ANNUAL REPORT OF THE DIRECTOR OF THE AAVSO FOR THE YEAR ENDING SEPTEMBER 30, 1961

I consider it a very great privilege to present the annual Report of the work of the Association for this, our 50th Anniversary Year. It is a time when we should honor all those who have gone before us, and who laid such secure foundations for our association. We can all take great pride in their accomplishments. Much will be said at this meeting, of our history over the first 50 years, and we all look forward to greater things for the next 50.

FINANCES. The National Science Foundation was kind enough once again this spring, to give us a 2-year grant, to cover some of our basic expenses for operating headquarters, and collecting and preparing for publication observations of variable stars. Their support of our work is very much appreciated. We are also glad to acknowledge the financial support of the National Bureau of Standards for the work of our Solar Division.

You will hear others report on the growth of our Endowment Fund. The Fund Committee is to be highly congratulated on their excellent management of the Fund. Our holdings of International Business Machine stock have continued to grow through the generosity of our good President-Secretary, and of an anonymous friend.

The purchase of new books through the AAVSO has added several hundred dollars to the Fund, and appears to be a very profitable thing to handle, requiring very little time on our part.

REQUESTS FOR INFORMATION. During the year we received about 600 requests for information about variable stars and the work of the AAVSO. We have a kit of mimeographed sheets we send in answer to these letters. If the inquirer has a telescope, and sounds like a good prospective observer, we send a copy of the instruction Manual, which contains some practice charts.

MEMBERSHIP. In Detober 1960 we elected 24 new members, and in May 1961 we elected 36, a record number of applicants, we are very sorry to have had to drop a number of our members for mon-payment of dues; we hate to do this, and usually carry the delinquent member for a longeratime than necessary, occupied the second of the second second of the second second

Our dues are kept very low; in comparison with most societies today, but we want to make membership within reach of every one. We hope that more Annual members will change to Sustaining which is the source of much needed funds to carry on the work of the Association; to cover some of our basic expensus for operating headquartees, and collection and propering for publication observations of variable stark.

During the year the AAVSO suffered a very great loss of 4 of our members: Dr. Paul W. Merritt; the Honorary Chairman of our Endowment Fund Committee, and an Honorary member of the Association since 1922, one of our most loyal supporters; Mr. K. Koget-sukan Kasai, of Japan, who became a life member of the association in 1925, and was an active observer over the years; Mrs. Helen Holmes, a member since 1922, and an active observer in the past; and Dr. Anne S. Young, one of our Charter members; and former president; who treasured her association with the AAVSO at her dife, and was always ready to help in any way possible. (Note added in proof: About a week after the annual meeting, we learned to our sorrow, of the death last summer of a sustaining member and active observer, Beaufort S. Ragland, of Richmond; Virginia).

SUBSCRIPTIONS TO PUBLICATIONS. Twenty eight observatories and libraries subscribe to our publications. The Mt. Wilson and Palomar Observatories also continue their sub-

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ng kan kantangan kangan kangan katangan kangan kanga scription to our Special Services, and we are always happy to answer their requests for special information.

NOVA AWARD. The AAVSO Nova Award was presented to Olaf Hassel of Norway for his visual discovery of Nova Herculis 1960. The Award was a beautiful plaque with blue lettering on a stainless steel plate mounted on a clear glass block. It was formally presented to Mr. Hassel at the American Embassy in Oslo on April 7, 1961. This was the 5th Award since it was set up by David B. Pickering in 1928.

LIBRARY. The Charles Y. McAteer Library received nearly 400 publications and reprints during the year, and 19 books. Publishing houses are beginning to send us copies of new astronomy books for review. These are a fine addition to our Library. On a few occasions we have addressed envelopes for publisher's ads for new books, and received copies of books in part payment.

PUBLICATIONS. I am sorry to say, we did not get a Quarterly Report published during the year. We have No. 25 ready for the printer, with the exception of a few pages of proofreading, but due to the shortage of funds, we have not had it printed. No. 25 is being worked on, and could be finished in a few months. It costs around \$300 each to publish the Quarterly Reports. One Bulletin was published during the year: No. 23, 1961 Annual Predictions of Maxima and Minima of Long Period Variables. Two issues of the AAVSO Abstracts were published, containing abstracts and papers presented at the October 1960 and the May 1961 meetings. We also published the Annual Reports of the Director, the Treasurer, and the Endowment Fund. Variable Star Notes appeared in each issue of the Journal of the Royal Astronomical Society of Canada. Solar Bulletins and SEA (Sudden Enhancement of Atmospherics) Reports were published by the Solar Division and sent to interested members. Reports of the Nova Search Division are incorporated in each issue of the Variable Star Notes.

ANNUAL SUMMARY OF OBSERVATIONS. During the year, we received variable star observation reports from 261 observers, exceeding last year's record of 234. The reports contained 57,510 observations from 261 observers in 19 countries. A total of 1067 reports was received, making an average of 89 reports per month.

Our foreign observers, 134 strong, contributed 26,883 observations, about 47% of the total. The USA observers made 30,627, to account for the 53%. Table I gives the breakdown of totals by country, and Table II the breakdown of the USA totals by state.

No. Total Total No. Country Country Observers Obs. **Observers** Obs. Argentina 2 103 Japan 2 1729 Australia 19 1981 4 1 Jugos lavia Brazil 6 426 Mexico 3 3068 Canada 8 934 Portugal 1 111 68 Chile 7541 South Africa 3 7282 England 1 128 So. Rhodesia 1 220 France 1 107 Sweden 1 5 Germany 8 1491 Taiwan 1 322 Hungary 7 357 U.S.A.

1074

Italy

127

261

total

30627

57510

TABLE I - COUNTRIES

Colorado	. 1	222	Michigan	5	1169	0klahoma	1	3
Connecticut	7	1637	Minnesota	1	['] 636	0regon	2	54
Florida	5	738	Mississippi	1	29	Pennsylvania	3	179
Georgia	1	518	Missouri	1	2060	South Carolina	1	21
Illinois	4	646	Montana	2	240	Texas	8	224
Indiana	2	36	New Hampshire	1	144	Virginia	3	198
Louisiana	1	86	New Jersey	3	478	Wash ing ton	2	108
Ma i ne	2	3704	New Mexico	2	244	Wisconsin	14	2269
						total	127	30627

The place of the observer with the greatest number of observations during the year is again taken by Reginald P. de Kock, with 5,858 observations. He was followed by Cyrus F. Fernald with 3,605, and Rodrigo de la Vega was third with 3,415. The totals of most of the observers were considerably smaller this year, due to very bad weather conditions. May and June are usually very good observing months, but in 1961, 72 observers made only 2,592 observations in May (received in June) and 87 observers, 3,300 observations in June (received in July).

Table III lists all the observers in order of their totals. Thirty observers made observations of 13.8 magnitude and fainter, and each is identified by the letter \underline{S} (Inner Sanctum) after his total.

TABLE III - AAVSO OBSERVERS

1960 - 1961 TABLE 10 - UNITED STATES

	1000	1.	UB	HILL	7 31/1/23	
15	Reginald de Kock, So. Africa	5858 3605		24	*Robert Brady, Georgia *\4m flare stars	-518 -599
्रे र	Rødrigo de la Vega, Chile de sans	3415	‡\$	25		river.
ાં કે	- C 新作品の マー・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・				Donald Bradley, New York	514
	Edward Oravec, New York	3022			Werner Braune, Germany	507 S
7	Thomas Cragg, California	2913			Ralph Buckstaff, Wisconsin	491
þ.	pomingo laboada, Mexico	2499			Emilio Anderführen, Chile	428
~~ 7	Leslie Peltier, Ohio	2180	_	29	*R.C. Shinkfield, Australia	416
8	Robert Adams, Missourt	2060			*plus 2h 11m flare stars	2 3 % 3 3 %
9	Ferdinand Hartmann, New York	1747	1.40	30 t	Clinton Ford, Connecticut	402 \$
10	Charles Giffen, Wisconsin	1375	S	31 :	Allen Montague, Illinois	402
11	L.L. van Zyl, So. Africa	1134			William Miller, New Jersey	392
12	C.J. Renner, Michigan	1100			Gabriel Marcovites, Chile	354
13	G.B. Lacchini, Italy	1024		34	Chang-Hsien Tsai, Taiwan	322
14	Jose Pena V., Chile	1043	_	-	Paulo Mourilhe S., Brazil	312
15		1008	4	7.0	Art Gonthier, Mexico	308 s
Turk	*Stephen Burt, Massachusetts	971	Ε,	217, 26		
F .	*6h48m flare stars	6074	110	38	Michiel Overbeek, So. Africa	290 S
17		- 600			Albert Sharpless, Florida	284 S
	Carolyn Hurless, Ohio	958		39	Hector Ayala R., Mexico	261
	David Rosebrugh, Connecticut	820		40	*Frank Kelly, Florida	261
19	Tatsuo Yamada, Japan	721			*plus 25m flare stars	1 x = 2 x 2 H +
20	Curtis Anderson, Minnesota	636		41	Francis Morgan, Canada	260
21	Leif Robinson, California	626	S	42	Paul Ahnert, Germany	259
22	Leopoldo Celis S., Chile	625		43	Robert Price, Australia	251
23	D.W. Orchiston, Australia	604	St.	44	R. Lansing Hicks, Connecticut	239
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TABLE III - NAUSO DESERVERS

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Annual Report, 1961

45	Christopher Soratt Canada	237	07	Pruso Cardner Bonneylyania	63
_	Christopher Spratt, Canada		97	Bruce Gardner, Pennsylvania	
46	Charles McPherson, Montana	235	98	Ricardo Gonzales, Chile	63
47	Tom McFarland, Wisconsin	230 S	99	Marcos Severin, Argentina	63
48	*Donald Engelkemeir, Illinois	224	100	Arthur Pearlmutter, New York	61
	*plus 44h 37m flare stars		101	George Diedrich, Ohio	59
49	Jeremy Knowles, Colorado	222	102	Jurgen Masuch, Germany	59
50	D.A. Sherwood, Canada	222	103	A.R. Ball, Wisconsin	58
51	R.H. Bicknell, So. Rhodesia	220	104	Philip Peters, California	55
52	Marvin Baldwin, New Mexico	208	105	Bruce Buckman, Australia	54
53	Rainer Mende, Germany	202	106	Robert Conklin, Virginia	53
54	Victor Aguirre, Chile	200	107	William Glenn, New York	48
55	Peter Lehmann, Germany	192	108	Norman Hutchings, Canada	48
56	John Ruiz, New York	190	109	Juan Astudillo, Chile	47
57	Robert W. Miller, Florida	183 S	110	Oliveiros Tavares, Brazil	47
58		178	111		44
	Csaba Szekely, Hungary			Ronald Royer, California	
59	Kenneth Fuller, Arizona	174	112	Robert Sealy, Oregon	44
60	Enzo Ortiz, Chile	172	113	Edward Halbach, Wisconsin	43
61	G. Vodrazka, Australia	167	114	Walter Hampton, Connecticut	41
62	Arturo Martinez, Chile	158	115	Stephen Bieda, California	40
63	Diane Lucas, Ohio	156	116	Angel Meynet, Argentina	40
64	Wolfgang Quester, Germany	145	117	I.P. Debono, Australia	39
65	Carl Anderson, New Hampshire	144	118	Eliz. McDonagh, Australia	38
66	Wayne Lowder, New York	142 S	119	Everett Morrow, California	38 S
67	Ernest Lorenz, California	140	120	Dan Judd, New Mexico	36 S
68	Patrick Rizzo, New York	139	121	Edgar Paulton, New York	36
69	*Keith Axelson, California	134 S	122	Alfonso Caceres, Chile	35
	*plus 3 ^h 8 ^m flare stars		123	Robert Loblay, Australia	35
70	F.N. Traynor, Australia	133	124	K. Menzel, Australia	35
71	G.O. Rawstron, England	128 S	125	Douglas Bash, Wisconsin	34 S
72	Lancaster Hiett, Virginia	124	126	Jay Frogel, New York	34
73	0.M. Erpenstein, Callfornia	119 s	127	A. Thomas Murphy, California	34
74	Ximena de la Vega, Chile	112	128	Manuel Schilling, Chile	33
75	Joao Pena, Portugal	iii	129	J.G. Craig, Canada	32
76	Gary Bream, Pennsylvania	108	130	Henry Specht, Connecticut	32
77	Alphonse Oberstatter, France	107	131		31
78		104		Ray Berg, Indiana	31 S
	Sergio Solano, Chile		132	Richard Stanton, California	-
79	Mario Fernandes, Germany	102	133	Neil Travis, Michigan	30
80	Walter Scott Houston, Conn.	101 S	134	Nona Ledbetter, Mississippi	29
81	Lajos Bartha, Hungary	100	135	Roger Kopp, Michigan	27
82	Margaret Olmsted, Maine	99	136	DeLorne Diedrich, Ohio	26
83	Morgan Thomas, Washington	99	137	Harold Kastin, New York	26
84	Howard Nightingale, Australia	95	138	Luiz Muniz B., Brazil	26
85	M. Lattey, Canada	90	139	R.R. Staer, Australia	26
86	Rene Figueroa, Chile	87	140	Dezso Drahos, Hungary	25
87	Stephen Schiff, Louisiana	86	141	Hernan Salce M., Chile	25
88	Herbert Seavey, Arizona	83	142	W. Schröder, Germany	25
89	William De Forge, New Jersey	82	143	Gordon Smith, Canada	25
90	Patricio Giordano, Chile	82	144	Richard Davis, Massachusetts	23
91	Robert Shayler, Texas	74	145	Florence Glenn, New York	23
92	J. Russell Smith, Texas	74 S	146	Violeta Izquierdo, Chile	23
93	Tomas Balassa, Chile	69	147	Santiago Barrera, Chile	22
94	Craycroft Wilson, New York	68	148	Paul Knauth, Texas	22
95	Mario Loocks, Chile	66	149	James Carlisle, S. Carolina	21
96	Andres Hidalgo, Chile	65	150	Imre Fejes, Hungary	21
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151	Beaufort Ragland, Virginia	21	207	Joseph Kammel, New York		5
152	Julieta Venegas, Chile	21	208	Anthony Mackay, Chile	5	555555555554
153	Silvia Aquirre, Chile	20	209	Juan Moroni, Chile		5
154	Cornelia Newton, California	20	210	Jose Olivarez, Texas		5
155	Leslie Sheldon, Canada	20	211	Robert Pearcy, Indiana		5
156	Van Wilson, Arizona	20	212	Fermin Pereyra, Chile		5
157	Mario Acuna, Chile	19	213	Pedro Quijada, Chile		5
158	Charles Aronowitz, New York	19	214	Patricio Rettig, Chile		5
15)	Norman Godfrey, Texas	19	215	Dario Riquelme, Chile		5
160	John Lynch, Texas	19	216	Edward Schmidt, Montana		5
161	Raul Manasevich, Chile	19	217	Karl Wells, New York		5
162	Joseph Anderer, Illinois	18	218	Jane Douglas, New York		
163	J. Flavin, Australia	18	219	James Ellerbe, Jugoslavia		4
164	M. Sobrinho, Brazil	18	220	Jerome Hudson, Texas		4
165	Elena Bizzozere, Chile	17	221	George Lovi, New Jersey		4
166	Maria Geerdts, Chile	17	222	Carlos Pizarre, Chile		4
167	Richard Yelle, Massachusetts	17	223	Juan Riquelme, Chile		4
168	Jair Barroso, Brazil	16	224	Nelson Rocha, Chile		4
169	Pal Szabo, Hungary	16	225	Jose Rojas, Chile		4
170	Pedro Borquez, Chile	15	226	Dan Snow, Ohio		4
171	Donald Ward, Australia	15	227	Wallace Byrd, Oklahoma		3
172	L.J.A. Williamson, Australia	15	228	Ali Dueck, Chile		3
173	Sergio Melendes, Chile	14	229	Arnold Engel, Chile		3
174	Miguel Valdez, Chile	14	230	James Thompson, New York		3
175	F. Lewindon, Australia	13	231	Julio Alcazar, Chile		43333222222222222
176	Peter Williamson, Australia	12	232	F.J. Brinley, Maryland		2
177	Walter Kaminski, Wisconsin	11 S	233	Pedro Carbacho, Chile		2
178	Dan Leithoff, Oregon	10	234	Julio de Buen, Chile		2
179	Stephen Maran, Michigan	10	235	Frederick Fallon, Maryland		2
180	Dennis Matthies, Wisconsin	10	236	Anthony Hull, Connecticut		2
181	Richard Wend, Wisconsin	10 S	237	Tim Hunter, Illinois		2
182	Waldo Molina, Chile	9	238	Antonio Lazo, Chile		2
183	Sandor Pinter, Hungary	9	239	Rafael Quiroga, Chile		2
184	Albert Ullmann, New York	9	240	John Ries, Wisconsin		2
185	Donald West, Washington	9	241	Christine Rosenfield, Michigan		2
186	William Abbey, Florida	8	242	Barton Sallings, Ohio		
187	John Graham, Australia	8		David Stowe, Wisconsin		2
188	Sonia Loocks, Chile	8	244	Maria Teran, Chile		2 2 2
189	Amelia Lorca, Chile	8	245	· · · · · · · · · · · · · · · · · · ·		2
190	Maria Ormazabal, Chile	8	246	•		
191	Peter Petik, Hungary	8	247	· · · · · · · · · · · · · · · · · · ·		1
192	Richard Tompkins, Pennsylvania	8	248	Maria Berzano, Chile		1
193	Carlos Uribe, Chile	8	249	John Cobb, Wisconsin		1
194	Robert Farmer, Texas	7	250	Mario D'Ardillon, Chile		1
195	Guillermo Fernandez, Chile	7	251	Edward DeGennaro, New York		1
196	Miguel Mena, Chile	7	252	J.G. Goodsell, California		1
137	Alexandre Rocha, Brazil	7	253	Margaret Mayall, Massachusetts	•	1
198	G. Topp, Australia	7	254	Marcelina Prat, Chile		,
199	Claudio Aguirre, Chile	6	255 256	Donald Ramthun, Wisconsin		1
200	Ismael Alvarez, Chile	6	256 257	Rodolfo Riveros, Chile		1
201	James Breckinridge, Ohio	6	257 258	Ines Romano, Chile		1
202 203	Claudio Czuia, Chile	6	258 250	Kenneth Weitzenhoffer, New York		1
	Gabriel Garland, Chile	6	259 260	Irving Williams, New York		.] . 1
204 205	Jose Izquierdo, Chile	6 6	261	Joan Williams, New York		1
206	Donald Lammon, California		201	Ray Zit, Wisconsin		1
200	Gunnar Darsenius, Sweden	5				

Twenty-three observers sent reports in each month during the year, and sixteen others missed one or two months. It is important for us to receive the observations as soon as possible after the first of each month, in order to have up-to-date information available concerning the variables. We receive many requests for information concerning the current activities of certain stars, and we have standing requests from spectroscopists who wish to be alerted for any unusual actions in any of the variables on our program.

SPECIAL PROGRAMS. We are pleased to have many observers becoming interested in special observing programs to be carried out under AAVSO supervision. Flare stars are of great interest, and statistics of hours observed with no flare activity are important. A few flares have been caught, notably one of AD Labrais by Donald Engel-kemeir (see P.A.S.P. 71, p. 522, December 1959).

A very successful program was set up several years ago at the request of Andrew Young of the Harvard Observatory, to observe 3 interesting Cepheid variables in the galactic cluster NGC 7790. Two of them, CEa and CEb Cas, are only 2 seconds of arc apart, a very difficult observing problem, requiring an fairly large telescope and near perfect seeing conditions. The results of 2 observing seasons gave a correction to the previous periods and continuing observations result in further refinements.

Dr. Ashbrook has suggested observations of several eclipsing stars. They require a series of observations through minimum with accurate timing. John Ruiz and Donald Engelkemeir have made very good PEP determinations, and Dr. Ashbrook has found that the mean of several visual determinations is also valuable.

Several Observers have become intensely interested in the Orion Region variables. Leif Robinson, who is responsible for the fine chart of the region, is setting up programs of simultaneous visual observations. Charles Giffen uses filters for visual work, particularly the green Wratten 57 (see AAVSO Abstracts October 1960). R.W. Miller and H.E.M. Specht are doing photographic work, and Stephen Burt is experimenting with a Danjon Cat's Eye Photometer.

Probably for the first time, an organized visual program was set up for the observation of a supernova, SN 4564. T.A. Cragg produced a chart and sequence within a few days of the discovery of the supernova, and many members were able to observe it. A paper in the Abstracts of the October 1961 meeting gives results from four of the observers.

Mr. Cragg is also doing some fine work in setting up sequences and charts for interesting variables to add to our observing programs. He bases the photovisual magnitudes on photoelectric standards. The final drafting of new charts is done by Robert Brady.

INTERNATIONAL COOPERATION. At the meeting of Commission 27 Variable Stars of the International Astronomical Union during the Eleventh General Assembly, the suggestion was made that it would be of great value to the professional astronomer if all amateur variable star associations could send their observations to one central head-quarters, where all available observations would be combined and published as 10-day means. This would in no way interfere with the publications of other societies, in fact, they are urged to publish their individual observations. The AAVSO, as one of the largest organizations, was asked to undertake the project. Our observations are already published as 10-day means, so it will require very little more time and printing space to include more observations, and much more complete mean curves

should result. Full credit will be given to each society so there should be no duplication trouble. The individual observations of the AAVSO members are not printed, but are preserved on microfilm, and are available to any one needing them, at slight cost.

OTHER ACTIVITIES. The Solar Division with Harry Bondy, Chairman, continues to supply the important American Sunspot Numbers to the National Bureau of Standards, in addition to the SEA and SES work. The Occultation Committee, under the Chairmanship of Roy Seely, has a fine record of occultations observed and sent to the International center in England. The Photoelectric Photometry Committee, under the Chairmanship of Lewis Boss, with the able help of John Ruiz and Donald Engelkemeir, has done much to help the amateur. The PEP Handbook, which has been out-of-print, is being rewritten, and will include much information of value to prospective observers. A Photographic Committee is being set up, under the Chairmanship of Charles Giffen. Much interest has been evinced in photography by many of our members, and it will be good to have a committee to answer their questions, and to set up programs for their cooperation. The Chart Curator, Richard Hamilton, reports a great deal of activity with new charts, and requests for many large sets of AAVSO charts. Two hundred and fifty mailings of nearly 6,000 charts were made during the year. The Nova Search Committee under the Chairmanship of George Diedrich, has continued to accumulate valuable statistics on the occurrence, or non-occurrence of novae. During the year, 33 observers reported searching for nova a total of 2,849 area nights.

PERSONNEL. We have been very fortunate that Mrs. Florence Campbell Bibber has been able to put in full time as AAVSO assistant. We had many interviews to try to find a third person for the office staff, but did not succeed in finding anyone suitable, and decided that it would be a more efficiently run office with just the two of us. We have been fortunate, however, that one of our members, Stephen Burt, has been able to come in for a few hours a week, after school, and on Saturdays. He has been a great help to us. Mrs. Bibber's past experience with her father's work, and her long time contact with AAVSO affairs, has been invaluable. She carried on the work of the office very efficiently while I was attending the meetings of the International Astronomical Union in Berkeley this summer.

I want to take this opportunity to thank all of the officers of the AAVSO and all our members and friends for their consideration and encouragement. They help in many ways, with contributions of money, books, and time. I would like to mention in particular, Mrs. Phoebe Haas, who continues her work of taking 10-day means of observations sent to us by other societies.

We are looking forward to the next fifty years, and only regret that not many of us will be here to learn the accomplishments.

Respectfully submitted,

MARGARET W. MAYALL Director, AAVSO