Combining Information**

Our audits were conducted for the purpose of forming an opinion on the combined financial statements as a whole. All the combining information on pages 27 and 28 is presented for purposes of additional analysis and is not a required part of the combined financial statements. The combining information on pages 27 and 28 is presented for purposes of additional analysis of the combined financial statements rather than to present the financial position, changes in its net assets and cash flows of the individual entities. All of the combining information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the combined financial statements. The information has been subjected to the auditing procedures applied in the audit of the combined financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the combined financial statements or to the combined financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the combined financial statements as a whole.

## **Other Report Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued a report dated April 22, 2021, on our consideration of the Organization's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Organization's internal control over financial reporting and compliance.



Phoenix, Arizona  
April 22, 2021

**LOWELL OBSERVATORY**  
**COMBINED STATEMENTS OF FINANCIAL POSITION**  
**DECEMBER 31, 2020 AND 2019**

<b>ASSETS</b>	<u>2020</u>	<u>2019</u>
Current assets:		
Cash and cash equivalents	\$ 474,939	\$ 156,179
Restricted cash and cash equivalents	796,970	790,973
Restricted certificates of deposit	4,808,558	403,582
Investments	2,172,476	849
Grants receivable	572,103	319,429
Promises to give, current portion	3,151,810	2,788,205
Other current assets	<u>596,347</u>	<u>341,900</u>
Total current assets	<u>12,573,203</u>	<u>4,801,117</u>
Property and equipment, net	47,612,883	48,356,606
Promises to give, net of current portion	11,421,025	10,389,449
Collection item	400,000	400,000
Assets limited to use:		
Investments with donor restrictions	<u>22,220,045</u>	<u>22,787,049</u>
Total noncurrent assets	<u>81,653,953</u>	<u>81,933,104</u>
Total assets	<u>\$ 94,227,156</u>	<u>\$ 86,734,221</u>
 <b>LIABILITIES AND NET ASSETS</b>		
Current liabilities:		
Accounts payable	\$ 241,901	\$ 375,473
Accrued expenses and other current liabilities	<u>110,455</u>	<u>52,661</u>
Total current liabilities	352,356	428,134
Note payable, bank	2,200,971	2,595,000
Long-term debt	150,000	-
Deferred research grant revenue	45,908	44,576
Deferred access fee revenue	<u>7,409,621</u>	<u>7,470,403</u>
Total liabilities	<u>10,158,856</u>	<u>10,538,113</u>
Contingency		
Net assets:		
Without donor restrictions:		
Net invested in property and equipment	45,261,912	45,761,606
Undesignated	(19,367,047)	(16,877,586)
Board designated	<u>2,082,801</u>	<u>-</u>
	27,977,666	28,884,020
With donor restrictions	<u>56,090,634</u>	<u>47,312,088</u>
Total net assets	<u>84,068,300</u>	<u>76,196,108</u>
Total liabilities and net assets	<u>\$ 94,227,156</u>	<u>\$ 86,734,221</u>

See notes to combined financial statements.

**LOWELL OBSERVATORY**

**COMBINED STATEMENT OF ACTIVITIES**

**YEAR ENDED DECEMBER 31, 2020**

	Without donor restrictions	With donor restrictions	Total
Revenues, support and gains:			
Contracts with governmental and other agencies	\$ 3,195,523	\$ -	\$ 3,195,523
Telescope access fees	2,350,197	-	2,350,197
Contributions	4,186,795	7,794,068	11,980,863
Public program revenue	455,745	-	455,745
Investment income, net	529,965	2,754,241	3,284,206
Other income	114,301	-	114,301
Gain on sale of assets	1,642	-	1,642
Net assets released from restrictions	<u>1,769,763</u>	<u>(1,769,763)</u>	<u>-</u>
	<u>12,603,931</u>	<u>8,778,546</u>	<u>21,382,477</u>
Expenses:			
Program services:			
Research	4,245,414	-	4,245,414
Technology	3,971,357	-	3,971,357
Public programs	<u>2,772,183</u>	<u>-</u>	<u>2,772,183</u>
	<u>10,988,954</u>	<u>-</u>	<u>10,988,954</u>
Support services:			
Management and general	1,293,901	-	1,293,901
Fundraising	<u>1,227,430</u>	<u>-</u>	<u>1,227,430</u>
	<u>2,521,331</u>	<u>-</u>	<u>2,521,331</u>
	<u>13,510,285</u>	<u>-</u>	<u>13,510,285</u>
Change in net assets	(906,354)	8,778,546	7,872,192
Net assets, beginning	<u>28,884,020</u>	<u>47,312,088</u>	<u>76,196,108</u>
Net assets, ending	<u>\$ 27,977,666</u>	<u>\$ 56,090,634</u>	<u>\$ 84,068,300</u>

See notes to combined financial statements.

**LOWELL OBSERVATORY**

**COMBINED STATEMENT OF ACTIVITIES**

**YEAR ENDED DECEMBER 31, 2019**

	Without donor restrictions	With donor restrictions	Total
Revenues, support and gains:			
Contracts with governmental and other agencies	\$ 3,276,144	\$ -	\$ 3,276,144
Telescope access fees	2,376,660	-	2,376,660
Contributions	1,601,759	17,899,671	19,501,430
Public program revenue	1,434,428	-	1,434,428
Investment income, net	251,954	3,761,524	4,013,478
Other income	194,861	-	194,861
Gain on sale of assets	56,500	-	56,500
Net assets released from restrictions	<u>4,586,403</u>	<u>(4,586,403)</u>	<u>-</u>
	<u>13,778,709</u>	<u>17,074,792</u>	<u>30,853,501</u>
Expenses:			
Program services:			
Research	4,478,426	-	4,478,426
Technology	4,017,253	-	4,017,253
Public programs	<u>2,637,567</u>	<u>-</u>	<u>2,637,567</u>
	<u>11,133,246</u>	<u>-</u>	<u>11,133,246</u>
Support services:			
Management and general	1,327,811	-	1,327,811
Fundraising	<u>1,203,909</u>	<u>-</u>	<u>1,203,909</u>
	<u>2,531,720</u>	<u>-</u>	<u>2,531,720</u>
	<u>13,664,966</u>	<u>-</u>	<u>13,664,966</u>
Change in net assets	113,743	17,074,792	17,188,535
Net assets, beginning	<u>28,770,277</u>	<u>30,237,296</u>	<u>59,007,573</u>
Net assets, ending	<u>\$ 28,884,020</u>	<u>\$ 47,312,088</u>	<u>\$ 76,196,108</u>

**LOWELL OBSERVATORY**

**COMBINED STATEMENT OF FUNCTIONAL EXPENSES**

**YEAR ENDED DECEMBER 31, 2020**

	Program Services				Supporting Services			Total expenses
	Research	Technology	Public programs	Total program services	Management and general	Fundraising	Total supporting services	
Salaries	\$ 2,323,836	\$ 1,515,789	\$ 1,534,787	\$ 5,374,412	\$ 628,269	\$ 810,107	\$ 1,438,376	\$ 6,812,788
Payroll taxes and benefits	405,909	315,914	315,552	1,037,375	211,168	145,280	356,448	1,393,823
	2,729,745	1,831,703	1,850,339	6,411,787	839,437	955,387	1,794,824	8,206,611
Depreciation	296,693	1,372,289	375,492	2,044,474	46,564	18,334	64,898	2,109,372
Equipment	49,579	27,340	33,793	110,712	5,738	2,598	8,336	119,048
Insurance	11,678	338,003	9,953	359,634	8,630	1,319	9,949	369,583
Interest	-	68,213	-	68,213	2,441	-	2,441	70,654
Other	46,222	22,215	143,079	211,516	80,371	105,529	185,900	397,416
Professional services	711,053	8,820	116,030	835,903	158,334	44,149	202,483	1,038,386
Repairs and maintenance	144,407	160,583	108,642	413,632	37,952	52,849	90,801	504,433
Supplies and postage	106,714	13,654	55,531	175,899	22,338	21,249	43,587	219,486
Training and development	9,876	7,716	8,028	25,620	41,754	3,837	45,591	71,211
Travel and meals	47,643	2,987	14,084	64,714	25,172	12,813	37,985	102,699
Utilities	91,804	117,834	57,212	266,850	25,170	9,366	34,536	301,386
	\$ 4,245,414	\$ 3,971,357	\$ 2,772,183	\$ 10,988,954	\$ 1,293,901	\$ 1,227,430	\$ 2,521,331	\$ 13,510,285

See notes to combined financial statements.



**LOWELL OBSERVATORY**

**COMBINED STATEMENT OF FUNCTIONAL EXPENSES**

**YEAR ENDED DECEMBER 31, 2019**

	Program Services				Supporting Services			Total supporting services	Total expenses
	Research	Technology	Public programs	Total program services	Management and general	Fundraising			
Salaries	\$ 2,297,641	\$ 1,479,980	\$ 1,466,386	\$ 5,244,007	\$ 692,393	\$ 723,135	\$ 1,415,528	\$ 6,659,535	
Payroll taxes and benefits	433,260	315,494	302,459	1,051,213	209,673	134,103	343,776	1,394,989	
	2,730,901	1,795,474	1,768,845	6,295,220	902,066	857,238	1,759,304	8,054,524	
Depreciation	305,920	1,400,161	192,083	1,898,164	35,411	20,152	55,563	1,953,727	
Equipment	27,688	49,706	26,421	103,815	5,253	2,971	8,224	112,039	
Insurance	12,046	301,526	9,887	323,459	5,205	1,199	6,404	329,863	
Interest	-	68,089	-	68,089	-	-	-	68,089	
Other	23,663	86,930	267,213	377,806	47,962	151,441	199,403	577,209	
Professional services	823,713	20,399	40,389	884,501	146,166	35,890	182,056	1,066,557	
Repairs and maintenance	119,879	127,064	98,675	345,618	34,340	44,570	78,910	424,528	
Supplies and postage	99,601	16,834	76,150	192,585	19,150	25,838	44,988	237,573	
Training and development	10,138	6,286	48,508	64,932	97,311	4,510	101,821	166,753	
Travel and meals	217,140	11,094	59,373	287,607	24,339	53,208	77,547	365,154	
Utilities	107,737	133,690	50,023	291,450	10,608	6,892	17,500	308,950	
	<u>\$ 4,478,426</u>	<u>\$ 4,017,253</u>	<u>\$ 2,637,567</u>	<u>\$ 11,133,246</u>	<u>\$ 1,327,811</u>	<u>\$ 1,203,909</u>	<u>\$ 2,531,720</u>	<u>\$ 13,664,966</u>	

See notes to combined financial statements.

**LOWELL OBSERVATORY**

**COMBINED STATEMENTS OF CASH FLOWS**

**YEARS ENDED DECEMBER 31, 2020 AND 2019**

	2020	2019
Cash flows from operating activities:		
Change in net assets	<u>\$ 7,872,192</u>	<u>\$ 17,188,535</u>
Adjustments to reconcile change in net assets to net cash provided by operating activities:		
Depreciation	2,109,372	1,953,727
Net realized and unrealized gains on investments	(2,986,268)	(3,546,205)
Gain on disposal of assets	(1,642)	(56,500)
Changes in operating assets and liabilities:		
Grants receivable	(252,674)	40,717
Promises to give	(1,395,181)	(11,547,626)
Other current assets	(254,447)	(3,133)
Accounts payable	(133,572)	(51,928)
Accrued expenses and other current liabilities	57,794	(37,975)
Deferred research grant revenue	1,332	(40,878)
Deferred access fee revenue	<u>(60,782)</u>	<u>(291,421)</u>
Net adjustments	<u>(2,916,068)</u>	<u>(13,581,222)</u>
Net cash provided by operating activities	<u>4,956,124</u>	<u>3,607,313</u>
Cash flows from investing activities:		
Purchases of property and equipment	(2,395,093)	(4,683,794)
Proceeds from disposal of assets	1,031,086	56,500
Purchases of investments	(4,125,735)	(3,408,827)
Proceeds from sale/maturity of investments	5,507,380	10,166,134
Purchases of certificates of deposit	<u>(4,404,976)</u>	<u>(403,582)</u>
Net cash provided by (used in) investing activities	<u>(4,387,338)</u>	<u>1,726,431</u>
Cash flows from financing activities:		
Payments on note payable, bank	(394,029)	(4,858,421)
Proceed from long-term debt	<u>150,000</u>	<u>-</u>
Net cash used in financing activities	<u>(244,029)</u>	<u>(4,858,421)</u>
Net increase in cash, cash equivalents, and restricted cash and cash equivalents	324,757	475,323
Cash, cash equivalents, and restricted cash and cash equivalents, beginning	<u>947,152</u>	<u>471,829</u>
Cash, cash equivalents, and restricted cash and cash equivalents, ending	<u>\$ 1,271,909</u>	<u>\$ 947,152</u>

See notes to combined financial statements.

## LOWELL OBSERVATORY

### NOTES TO COMBINED FINANCIAL STATEMENTS

#### YEARS ENDED DECEMBER 31, 2020 AND 2019

1. Description of organization and summary of significant accounting policies:

Organization:

Lowell Observatory (the Observatory), located in Flagstaff, Arizona, is a nonprofit organization whose purpose is conducting astronomical research and sponsoring educational programs related to astronomy. The Observatory's mission is to pursue the study of astronomy, especially the study of our solar system and its evolution; to conduct pure research in astronomical phenomena; and to maintain quality public education and outreach programs to bring the results of astronomical research to the general public. The Observatory is overseen by a Sole Trustee, who is the responsible party for all operations of the Observatory. The Observatory's programs are supported primarily by government grants, public contributions, and investment returns. Therefore, the Organization's viability is dependent upon the strength and support provided to the nonprofit industry, and the Organization's ability to collect on its contracts and promises to give.

The Trust U/W of Percival Lowell (the Trust) is a perpetual trust established for the benefit of the Observatory and is overseen by the Sole Trustee of the Observatory. Percival Lowell's will, which established the Trust, was executed on February 21, 1913, with its final codicil dated December 15, 1915. Percival Lowell died November 12, 1916. The Trust has been amended since that date.

The Lowell Observatory Foundation (the Foundation) was established on September 9, 2014 as a non-profit organization governed by an independent board of trustees and dedicated solely to supporting the Observatory's mission.

Principles of consolidation and combination:

The Trust is consolidated into the Observatory. The combined financial statements include the accounts of the Observatory and the Foundation (collectively the Organization). Due from related party and due to related party are obligations between the Observatory and the Foundation that will be satisfied in future years. All significant interorganizational accounts and transactions have been eliminated.

Estimates:

The preparation of combined financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the combined financial statements and the reported amounts of revenues, support, gains and expenses during the reporting period. On an ongoing basis, management evaluates its estimates, including those related to inputs used to recognize revenue over time. Actual results could differ materially from such estimates and assumptions.

## LOWELL OBSERVATORY

### NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)

#### YEARS ENDED DECEMBER 31, 2020 AND 2019

1. Description of organization and summary of significant accounting policies (continued):

Net assets:

Net assets, support, gains, and losses are classified based on the existence or absence of donor or grantor imposed restrictions. Accordingly, net assets and changes therein are classified and reported as follows:

- *Net assets without donor restrictions* - Net assets available for use in general operations and not subject to donor restrictions.
- *Net assets with donor restrictions* - Net assets subject to donor-imposed restrictions. Some donor-imposed restrictions are temporary in nature, such as those that will be met by the passage of time or other events specified by the donor. Other donor-imposed restrictions are perpetual in nature, where the donor stipulates that resources be maintained in perpetuity. Donor-imposed restrictions are released when a restriction expires, that is, when the stipulated time has elapsed, when the stipulated purpose for which the resource was restricted has been fulfilled, or both.

Revenue recognition:

Contracts with governmental and other agencies:

The Observatory has various contracts with governmental and other agencies. For contracts that have an exchange element, revenue is recognized over time as goods or services are transferred and expenditures for services under the provisions of the contract are incurred. Advances received from governmental funding sources in excess of costs incurred under the related exchange contracts are deferred and recognized as revenue when the related expenses are incurred using a cost-based input method. Deferred revenue from research contracts with an exchange element is a contract liability and is classified as deferred research grant revenue on the combined statements of financial position. At January 1, 2019, the balance of deferred research grant revenue was \$85,454. Revenue related to non-exchange contracts with governmental and other agencies is recognized as a contribution.

Telescope access fees:

Telescope access fees are charged to partnering universities for time on the Organization's telescopes in exchange transactions. Advances received from the partnering universities are recorded as deferred revenue. Revenue is recognized at a point in time in the period earned based on actual nights used. Deferred revenue from telescope access fees is a contract liability and is classified as deferred access fee revenue on the combined statements of financial position. At January 1, 2019, the balance of deferred access fee revenue was \$7,761,824.

Contributions:

Contributions are considered non-exchange transactions and are recognized in the appropriate category of net assets in the period received. Contributions of assets other than cash are recorded at their estimated fair value at the date of gift. Conditional promises to give are not recognized until the conditions on which they depend have been substantially met.

## LOWELL OBSERVATORY

### NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)

#### YEARS ENDED DECEMBER 31, 2020 AND 2019

1. Description of organization and summary of significant accounting policies (continued):

Revenue recognition (continued):

Public program revenue:

Public program revenue consists of exchange transactions recognized at a point in time when the related services are provided.

Donated goods and services:

Support arising from donated goods and services is recognized in the combined financial statements at its fair value. Donated services are recognized when the services received meet one of the following criteria:

- (a) create or enhance nonfinancial assets
- (b) require specialized skills, are provided by individuals possessing those skills, and would typically need to be purchased if not provided by donation.

Although the Organization utilizes the services of outside volunteers to perform a variety of tasks that assist the Organization, the fair value of all these services may not be reflected in the combined financial statements because the above criteria are not met.

Transaction price:

For exchange transactions, the transaction price is the amount of consideration the Organization expects to be entitled to in exchange for transferring goods and services to the customer. When a contract has a single performance obligation, the entire transaction price is attributed to that performance obligation. When a contract has more than one performance obligation, the transaction price is allocated to each performance obligation based on estimated relative standalone selling prices of the goods or services at the inception of the contract, which typically is determined using cost plus an appropriate margin.

Performance obligations:

Contracts that constitute exchange transactions are considered to contain a single performance obligation if the promise to transfer individual goods or services is not separately identifiable from other promises in the contracts primarily because the Organization provides a significant service of integrating a complex set of tasks and components into a single project or capability. A series of goods or services are a single performance obligation if the goods or services are substantially the same and each distinct good or service in the series will be satisfied over time and the same method would be used to measure progress towards satisfaction. Contracts that cover multiple performance phases of the product lifecycle (development, production, maintenance and support) are typically considered to have multiple performance obligations even when they are part of a single contract.

## LOWELL OBSERVATORY

### NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)

#### YEARS ENDED DECEMBER 31, 2020 AND 2019

1. Description of organization and summary of significant accounting policies (continued):

Revenue recognition (continued):

Performance obligations (continued):

For contracts with multiple performance obligations, the Organization allocates the transaction price to each performance obligation using the best estimate of the standalone selling price of each distinct good or service in the contract. The Organization invoices its customers over time as the performance obligations are satisfied. Payment is typically due within 30 days of invoice.

Contract combination and modification:

To determine proper revenue recognition for exchange transactions, the Organization evaluates whether two or more contracts should be combined and accounted for as a single contract and whether a combined or single contract should be accounted for as more than one performance obligation. This evaluation requires significant judgment, and the decision to combine contracts or separate a combined or single contract into multiple performance obligations could change the amount of revenue and profit recorded in a given period.

The Organization accounts for contract modifications as a separate contract when the modification results in the promise to deliver additional goods or services that are distinct and the increase in price of the contract is for the same amount as the stand-alone selling price of the additional goods or services included in the modification.

Cost and expense recognition:

Contract costs include direct labor, materials, and indirect costs related to contract performance, such as indirect labor, communications, technology and depreciation costs. Costs charged to certain contracts from government agencies include indirect costs and are subject to audit by the United States Department of the Interior, Interior Business Center, as directed by the Office of National Aeronautics and Space Administration.

Cash and cash equivalents:

All highly liquid debt instruments purchased with a maturity of three months or less are considered to be cash equivalents. All cash and cash equivalents are placed with various credit institutions. At times, such amounts may be in excess of the FDIC insurance limits; however, management does not believe they are exposed to any significant credit risk on cash and cash equivalents.

Restricted cash and cash equivalents consist of amounts received with donor-imposed restrictions. All donor-imposed restrictions on restricted cash and cash equivalents are temporary in nature.

LOWELL OBSERVATORY

NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)

YEARS ENDED DECEMBER 31, 2020 AND 2019

1. Description of organization and summary of significant accounting policies (continued):

Cash and cash equivalents (continued):

The following table provides a reconciliation of cash and cash equivalents, and restricted cash and cash equivalents reported on the combined statements of financial position to the combined statements of cash flows:

	<u>2020</u>	<u>2019</u>
Cash and cash equivalents	\$ 474,939	\$ 156,179
Restricted cash and cash equivalents	<u>796,970</u>	<u>790,973</u>
	<u>\$ 1,271,909</u>	<u>\$ 947,152</u>

The restrictions on cash and cash equivalents restricted by donors will lapse when the funds are spent on the related restricted purposes.

Investments:

Investments are carried at fair value. Donated investments are recorded at fair value at the date of gift. Investment gains and losses are included in the changes in net assets in the accompanying combined statements of activities as increases or decreases in net assets without donor restrictions unless their use is restricted by explicit donor-imposed stipulations or legal requirements net of related investment fees. Realized gains or losses on disposition of investments are recorded on a trade date basis using the specific identification method. Dividends and interest income are accrued when earned. Investments are considered to be impaired when a decline in fair value is judged to be other-than-temporary.

Fair value measurements:

Fair value is defined as the price to sell an asset or transfer a liability between market participants in an orderly exchange in the principal or most advantageous market for that asset or liability. The fair value for qualifying alternative investments is determined based on the investment's net asset value as a practical expedient. Considerable judgment is required in interpreting market data used to develop the estimates of fair value. Accordingly, the estimates presented in the combined financial statements are not necessarily indicative of the amounts that could be realized in a current market exchange. The use of different market assumptions and estimation methodologies may have a material effect on the estimated fair value.

Grants receivable:

The Organization records grants receivable for its unconditional rights to consideration arising from performance under contracts with customers that are primarily Federal Government agencies. The carrying value of such receivables, net of allowance for doubtful accounts, represents their estimated net realizable value. At January 1, 2019, the balance of grants receivable was \$360,146.

**LOWELL OBSERVATORY**

**NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)**

**YEARS ENDED DECEMBER 31, 2020 AND 2019**

1. Description of organization and summary of significant accounting policies (continued):

Grants receivable (continued):

The Organization grants unsecured credit without interest to governmental agencies. The Organization grants credit to all other customers, generally without collateral or interest. Grants receivable consist primarily of uncollateralized obligations from the Federal Government agencies related to amounts earned but uncollected from the Organization's contracts with those agencies. Payments of grants receivable are applied to the specific invoices identified on the remittance advice, or if unspecified, to the earliest unpaid invoices.

Management considers all accounts over 30 days to be past due and provides an allowance for doubtful accounts based upon prior experience and management's assessment of the collectability of specific accounts. Doubtful accounts are periodically reviewed for collectability and charged against operations when management determines that all collection efforts have been exhausted. As of December 31, 2020 and 2019, receivable balances are considered fully collectable by management; therefore, no allowance for doubtful accounts has been provided.

Promises to give:

Unconditional promises to give are recognized as support at their estimated net realizable value in the period received. Promises to give that are collectable over future periods are discounted to their net present value. The provision for uncollectable promises to give is based on management's estimate of current economic factors, applied as a percentage of gross contribution revenues. Promises to give are periodically reviewed for collectability and written off when determined uncollectable. At December 31, 2020 and 2019, promises to give are considered fully collectable, therefore, no allowance for uncollectable pledges has been provided.

Property and equipment:

Property and equipment are stated at cost except for donated equipment, which is recorded at its fair market value at the date of gift. Property and equipment with a value of greater than or equal to \$5,000 and a useful life of more than one year is capitalized. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets.

Buildings and improvements	5 - 40 years
Equipment and computers	3 - 30 years
Furniture and fixtures	5 - 10 years
Vehicles	5 - 10 years



## LOWELL OBSERVATORY

### NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)

#### YEARS ENDED DECEMBER 31, 2020 AND 2019

1. Description of organization and summary of significant accounting policies (continued):

Impairment of long-lived assets:

The Organization reviews long-lived assets to be held and used for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. If the sum of the undiscounted expected future cash flows over the remaining useful life of the long-lived assets is less than the carrying amount, the asset is considered impaired. Impairment losses would be measured as the amount by which the carrying amount exceeds the fair value of the asset. There was no impairment of long-lived assets recognized for 2020.

Collection item:

The Organization has ownership of a vintage car, which was donated to the Observatory by the Sole Trustee in 2002. The vehicle is capitalized based on its appraised value at the date of the unrestricted contribution.

Endowments:

The Organization's endowments consist of funds established under either donor restriction or as designated by the Trustees for a variety of purposes. As required by GAAP, net assets associated with endowment funds (including funds designated by the Trustees to function as endowments) are classified and reported based on the existence or absence of donor-imposed restrictions.

The Trustees of the Foundation have interpreted Arizona's Management of Charitable Funds Act (AMCFA), Arizona's enacted legislation of the Uniform Prudent Management of Institutional Funds Act (UPMIFA), as requiring the preservation of the fair value of the original gift, as of the gift date of the donor-restricted endowment funds, unless there are explicit donor stipulations to the contrary. As a result of this interpretation, the Organization retains in perpetuity (a) the original value of initial and subsequent gift amounts donated to the endowment and (b) any accumulations to the endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added. Donor-restricted amounts not retained in perpetuity are subject to appropriation for expenditure by the Organization in a manner consistent with the standard of prudence prescribed by AMCFA and UPMIFA.

Program expense allocations:

The Organization's expenses are classified into functional expenses, which include program services and supporting services.

## LOWELL OBSERVATORY

### NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)

#### YEARS ENDED DECEMBER 31, 2020 AND 2019

1. Description of organization and summary of significant accounting policies (continued):

Program expense allocations (continued):

Program services are comprised of the following functional categories: research, technology, and public programs. Research encompasses all expenses to conduct research in all areas of astronomy, including studies of the sun, solar system, stars, exoplanets, galaxies and cosmology. This includes outlays related to contracts with governmental and other agencies. Technology includes the cost of servicing, maintaining and developing the telescopes, and the facilities and instruments used for research operations. It also integrates expenses related to telescope access fees. Public programs category is comprised of expenses to operate the education and outreach program provided to the general public, which includes tours, solar viewing, presentations, telescope viewing and camps.

Supporting services are comprised of the following functional categories: management and general and fundraising. Management and general provides the administrative support for the Organization. Fundraising incorporates costs associated with donor development, communications, compliance and generating donations for the Organization.

The combined financial statements report certain categories of expenses that are attributable to one or more program or supporting services of the Organization. Those expenses include depreciation, the Director's office, communications department, and information technology department. Depreciation is allocated based on a square footage basis, the Director's office is allocated based on a time and cost study of where efforts are made, certain costs of the communications department are allocated based on the benefit received, and the information technology department is allocated based on a cost study of specific technology utilized and the benefit received.

Advertising:

Advertising costs are expensed as incurred. Total advertising expense was \$128,466 and \$220,402 for 2020 and 2019.

Income taxes:

The Observatory, the Foundation, and the Trust are exempt from income taxes under both Internal Revenue Code (IRC) section 501(c)(3) and Arizona income tax laws. The Observatory is classified as other than a private 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 (UBTI).

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.

**LOWELL OBSERVATORY**

**NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)**

**YEARS ENDED DECEMBER 31, 2020 AND 2019**

1. Description of organization and summary of significant accounting policies (continued):

Subsequent events:

The Organization's management has evaluated the events that have occurred subsequent to December 31, 2020 through April 22, 2021, the date that the combined financial statements were available to be issued.

2. Liquidity and availability of financial assets:

As part of the Organization's liquidity management, it has a policy to structure its financial assets to be available as its general expenditures, liabilities and other obligations come due. In addition, the Organization invests cash in excess of daily requirements in short-term investments. To help manage unanticipated liquidity needs, the Organization has also committed a line of credit in the amount of \$8.16 million, which it could draw upon. At December 31, 2020 the Organization could draw down an additional \$5.96 million.

The following reflects the Organization's financial assets as of the combined statement of financial position date, reduced by the amounts not available for general use within one year of the combined statement of financial position date because of contractual or donor-imposed restrictions.

	<u>2020</u>	<u>2019</u>
Cash and cash equivalents	\$ 474,939	\$ 156,179
Restricted cash and cash equivalents	796,970	790,973
Restricted certificates of deposit	4,808,558	403,582
Investments	24,392,521	22,787,898
Grants receivable	572,103	319,429
Promises to give	<u>14,572,835</u>	<u>13,177,654</u>
Total financial assets	<u>45,617,926</u>	<u>37,635,715</u>
Promises to give scheduled to be collected in more than one year	(11,421,025)	(10,389,449)
Contractual or donor-imposed restrictions:		
Endowment funds	(6,649,798)	(5,912,722)
Other donor restrictions	(10,436,899)	(3,753,399)
Restricted certificates of deposit	(4,808,558)	(403,582)
Funds restricted by lender as collateral	(2,200,971)	(2,595,000)
Restricted cash and cash equivalents	(796,970)	(790,973)
Board designations:		
Endowment funds	<u>(2,082,801)</u>	<u>-</u>
Financial assets available to meet cash needs for general expenditures within one year	<u>\$ 7,220,904</u>	<u>\$ 13,790,590</u>

**LOWELL OBSERVATORY**

**NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)**

**YEARS ENDED DECEMBER 31, 2020 AND 2019**

3. Investments:

	2020	2019
Money market funds	\$ 1,679,107	\$ 3,043,053
Fixed income securities	3,929,288	5,490,788
Equity securities	17,874,623	13,826,359
Alternative investments	909,503	427,698
	24,392,521	22,787,898
Less investments with donor restrictions	22,220,045	22,787,049
	\$ 2,172,476	\$ 849

Investment income for the years ended December 31, 2020 and 2019 is as follows:

	2020	2019
Interest and dividends	\$ 414,570	\$ 578,332
Net realized and unrealized gain on investments	2,986,268	3,546,205
Investment fees	(116,632)	(111,059)
	\$ 3,284,206	\$ 4,013,478

4. Fair value measurements:

At December 31, 2020, the fair value of assets measured on a recurring basis is as follows:

	Fair value	Level 1	Practical expedient
Money market funds	\$ 1,679,107	\$ 1,679,107	\$ -
Fixed income securities	3,929,288	3,929,288	-
Equity securities:			
US large cap	11,553,203	11,553,203	-
US mid cap	1,763,059	1,763,059	-
US small cap	1,157,868	1,157,868	-
Developed international	1,606,444	1,606,444	-
Other	1,794,049	1,794,049	-
Alternative investments	909,503	-	909,503
	\$ 24,392,521	\$ 23,483,018	\$ 909,503

**LOWELL OBSERVATORY**

**NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)**

**YEARS ENDED DECEMBER 31, 2020 AND 2019**

4. Fair value measurements (continued):

At December 31, 2019, the fair value of assets measured on a recurring basis is as follows:

	Fair value	Level 1	Practical expedient
Money market funds	\$ 3,043,053	\$ 3,043,053	\$ -
Fixed income securities	5,490,788	5,490,788	-
Equity securities:			
US large cap	8,733,765	8,733,765	-
US mid cap	1,293,160	1,293,160	-
US small cap	676,298	676,298	-
Developed international	2,182,494	2,182,494	-
Other	940,642	940,642	-
Alternative investments	427,698	-	427,698
	\$ 22,787,898	\$ 22,360,200	\$ 427,698

The assets in the preceding tables were measured primarily using the market approach. Following is a description of the valuation methodologies used for assets measured at fair value. The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Transfers between levels are recorded at the beginning of the reporting period in which they occur. Valuation techniques used maximize the use of observable inputs and minimize the use of unobservable inputs:

Level 1 - Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.

Practical Expedient - Investments for which fair value is measured at net asset value per share (or its equivalent). Due to the inherent uncertainty of these estimates, these values may differ materially from the values that would have been used had a ready market for these investments existed.

The fair value of the Organization's investments are valued at the closing price reported on the active market on which the individual securities are traded except for the alternative investments. The Organization's alternative investments are valued based on their net asset value using the practical expedient. The alternative investments consist primarily of offshore investment funds that provide investment exposure to global equity, bond, currency and commodity markets and fixed-income securities, without quoted prices. The funds may invest in instruments that provide economic exposure to developed and emerging market issuers. These investments have restrictions on redemptions consisting of lock up periods of up to 65 days. No unfunded commitments exist related to these investments.

**LOWELL OBSERVATORY**

**NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)**

**YEARS ENDED DECEMBER 31, 2020 AND 2019**

5. Property and equipment:

	2020	2019
Land	\$ 445,917	\$ 1,253,088
Buildings and improvements	27,499,997	27,716,508
Equipment and computers	41,824,011	38,712,390
Furniture and fixtures	638,448	653,381
Vehicles	356,553	465,815
Construction in progress	2,823,764	3,821,578
	73,588,690	72,622,760
Less accumulated depreciation	25,975,807	24,266,154
	\$ 47,612,883	\$ 48,356,606

6. Note payable, bank:

The Organization has a \$8,160,000 revolving line of credit note (the Note) with BNY. The Note calls for monthly interest only payments at the monthly LIBOR rate (0.15% and 1.70% at December 31, 2020 and 2019) with a floor of 0.90% and matures in March 2023. The Note is collateralized by investment assets of the Organization. The Organization had an outstanding balance of \$2,200,971 and \$2,595,000 related to this line of credit at December 31, 2020 and 2019.

The Organization is required to be in compliance with certain non-financial covenants.

7. Long-term debt:

	2020	2019
Note payable, Small Business Administration, interest at 2.75%, payable in aggregate monthly installments of \$642 beginning May 2021 through May 2050, collateralized by all assets of the Company. Installment payments are first applied to accrued interest until May 2022. Starting with June 2022, the installment payments will apply to principal and interest.	\$ 150,000	\$ -

LOWELL OBSERVATORY

NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)

YEARS ENDED DECEMBER 31, 2020 AND 2019

7. Long-term debt (continued):

Future maturities of long-term debt are as follows:

Year ending <u>December 31,</u>	
2021	\$ -
2022	2,092
2023	3,682
2024	3,785
2025	3,890
Thereafter	<u>136,551</u>
	<u>\$ 150,000</u>

8. Paycheck Protection Program (PPP) loan:

In May 2020, the Organization was granted an unsecured PPP loan from Western Alliance Bank Lending in the amount of \$1,413,200, pursuant to the CARES Act and the PPP Flexibility Act (the Acts). The loan bears interest at a rate of 1%. The Acts defer repayment of principal and interest to the earlier of the date of loan forgiveness or ten months after the last day of the chosen covered period. Under the terms of the PPP, certain amounts of the loan may be forgiven if they are used for covered expenses as described in the Acts. The Organization plans to use the entire loan amount for covered expenses. Under the PPP program, the Small Business Administration may undertake an audit of a loan of any size. The audit will include the loan forgiveness application as well as whether the Organization met the eligibility requirements of the program and received the proper loan amount. The Organization applied for forgiveness with the lender on November 23, 2020 and received forgiveness of \$1,413,200 from the Small Business Administration (SBA) on December 31, 2020. The amount of loan forgiveness is presented as a contribution on the statement of activities.

The Organization accounts for the PPP loan as a conditional contribution in accordance with ASC 958-605. The contribution is conditional based on the Organization incurring covered expenses, maintaining employee count, and limiting salary reductions. During the year ended December 31, 2020, \$1,413,200 was recognized as support based on the assessment of conditions that have been met.

**LOWELL OBSERVATORY**

**NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)**

**YEARS ENDED DECEMBER 31, 2020 AND 2019**

9. Deferred access fee revenue:

The Organization has entered into a series of agreements to provide several educational institutions access to its telescopes. Under the terms of the agreements, the institutions are required to provide prescribed levels of financial support in exchange for nights of telescope use. Deferred access fee revenue represents amounts received from the institutions for nights not yet provided. At December 31, 2020 and 2019 deferred access fee revenue totaled \$7,409,621 and \$7,470,403.

10. Net assets with donor restrictions:

Net assets with donor restrictions are restricted for the following purposes or periods.

	2020	2019
Subject to expenditure for specified purpose:		
Improvements and maintenance	\$ 20,936,758	\$ 15,546,206
Marketing	25,000	-
Exhibits, education and outreach, and other public programs	337,413	198,185
Research	558,754	570,358
Funds held in Trust U/W of Percival Lowell to be used for Observatory purposes	27,582,911	25,084,617
	49,440,836	41,399,366
Endowments:		
Earnings are subject to appropriation and expenditure for specified purposes:		
Endowment fund	35,909	22,810
ADC endowment fund	10,921	-
Exploration fund, subject to reversionary agreement	75,260	71,724
Exploration fund, not subject to reversionary agreement	1,843,785	1,771,110
Giovale endowed fund for astronomical research	555,355	538,784
GODO endowment fund	73,047	-
Historic preservation fund, subject to reversionary agreement	1,125	1,051
Historic preservation fund, not subject to reversionary agreement	48,314	45,131
Inspiration fund, subject to reversionary agreement	2,161	-
Inspiration fund, not subject to reversionary agreement	4,742	-
Instrumentation fund, subject to reversionary agreement	738,852	713,068
Instrumentation fund, not subject to reversionary agreement	1,784	1,720
Marcus cometary research fund	366,557	349,799
Mars Hill fund, not subject to reversionary agreement	70,970	58,610
Millenium fund, subject to reversionary agreement	2,191,168	2,125,942



**LOWELL OBSERVATORY**

**NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)**

**YEARS ENDED DECEMBER 31, 2020 AND 2019**

10. Net assets with donor restrictions (continued):

	<u>2020</u>	<u>2019</u>
Endowments (continued):		
Subject to appropriation and expenditure when a specified event occurs (continued):		
Native American astronomy outreach fund, not subject to reversionary agreement	\$ 410,312	\$ -
Waddell fund, not subject to reversionary agreement	107,674	104,479
Young scholar fund	111,862	108,494
Total endowments	6,649,798	5,912,722
	<u>\$ 56,090,634</u>	<u>\$ 47,312,088</u>

11. Endowments:

The Organization's endowment consists of the Millennium Fund and thirteen other perpetually restricted funds. Investment earnings related to the endowed assets are restricted for prescribed operating purposes.

Reversionary agreement governing the Millennium Fund:

In 2000, the Lowell Millennium Fund (the Fund) was created to be a fund for the benefit of the Observatory. The Fund received both gifts without restrictions and gifts with perpetual restrictions from outside parties. The Observatory, through the Executive Committee of the Lowell Observatory Advisory Board, determined that it would consider all of the Fund as an endowment fund and began to administer it in that manner. When the Foundation was created, the Executive Committee contributed the Fund to the Foundation, but retained the right to compel its return in the future at the discretion of the Executive Committee.

Reversionary agreements relative to certain other Foundation endowment funds:

Since the creation of the Foundation, the Observatory has been the recipient of other gifts that were received without donor restrictions, which it then, subsequently, donated to the Foundation with restrictions consistent with the requirements and stipulations of certain of the Foundation's endowment funds. By agreement between the Observatory and the Foundation, the Observatory can, at any time, compel the return of these funds to the Observatory by written request.

In both cases, because the assets held by the Foundation are restricted by the terms of their contribution to the Foundation as only having the income available to benefit the Observatory, they are all recorded as perpetually restricted. At December 31, 2020 and 2019 these funds comprised 45% and 49% of the Foundation's perpetually restricted net assets.

**LOWELL OBSERVATORY**

**NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)**

**YEARS ENDED DECEMBER 31, 2020 AND 2019**

11. Endowments (continued):

Changes in endowment net assets for the year ended December 31, 2020 are as follows:

	Without donor restrictions	With donor restrictions	Total
Endowment net assets, beginning	\$ -	\$ 5,912,722	\$ 5,912,722
Investment return, net fees	252,198	508,323	760,521
Contributions	1,830,603	447,993	2,278,596
Distributions	-	(219,240)	(219,240)
	<u>\$ 2,082,801</u>	<u>\$ 6,649,798</u>	<u>\$ 8,732,599</u>

Changes in endowment net assets for the year ended December 31, 2019 are as follows:

	Without donor restrictions	With donor restrictions	Total
Endowment net assets, beginning	\$ -	\$ 5,064,600	\$ 5,064,600
Investment loss, net fees	-	983,515	983,515
Contributions	-	65,031	65,031
Distributions	-	(200,424)	(200,424)
Endowment net assets, ending	<u>\$ -</u>	<u>\$ 5,912,722</u>	<u>\$ 5,912,722</u>

Funds with deficiencies:

From time to time, certain donor-restricted endowment funds may have fair values less than the amount required to be maintained by donors or by law (underwater endowments). We have interpreted UPMIFA to permit spending from underwater endowments in accordance with prudent measures required under law. As of December 31, 2020 and 2019, there were no deficiencies of this nature.

Return objectives and risk parameters:

The Organization has adopted investment policies including those for endowment assets that attempt to preserve the capital, preserve the purchasing power, and achieve long-term growth of capital of the endowment assets. Endowment assets include those assets of donor-restricted funds that the organization must hold in perpetuity or for a donor-specified period(s). Under these policies all assets including endowment assets are invested in a manner that is intended to produce results that exceed various external benchmarks while assuming a moderate level of investment risk. Actual returns in any given year may vary from this amount.

Spending policy and how the investment objectives relate to spending policy:

## LOWELL OBSERVATORY

### NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)

#### YEARS ENDED DECEMBER 31, 2020 AND 2019

11. Endowments (continued):

Spending policy and how the investment objectives relate to spending policy (continued):

The Trust and Foundation have spending policies in place whereby amounts are appropriated based on determination of certain criteria to include the preservation of the endowment corpus, consideration of economic conditions, effects of inflation and deflation and the expected return from income and appreciation of investments.

The spending policy over the Trust endowments utilizes a total return approach.

The spending policy over the Foundation endowments also utilizes a total return approach, but provides for appropriations (currently a 4% rate annually) which may be made regardless of whether an Endowment Fund has sufficient current period and/or accumulated net investment returns but after taking into consideration the criteria specified above.

12. Retirement plans:

The Organization has a contributory 403(b) retirement plan historically held at Teachers' Insurance and Annuity Association. The last contributions sent to TIAA were in December 2016. Beginning in December 2016, new contributions were sent to Mutual of America. In 2017, the plan documents were changed and eligible employees may voluntarily participate in the plan. As of July 2020, the Observatory contributes 1%-5% of gross earnings, up to the Internal Revenue Service maximum allowable, when the employee contributes 1%-5% of gross earnings. Previously, the Observatory's matching contribution was a set 5% when the employee contributes at least 5%. The Organization made contributions of \$316,900 and \$300,380 to the plan during the years ended December 31, 2020 and 2019.

13. Contingency:

For the years ended December 31, 2020 and 2019, substantially all of the Organization's grant revenue and receivables are comprised of revenue derived from federal agencies. A significant reduction in the level of this support, if it were to occur, would have a material effect on the programs and activities of the Organization. The governmental funding is subject to compliance audits by the respective governmental agencies. Assessments from such audits, if any, are recorded when the amounts of such assessments are reasonably determinable.

**LOWELL OBSERVATORY**

**NOTES TO COMBINED FINANCIAL STATEMENTS (CONTINUED)**

**YEARS ENDED DECEMBER 31, 2020 AND 2019**

14. Statement of cash flows:

Supplemental disclosure of cash flow information:

Cash paid for interest was \$72,177 and \$84,124 for the years ended December 31, 2020 and 2019.

15. Pending pronouncement:

In February 2016, the FASB issued ASU 2016-02 "Leases." ASU 2016-02 requires a lessee to recognize in the statement of financial position a liability to make lease payments and a right-of-use asset representing its right to use the underlying asset for the lease term, along with additional qualitative and quantitative disclosures. ASU 2016-02 is effective for reporting periods beginning after December 15, 2021, with early adoption permitted. Management is currently evaluating the effect that this standard will have on the combined financial statements.

**LOWELL OBSERVATORY**

**COMBINING STATEMENT OF FINANCIAL POSITION**

**DECEMBER 31, 2020**

<b>ASSETS</b>				
	Lowell Observatory and Trust	Lowell Observatory Foundation	Eliminating	Combined total
<b>Current assets:</b>				
Cash and cash equivalents	\$ 421,749	\$ 53,190	\$ -	\$ 474,939
Restricted cash and cash equivalents	588,174	208,796	-	796,970
Restricted certificates of deposit	4,808,558	-	-	4,808,558
Investments	89,675	2,082,801	-	2,172,476
Grants receivable	572,103	-	-	572,103
Promises to give, current portion	2,901,660	250,150	-	3,151,810
Other current assets	594,547	1,800	-	596,347
Total current assets	9,976,466	2,596,737	-	12,573,203
Property and equipment, net	47,612,883	-	-	47,612,883
Due from related party	104,054	-	(104,054)	-
Promises to give, net of current portion	11,123,172	297,853	-	11,421,025
Collection item	400,000	-	-	400,000
<b>Assets limited to use:</b>				
Investments with donor restrictions	15,435,216	6,784,829	-	22,220,045
Total noncurrent assets	74,675,325	7,082,682	(104,054)	81,653,953
Total assets	\$ 84,651,791	\$ 9,679,419	\$ (104,054)	\$ 94,227,156

<b>LIABILITIES AND NET ASSETS</b>				
<b>Current liabilities:</b>				
Accounts payable	\$ 241,901	\$ -	\$ -	\$ 241,901
Accrued expenses and other current liabilities	110,455	-	-	110,455
Due to related party	-	104,054	(104,054)	-
Total current liabilities	352,356	104,054	(104,054)	352,356
Note payable, bank	2,200,971	-	-	2,200,971
Long-term debt	150,000	-	-	150,000
Deferred research grant revenue	45,908	-	-	45,908
Deferred access fee revenue	7,409,621	-	-	7,409,621
Total liabilities	10,158,856	104,054	(104,054)	10,158,856
<b>Contingencies</b>				
<b>Net assets:</b>				
Without donor restrictions:				
Net invested in property and equipment	45,261,912	-	-	45,261,912
Undesignated	(19,331,188)	(35,859)	-	(19,367,047)
Board designated	-	2,082,801	-	2,082,801
Total	25,930,724	2,046,942	-	27,977,666
With donor restrictions	48,562,211	7,528,423	-	56,090,634
Total net assets	74,492,935	9,575,365	-	84,068,300
Total liabilities and net assets	\$ 84,651,791	\$ 9,679,419	\$ (104,054)	\$ 94,227,156

**LOWELL OBSERVATORY**

**COMBINING STATEMENT OF ACTIVITIES**

**YEAR ENDED DECEMBER 31, 2020**

	Lowell Observatory and Trust	Lowell Observatory Foundation	Eliminating	Combined total
Revenues, support and gains:				
Contracts with governmental and other agencies	\$ 3,195,523	\$ -	\$ -	\$ 3,195,523
Telescope access fees	2,350,197	-	-	2,350,197
Contributions	9,866,596	2,114,267	-	11,980,863
Public program revenue	455,745	-	-	455,745
Investment income, net	2,513,312	770,894	-	3,284,206
Other income	114,301	-	-	114,301
Gain on sale of assets	1,642	-	-	1,642
	18,497,316	2,885,161	-	21,382,477
Expenses:				
Program services:				
Research	4,245,414	-	-	4,245,414
Technology	3,971,357	-	-	3,971,357
Public programs	2,772,183	-	-	2,772,183
	10,988,954	-	-	10,988,954
Support services:				
Management and general	1,288,331	5,570	-	1,293,901
Fundraising	1,217,903	9,527	-	1,227,430
	2,506,234	15,097	-	2,521,331
	13,495,188	15,097	-	13,510,285
Change in net assets	\$ 5,002,128	\$ 2,870,064	\$ -	\$ 7,872,192

**LOWELL OBSERVATORY**  
**SINGLE AUDIT REPORTS**  
**YEAR ENDED DECEMBER 31, 2020**

**LOWELL OBSERVATORY**  
**SINGLE AUDIT REPORTS**  
**YEAR ENDED DECEMBER 31, 2020**

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**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL  
OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS  
BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED  
IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS***

Sole Trustee and Management  
Lowell Observatory  
Flagstaff, Arizona

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the combined financial statements of Lowell Observatory (the Organization) which comprise the combined statement of financial position as of December 31, 2020, and the related combined statements of activities, functional expenses, and cash flows for the year then ended, and the related notes to the combined financial statements, and have issued our report thereon dated April 22, 2021.

#### **Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the Organization's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the combined financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Organization's internal control. Accordingly, we do not express an opinion on the effectiveness of the Organization's internal control.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. *A material weakness* is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Organization's combined financial statements will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of the internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

#### **Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the Organization's combined financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, noncompliance with which could have a direct and material effect on the determination of combined financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

**Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Organization's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Organization's internal control and compliance. Accordingly this communication is not suitable for any other purpose.

A handwritten signature in black ink that reads "Beach Fleischman PC". The signature is written in a cursive, flowing style.

Phoenix, Arizona  
April 22, 2021

**INDEPENDENT AUDITORS' REPORT ON COMPLIANCE FOR EACH MAJOR PROGRAM,  
ON INTERNAL CONTROL OVER COMPLIANCE, AND ON THE SCHEDULE OF EXPENDITURES  
OF FEDERAL AWARDS REQUIRED BY THE UNIFORM GUIDANCE**

Sole Trustee and Management  
Lowell Observatory  
Flagstaff, Arizona

**Report on Compliance for Each Major Federal Program**

We have audited Lowell Observatory's (the Organization) compliance with the types of compliance requirements described in the *OMB Compliance Supplement* that could have a direct and material effect on each of the Organization's major federal programs for the year ended December 31, 2020. The Organization's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

**Management's Responsibility**

Management is responsible for compliance with federal statutes, regulations, and the terms and conditions of its federal awards applicable to its federal programs.

**Auditors' Responsibility**

Our responsibility is to express an opinion on compliance for each of the Organization's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of *Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the Organization's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the Organization's compliance.

**Opinion on Each Major Federal Program**

In our opinion, the Organization complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended December 31, 2020.

## **Report on Internal Control Over Compliance**

Management of the Organization is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the Organization's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the Organization's internal control over compliance.

*A deficiency in internal control over compliance* exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

## **Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance**

We have audited the combined financial statements of the Organization as of and for the year ended December 31, 2020, and have issued our report thereon dated April 22, 2021, which contained an unmodified opinion on those combined financial statements. Our audit was conducted for the purpose of forming an opinion on the combined financial statements as a whole. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the combined financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the combined financial statements. The information has been subjected to the auditing procedures applied in the audit of the combined financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the combined financial statements or to the combined financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated in all material respects in relation to the combined financial statements as a whole.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

*Beach Fleischman PC*

Phoenix, Arizona  
April 22, 2021

**LOWELL OBSERVATORY**

**SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS**

**YEAR ENDED DECEMBER 31, 2020**

<u>Federal Grant/Pass-Through Grantor/ Program or Cluster Title</u>	<u>Grant number</u>	<u>Pass-through entity identifying number</u>	<u>Federal CFDA number</u>	<u>Passed through to subrecipients</u>	<u>Federal expenditures</u>
Research and Development - Cluster					
<u>National Aeronautics and Space Administration</u>					
Science:					
Direct awards:					
NASA Headquarters	81094	80NSSC18K0856	43.001	\$ 872	\$ 199,446
NASA Headquarters	81105	80NSSC19K0556	43.001	98,176	110,626
NASA Headquarters	81130	80NSSC19K0289	43.001	42,818	128,131
NASA Headquarters	81210	NNX16AQ02G	43.001	49,735	50,680
NASA Headquarters	81310	80NSSC18K0987	43.001	13,028	8,595
NASA Headquarters	81320	80NSSC18K1687	43.001	-	26,321
NASA Headquarters	81325	80NSSC20K1001	43.001	16,469	71,130
NASA Headquarters	81405	NNX17AF13G	43.001	-	13,721
NASA Headquarters	81420	80NSSC18K0729	43.001	75,083	170,518
NASA Headquarters	81490	NNX16AJ51G	43.001	19,807	52,252
NASA Headquarters	81495	80NSSC18K0203	43.001	63,955	94,237
NASA Headquarters	81502	NNX17AH06G	43.001	80,865	173,374
NASA Headquarters	81505	NNX16AG52G	43.001	-	43,967
NASA Headquarters	81506	80NSSC19K0420	43.001	-	114,173
NASA Headquarters	81509	NNX16AK68G	43.001	-	25,828
NASA Headquarters	81520	NNX15AJ82G	43.001	16,008	16,008
NASA Headquarters	81530	80NSSC19K01586	43.001	-	1,710
Goddard Space Flight Center	81609	80GSFC20C0018	43.001	-	53,862
				<u>476,816</u>	<u>1,354,579</u>
Total direct NASA					
Pass-through awards:					
NASA JPL/CalTech	82202	RSA 1634072	43.001	-	10,134
NASA JPL/CalTech	82415	RSA 1610345	43.001	-	1,622
NASA JPL/CalTech	82806	RSA 1620446	43.001	-	4,858
NASA JPL/CalTech	82807	RSA 1633811	43.001	-	3,505
Space Telescope Science Institute	73706	HST-GO-14707.001-A	43.001	-	13,194
Space Telescope Science Institute	73819	HST-GO-13667.007-A	43.001	-	18,333
Space Telescope Science Institute	73821	HST-GO-14928.004-A	43.001	-	11,811
Space Telescope Science Institute	73822	HST-GO-15207.005-A	43.001	-	9,865
Space Telescope Science Institute	73823	HST-GO-15233.001-A	43.001	-	3,504
Space Telescope Science Institute	73824	HST-GO-15143.003-A	43.001	-	9,959
Space Telescope Science Institute	73825	HST-GO-15144.004-A	43.001	-	1,757
Space Telescope Science Institute	73827	HST-GO-15648.003-A	43.001	-	1,332
Space Telescope Science Institute	73865	HST-GO-13777.003-A	43.001	-	3,544
Space Telescope Science Institute	73866	HST-GO-15170.002-A	43.001	-	1,952
Boston University	78310	4500002707	43.001	-	11,032
Johns Hopkins Applied Physics Lab	78502	#128572	43.001	-	4,593
Johns Hopkins Applied Physics Lab	78505	#162333	43.001	-	19,123
Southwest Research Institute	78415	#K99090JRG	43.001	-	783
Southwest Research Institute	78420	#K99058JRG	43.001	-	5,997
Southwest Research Institute	78425	#K99038MEC	43.001	-	7,080
Southwest Research Institute	78426	M99055DS	43.001	-	3,789
Southwest Research Institute	78431	#278981Q	43.001	-	69,182
Planetary Science Institute	78440	#1374	43.001	-	28,089

See accompanying notes to schedule of expenditures of federal awards

**LOWELL OBSERVATORY**

**SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS (CONTINUED)**

**YEAR ENDED DECEMBER 31, 2020**

<u>Federal Grant/Pass-Through Grantor/ Program or Cluster Title</u>	<u>Grant number</u>	<u>Pass-through entity identifying number</u>	<u>Federal CFDA number</u>	<u>Passed through to subrecipients</u>	<u>Federal expenditures</u>
Research and Development - Cluster (continued)					
<u>National Aeronautics and Space Administration</u>					
Science:					
Pass-through awards (continued):					
Planetary Science Institute	78445	#1437	43.001	\$ -	\$ 5,761
Made in Space, Inc.	78460	C1001.21L	43.001	-	<u>52,353</u>
Total pass-through NASA				<u>-</u>	<u>303,152</u>
Total - NASA				<u>476,816</u>	<u>1,657,731</u>
<u>National Science Foundation</u>					
Mathematical and Physical Sciences:					
Direct awards:					
National Science Foundation	83005	AST-1907492	47.049	28,366	100,526
National Science Foundation	83012	AST-2025202	47.049	-	57,229
National Science Foundation	83020	AST-1944827	47.049	55,434	145,528
National Science Foundation	83050	AST-1734484	47.049	-	38,173
National Science Foundation	83070	AST-2009343	47.049	-	30,828
National Science Foundation	83075	AST-2009501	47.049	-	9,789
National Science Foundation	83090	AST-1616084	47.049	9,827	75,447
National Science Foundation	83116	AST-1612874	47.049	-	<u>24,182</u>
Total direct National Science Foundation				<u>93,627</u>	<u>481,702</u>
Pass-through awards:					
Southwest Research Institute	78435	#H99010HP	47.049	-	<u>7,090</u>
Total pass-through National Science Foundation				<u>-</u>	<u>7,090</u>
Total National Science Foundation				<u>93,627</u>	<u>488,792</u>
<u>Department of Defense</u>					
Basic and Applied Scientific Research:					
Direct awards:					
Naval Research Laboratory	75115, 75120, 75125	N00173-16-2-C904	12.300	-	<u>919,002</u>
Total Department of Defense				<u>-</u>	<u>919,002</u>
Total Research and Development - Cluster				<u>570,443</u>	<u>3,065,525</u>
Total expenditures of federal awards				<u>\$ 570,443</u>	<u>\$ 3,065,525</u>

## LOWELL OBSERVATORY

### NOTES TO SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

YEAR ENDED DECEMBER 31, 2020

1. Basis of presentation:

The accompanying Schedule of Expenditures of Federal Awards (the Schedule) includes the federal award activity of Lowell Observatory (the Organization) under programs of the federal government for the year ended December 31, 2020. The information in this Schedule is presented in accordance with the requirements of *Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance)*. Because the Schedule presents only a selected portion of the operations of Lowell Observatory, it is not intended to and does not present the combined financial position, changes in net assets or cash flows of the Organization.

2. Summary of significant accounting policies:

Expenditures reported on the Schedule are reported on the accrual basis of accounting. Such expenditures are recognized following the cost principles contained in the Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement.

The Organization has not elected to use the ten percent de minimis indirect cost rate as allowed under the Uniform Guidance.

3. Catalog of Federal Domestic Assistance (CFDA) Numbers:

The program titles and CFDA numbers or federal identification numbers were obtained from the federal or pass-through grantor or the update to the *2020 Catalog of Federal Domestic Assistance*.

LOWELL OBSERVATORY

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

YEAR ENDED DECEMBER 31, 2020

SUMMARY OF AUDITORS' RESULTS

*Financial Statements*

The auditors' report expressed an unmodified opinion on whether the combined financial statements of Lowell Observatory were prepared in accordance with accounting principles generally accepted in the United States of America.

Internal control over financial reporting:

Material weakness(es) identified?  Yes  No  
Significant deficiency(ies) identified?  Yes  None reported

Noncompliance material to financial statements noted?  Yes  No

*Federal Awards*

Internal control over major federal programs:

Material weakness(es) identified?  Yes  No  
Significant deficiency(ies) identified?  Yes  None reported

The auditors' report on compliance for the major federal awards program of Lowell Observatory expressed an unmodified opinion on its major programs.

Audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a):

Yes  No

Identification of major federal programs:

Research and Development Cluster:  
Science CFDA 43.001  
Mathematical and Physical Sciences CFDA 47.049  
Basic and Applied Scientific Research CFDA 12.300

Dollar threshold used to distinguish between Type A and Type B programs: \$750,000

Auditee qualified as a low-risk auditee?  Yes  No



**LOWELL OBSERVATORY**

**SCHEDULE OF FINDINGS AND QUESTIONED COSTS (CONTINUED)**

**YEAR ENDED DECEMBER 31, 2020**

**FINDINGS - FINANCIAL STATEMENT AUDIT**

None

**LOWELL OBSERVATORY**

**SCHEDULE OF FINDINGS AND QUESTIONED COSTS (CONTINUED)**

**YEAR ENDED DECEMBER 31, 2020**

**FINDINGS AND QUESTIONED COSTS - MAJOR FEDERAL AWARD PROGRAMS AUDIT**

None

**LOWELL OBSERVATORY**  
**SUMMARY SCHEDULE OF PRIOR YEAR FINDINGS**  
**YEAR ENDED DECEMBER 31, 2020**

None