ANNUAL REPORT OF THE DIRECTOR OF THE AAVSO FOR THE YEAR ENDING SEPTEMBER 30. 1964

It gives me great pleasure to present my 15th Annual Report as Director of the AAVSO for the fiscal year 1963-64. The Association has continued to grow, with many new members and a record number of observations.

We continue to receive many calls from astronomers for information concerning our observations in connection with research projects.

Last year I reported about Dr. Martin Schwarzschild's plans to observe spectra of some late type variables during the next flight of his Stratascope II. In November 1963 they had a very successful flight of the balloon, carrying a 36-inch telescope, which weighed over 3 tons, and secured ultra violet spectra of some of the variables we helped him select. His observations confirmed that there are water vapor bands in the spectra of supergiant red stars.

Dr. M.C. Bretz of the Observatoire de Marseille asked for information on the light curve of 043065 T Camelopardalis. She had spectra of 2 maxima which differed considerably, and wanted to know whether the observations were at different phases or whether the maxima were of different kinds. The information we gave her was sufficient to show that T Cam is a star which should be observed even more thoroughly in the future, both visually and spectroscopically.

Dr. Jason J. Nassau of the Warner & Swasey Observatory needed observed magnitudes of 142584 R Camelopardalis for a number of dates on which he had spectroscopic observations. We were able to give him the information he wanted.

Dr. W. Krzeminski of the Obserwatorium Astronomiczne in Warsaw requested information on the maxima of U Geminorum to aid in his discussion of some UBV photoelectric observations he had gathered over the last 2 years at the Lowell and Lick Observatories.

Yoshio Fujita of the Department of Astronomy of the University of Tokyo asked for predictions of epochs of maximum light during 1964 and 1965 for a group of peculiar red variables.

We are continuing to watch for indications of faint maxima for a group of variables selected by Dr. George Herbig. Up to the present time, he has not been able to get the peculiar spectra for which he hoped, but we are not discouraged and will keep on trying.

Dr. Herbig is also requesting special observations of 201520 V Sagittae, during the next observing seasons. We are asking all observers to start on January 1, 1965 to use a new sequence determined photoelectrically by Dr. Smak at the Lick Observatory. Because of the rapid changes in V Sge, single isolated or inaccurately timed observations are practically useless and observers are asked to make runs of well timed observations covering one or two hours during an evening. The new magnitudes and a note on the type of observations required are given in the AAVSO Abstracts (October 1964 meeting) page 8.

FINANCES. We were fortunate in securing a Grant from the Office of Naval Research to help with our expenses during the year. The Grant was given specifically for the work of determining observed dates of Maxima and Minima for the long period variables on our program. It was estimated that the project would require 2 years to complete, and although the Grant was given for just one year, I have recently been given as-

surance that we would receive a similar Grant for the year 1964-1965, in order to complete the work.

Our members and friends have continued to help us financially. The Endowment Fund received the fine gift of 30 shares of IBM stock from Clinton Ford's good friend, "Mr. X", who has been so generous over the past years. Our member "Mr. Y" once again gave us \$1,000 to help in our general expenses. Other members have made regular monthly contributions to the Endowment Fund or the General Fund. I would like to take this opportunity to thank them for their generosity. The support of our members is especially important when we are asking for funds from Foundations and other organizations.

MEMBERSHIP. At the October 1963 meeting in Worcester, Massachusetts, we elected a record number of 65 new Annual Members and 3 new Sustaining Members. In addition, 5 of our Annual Members changed their memberships to Sustaining. At the Spring 1964 meeting in St. Louis, Missouri, we elected 1 new Sustaining and 48 new Annual members, and 10 of our Annual members changed to Sustaining. This makes a total of 117 new members during the year. Our membership is growing in spite of the fact we had to drop some from our list who had not paid dues for over 2 years.

SUBSCRIPTIONS TO PUBLICATIONS. Twenty-six libraries and observatories subscribe to our publications, and the Mt. Wilson & Palomar Observatories subscribe to our Special Services.

REQUESTS FOR INFORMATION. During the year, we received 746 requests for information about AAVSO and variable stars. Many requests were from children, but a good proportion came from owners of telescopes and resulted in a large number of our new members and observers.

NOVA AWARD. The 6th AAVSO Nova Award was presented to Leslie Peltier for his discovery of Nova Herculis 1963. The presentation was made by our President, George Diedrich at Peltier's home in Ohio.

LIBRARY. Nearly 500 items, consisting of various publications and miscellaneous papers and reprints were received by the Charles A. McAteer Library during the year. About 16 books were also added to the Library, some review copies sent by the publisher, and others gifts from members.

<u>PUBLICATIONS</u>. Quarterly Report 26 was published in March 1964. It contains results of all observations made by our observers between 19 August 1959 and 21 September 1960: over 60,000 observations by 259 observers on 896 variable stars. Work on the preparation of No. 27 is progressing. It will contain results of observations up to the end of October 1961.

Two AAVSO Abstracts were issued, containing papers presented at the 1963 Annual and the 1964 Spring meetings. Many of the papers by our members are not published any where else, so quite often we print the complete paper instead of just an abstract.

Bulletin 26 containing Predictions of Dates of Maxima and Minima of Long Period Variables for the year 1964 was published in January. In addition, we supplied special predictions of bright variables to Sky & Telescope Magazine and to the Handbook of the Royal Astronomical Society of Canada.

Bulletin 27 was published in July. It contains predictions which roughly define

the shapes of the light curves of Mira stars, to be used in setting up observing programs. It tells how many days before and after maximum the star may be expected to be brighter than 11th magnitude and how many days before and after minimum it may be fainter than 13.5. It is hoped that observers will use this in conjunction with the current Annual Predictions, and one with a small telescope will not try in vain to see a variable which is certainly far below the limit of his instrument. Conversely, the observer with a large telescope will not observe a star which is certainly 11th magnitude or brighter, when there are so many faint stars needing observations.

Annual Reports of the Director, the Treasurer, and the Endowment Fund were published. A Membership List and list of current officers were distributed in January, in addition to the Julian Day Calendar, supplied by the Unitron Company. Book Reviews were printed in January and July.

The columns Variable Star Notes and The Director Reports appeared in each issue of the Journal of the RASC and Review of Popular Astronomy, respectively. Tables containing names of observers and the number of observations made by each during the month were published in each of the Magazines. Reports from the Nova Search Division appear in each number of the JRASC.

Sky & Telescope Magazine prints the Monthly American Sunspot Numbers as determined by the members of the AAVSO Solar Division. In addition they list the bright variables which are due to have maxima during the month.

Several foreign ephemerides print the predicted dates of maxima and minima of selected variables taken from our publications.

ANNUAL SUMMARY OF OBSERVATIONS. The numbers of observations received annually continues to increase. During the year 1963-64, we received 83,599 observations from 303 observers -- an all time high for number of observations, but 19 less observers than we had last year. That can probably be explained by the appearance of the bright Nova early in 1963, which always attracts many new but perhaps temporary observers.

A total of 1329 monthly reports was received during the year, an average of 111 per month. The reports came from 18 countries. The 45 foreign observers contributed 18,966 observations, about 23% of the total. The other 77% came from 258 observers in 34 states.

The total number of observations received by the AAVSO as of September 30, 1964 is 2,169,595.

Table I gives the breakdown by country and Table II the breakdown of the USA total by states. Table III lists all observers for the year 1963-64 in order of the number of observations. In Table III, the letter S followed by a number indicates the number of Inner Sanctum observations, as defined in my report of last year.

The order of top place observers has been changed this year. Cyrus F. Fernald now takes first place, with the splendid total of 6,068 observations; Reginald P. de Kock was second with 4,492; and Curtis Anderson was third with 4,423. A fourth observer also made over four thousand: Thomas A. Cragg, with 4,047. Three observers made between 3 and 4 thousand: Roger S. Kolman, Edward G. Oravec, and Carolyn Hurless; and 6 between 2 and 3,000: William I. Lowry, Mario Vattuone, Leslie C. Peltier, Clinton B. Ford, Robert M. Adams, and Marvin E. Baldwin. In all, 21 observers made more than 1,000 observations each, and 40 more than 500.

Fifty-two observers made the Inner Sanctum this year with 4,170 faint observations. Last year, 40 observers made 2,832 faint observations. The faint ends of our light curves are being much better covered these days.

Thirty-five observers sent reports in each month, 12 missed one month, and 9 missed 2 months. In comparison, last year 26 observers submitted monthly reports, 15 missed 1 month, and 11 missed 2 months. We appreciate receiving the reports regularly each month as it helps us in keeping our light curves up-to-date. Of the regular observers this year, 18 started observing within the last 2 years.

We had reports from 124 new Observers this year, and about one third have become regular contributors; 46 started during the summer months, and we hope they will continue their good work.

TABLE I - COUNTRIES

Country		No. Observers	Total Obs.		Country	No. Observe:		otal Obs.
Argentina	•	4	3104		Hong Kong	1		8
Australia		1	635		Italy	i		5
Brazil		8	364		Japan	,	1	306
Canada		12	1722		Mexico	ī		040
Chile		5	2085		Peru	i	•	5
England		ī	97		S. Africa	3		5097
France		ĺ	545		Switzerland	í	-	334
Germany		1	404		Taiwan	i		57
Greece		1	158		U.S.A.	<u> 258</u>	<u>66</u>	633
					Total	303	83	1599
			TABLE II	- UNI	TED STATES			
State	No. Obs.	Tot.	State	No. Obs.	Tot. Obs.	State	No. Obs.	Tot. Obs.
Arizona	2	24	Maryland	3	92	New York	27	7068
California		· ·	Mass.	11	2944	Ohio	30	6341
Colorado	1		Michigan	6	1392	Oklahoma	3	2833
*Conn.	13	3569	Minnesota	3	4520	0regon	3	76
*Florida	7		Miss.	í	40	Penn.	5	1006
Georgia	i	607	Missouri	ġ	2909	R.1.	2	630
Illinois	31	5636	Montana	2	1205	Texas	4	132
Indiana	5		Nevada	ī	5	Virginia	5	1437
l owa	2	195	N.H.	3	128	W. Va.	2	367
Kansas	2	287	N.J.	14	1374	Washington		29
Kentucky *Maine	2 5 5	139 3125	N.M.	4	2631	Wisconsin	14	1548
-Marie	2	3143				* Total	260	66633

^{* 2} Observers in 2 different states (1 Conn. and Fla., and 1 Maine and Fla.)

TABLE III - AAVSO OBSERVERS

1963 - 1964

,	C	(0(0 - 0	-	Charles A. Hablanes Hart	201	
	Cyrus Fernald, Fla. & Maine	6068 s 9		Charles A. McPherson, Mont.	306	
	Reginald P.de Kock, S. Africa	4492		Claude B. Carpenter, Calif.	302 S	
	Curtis E. Anderson, Minn.	4423 S357		Ralph N. Buckstaff.Wisc.	278 S	2
	Thomas A. Cragg, Calif.	4047 \$821		Adolfo Lecuona, N. J.	277	
-	Roger S. Kolman, Illinois	3272 5113		Harry L. Hughes, N. M.	262 S	14
	Edward G. Oravec, N. Y.	3201 S I		Etsuiku Mochizuki,Japan	251	
	Carolyn Hurless, Ohio	3015 \$324	56	Ronald Royer, California	242 S	
	William I. Lowry, Calif.	2621 S 81	_	Robert A. James, N. M.	225 S	1
	Mario Vattuone, Argentina	2551	58	Darreli Conger, W. Va.	220	
	Leslie C. Peltier, Ohio	2522 \$603	59	Wayne M. Lowder, N. J.	218 S	4
11	Clinton B. Ford, Conn.	2508 S482	60	Cesar Cusatis, Brazil	216	
12	Robert M. Adams, Missouri	2348 5415	61	Carlos E.A.Gondell, Arg.	215	
13	Marvin E. Baldwin, N.M.	2142 S 2	62	Jim C. Nourse, Kansas	203	
	Rodrigo de la Vega L.,Chile	1918	63	David B. Williams, Illinois	203 S	4
15	Ferdinand Hartmann, N. Y.	1519	64	Keith Axelson, Calif.	198 s	3
16	Stephen Forczyk, Mass.	1508	_	Robert C. Lozar, Illinois	193	
17	Floyd L. Waters, Oklahoma	1415		Mike Murphy, Iowa	193	
18	lda Horton, Oklahoma	1412	_	Walter R. Hampton, N. Y.	190	
	Ron Thomas, California	1062 \$188		Sheila V. Bishop, Conn.	183	
	Hideo Honda, Japan	1055 S 1		David M. Friedman, N. Y.	183	
	Domingo Taboada R., Mexico	1040 S 33		Francis P. Morgan, Canada	182	
_	George Rippen, Wisconsin	992	71	Jeremy H. Knowles, Colo.	181	
	Kenneth J. Delano, Mass.	968	-	G.L. Fortier, Canada	180	
	Harry V. Roberts, Illinois	951		Charles L. Ricker, Michigan	175 S	2
	C.J. Renner, Michigan	950 s 76		Albert P. Sharpless, Fla.	167 S	
	Larry Bornhurst, Calif.	910 S144		John Baxter, Canada	163	•
	R.F. Swanberg, Montana	899 s 72		A. Thomas Murphy, Calif.	163	
	Rodney A. Norden, Virginia	779		Constantin Chassapis, Greece	158 s	23
	David Rosebrugh, Conn.&Fla.	761		Ralph S. Bates, Mass.	152	2)
	Lawrence Hazel, N.Y.	710		Robert Provin, California	148 s	1
	R.C. Shinkfield, Australia	635		Bill Grady, W. Va.	147	1
	Lancaster Hiett, Virginia	621		Arthur J. Stokes, Ohio	143 S	4
	Edward Turco, R. I.	618		Jerome Hequembourg, Mass.	141	Т.
	Eugene A. Powell, Georgia	607		Hyman Roche, New York	137	
	M.D. Overbeek, S. Africa	589 S 11				,
	plus 5 ^h UV Cet	JUJ 3 11		Raymond R. Dudley, Calif.	136 S	3
36	Charles L. Fink, Pa.	578		David Florkowski, Michigan	131	
	Alphonse Oberstatter, France	545 S 24		William Mintel, N. J.	126	
	Allen Stearns, N. J.	519		Russell Ducott, Mass.	125	
	Thomas Sullivan, N. Y.	503		M. Lattey, Canada	125 S	1
	Raymond R. Thompson, Canada			Carl A. Anderson, N.H.	121	
	Hugh Ross, Canada	500		•	118	
		473		Frank J. Kelly, Florida	116	
	Allen C. Montague, Illinois	438		Robert Sheppard, Calif.	114	
	Paul Ahnert, Germany	404		Peter A. Brennan, Illinois	108	
	John J. Ruiz, Pa.	349		Richard E. Wend, Illinois	104 S	11
	Kurt Locher, Switzerland	334 S 2		William A. Miller, N. J.	102	
	Carlos L. Segers, Argentina	317		Margaret Olmsted, Maine	98	_
	John E. Bortle, N. Y.	312		G.O. Rawstron, England	97 S	
	Edwin E. Friton, Missouri	308		Jon H. Lutz, Wisconsin	93 S	2
マブ	Diane Lucas, Ohio	307 S 20	99	Charles W. Cannon, Calif.	92	

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	- 6	- Annual Report,	1964
100 Arthur E. Pearlmutter, N.Y.	87	154 Leonard L. Slack, Wash	25
101 George Ripley, Minnesota	87	155 Jeffrey Phillips, N. Y.	2/4
	84	156 Bruce Crowe, California	23 \$ 4
102 Ed Polson, Kansas	82 S 18	157 Kenneth Fuller, Arizona	23
103 Tom McFarland, Wisconsin	81	158 Albert Ullmann, N. Y.	22
104 Rodolfo Hurtado W., Chile	79 S 1	159 Kent De Groff, Calif.	21
105 Donald A. Rosenfield, Mich.	76	160 R. Terence Dickinson, Canada	21
106 Willis Haller, New York	74 74	161 Gary Kidwell, California	21
107 Tom Hering, Florida	74 74	162 Jose A. Pardi, Argentina	21
108 Stewart O'Byrne, Missouri	73	163 W.B. Albrecht, Wisconsin	20
109 Paul Hartmann, Kentucky	73 71	164 Bruce Brown, Illinois	20
110 Jose Olivarez, Texas	68	165 Art Calek, Illinois	20
111 Randolph Sheaff, Ohio	67	166 Rene Figueroa, Chile	20
112 Raymond Marlowe, New York	64	167 Richard G. Harrison, Md.	20
113 Armando Lagunas M., Chile	63	168 Betty Stephenson, Ohio	20
114 Ron Kaitchuck, Illinois	63	169 Christopher Spratt, Canada	19
115 Neil Tianen, New York	62	170 Ft.Worth Jr.Ast.Soc., Texas	18
116 Gerard H. Backof, Maryland	61	171 John T. Goodwin, Mass.	18
117 Richard A. Rizzo, New York	60	172 William Blunk, Illinois	17
118 Edwin V. Bishop, Conn.	60	173 Byron Foote, Conn.	17 S 1
119 William Werner, Ohio	58 S 22	174 Richard Gamble, Wisconsin	17
120 Roy K. Ensign, Calif.	57 S 3	175 Ernest O. Lorenz, Calif.	17
121 O.M. Erpenstein, Calif. 122 Chang-Hsien Tsai, Taiwan	57	176 Henry E.M. Specht, Conn.	17
123 Wilson H. Baade, Brazil	56	177 Glenn Williams, Illinois	17
124 Michael R. Meiley, Pa.	55	178 Donald R. James, Pa.	16
125 Alan Van Til, Indiana	54	179 William Spratley, Ohio	16
126 A.Richard Walter, N. J.	49	180 Tommy Stinson, Indiana	16
127 DeLorne Diedrich, Chio	48 s 1	181 S.C. Venter, S. Africa	16
128 George Diedrich, Ohio	48 S 1	182 Edward A. Halbach, Wisc.	15 S 2
129 David L. Carmichael, Mo.	47	183 Stephen R. Kessell, Maine	15
130 David Kasper, N. J.	47	184 Stephen E. Burt, Mass.	14
131 Celso de Carvalho, Brazil	45	185 James Low, Canada	14
132 Theodore Szybowicz, Mich.	45	186 Robert J. Stine, Calif.	14
133 Dan Leithoff, Oregon	41	187 Dennis Troemel, Wisc.	14
134 J. Russell Smith, Texas	41 5 12	188 Richard G. Estock, N. M.	13
135 Walter S. Houston, Conn.	40	189 Ronald Henderson, Illinois	13
136 Andy Howell, Mississippi	40	190 Richard Vodra, Ohio	13
137 Andy Roberts, Illinois	40	191 George Gasparian, R.I.	12
138 Jose M.L. da Silva, Brazil	37	192 Anthony Morehouse, Mich.	12
139 Frederick C. Dorr, Illinois	36	193 David W. Dunham, Conn.	11
140 Bob Bambara, Illinois	34	194 Virgil Tangney, Wisconsin	11
141 James E. Bowers, Calif.	33	195 Tom Thorp, California	11
142 Charles Schwerdtfeger, Canada	30	196 Donald F. Weber, Ohio	11
143 David McLanahan, Fiorida	29	197 George H. Curtis, Mo.	10 S 1
144 David Pechtold, Illinois	29	198 Frederick W. Fallon, Md.	10
145 Albert G. Varnum, Maine	29	199 Ronald E. Frank, Calif.	10
146 Darrell R. Fichtl, Oregon	28	200 Richard Hinz, Indiana	10
147 Michael Hassell, Virginia	28	201 Gary McGinnis, Minnesota	10
148 Walter L. Moore, Kentucky	28 S 3	202 Fred W. Forrester, Calif.	9 9 8 8 8
149 Edgar M. Paulton, N. Y.	28	203 David S. Parish, Calif.	9
150 Patrick V. Rizzo, N. Y.	28	204 B. Hobart Audet,Virginia	ğ C
151 Bruce E. Safriet,Kentucky	26	205 J.G. Craig, Canada	ŏ o
152 Ray M. Smith, Illinois	26	206 Ken Fitzgerald, N. Y.	Ö O
153 Brad D. Wallis, Calif.	26	207 William H. Glenn, N. Y.	8

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208 Janet M. Lang, Conn.	8	256 Mike Ryder, Illinois	4
209 Hing-chai Liu, Hong Kong	8	257 Jim Whitehead, Ohio	45 1
210 William Marshall, Pa.	8	258 Henry Janecek, Illinois	3
211 Sylvia Mosure, N. Y.	8	259 Elliot Lepler, N. Y.	3
212 Ken Raymon, Ohio	8	260 R. Lyons, California	3
213 Mary D. Roberts, Illinois	8	261 Anthony Hull, Conn.	3
214 William Romaniecki, Mass.	8	262 Alan Reed, California	3
215 Lester F. Yuill, N. J.	8	263 Ed Stith, Ohio	รั
216 Thomas R. Bear, Ohio	7	264 Bill Stuchal, Ohio	ž
217 James L. Bowden, Ohio	7	265 Barry Beaman, Illinois	3 3 3 3 3 3 2
218 Albert L. Brouillette, Wisc.	7		2
	7	266 Victor H. Blunck, lowa	
219 John Clark, Illinois	4	267 Tom S. Garrison, Calif.	2
220 Pat Jacoby, California	<u> </u>	268 Dan Hammond, Ohio	2
221 Robert N. Sealy, Oregon		269 Roy H. Hemmingway, Illinois	2
222 Charles Simono, Wisconsin		270 Jay Inge, California	2
223 Mary Ann Tangney, Wisconsin	7	271 Leroy Johnson, New York	2
224 Roger W. Tuthill, N. J.	7	272 T. Lawrence, N. M.	2
225 William E. Verge, Mass.	7	273 M.H. Major, Texas	2
226 Craycroft F. Wilson, N.Y.	7	274 Lawrence B. Nadeau, Mass.	2
227 James F. Wright, Canada	7	275 G. Phillips, Missouri	2 .
228 Danny Abdon, Kentucky	6	276 Everett Z. Randall, Florida	2
229 Wallace Byrd, Oklahoma	6	277 Armando Riudoff G., Chile	
230 C.A. Cromer, Indiana	6	278 Paul F. Schmitz, Ohio	2
231 John S. Kruszka, Illinois	6	279 John Tanner, Ohio	2 2 2
232 Bill Murrell, Kentucky	6	280 Michael Wolek, N. J.	2
233 John Roller, N. H.	6	281 Douglas Armes, N. Y.	ì
234 James R. Schmidt, Illinois	6	282 Arthur Berg, N. Y.	
235 Vicki Schmitz, Ohio	6	<u> </u>	,
236 Nancy Conover, Nevada	5	283 Timothy Brown, Arizona	1
		284 Taylor Cisco, Illinois	1
237 William H. Cuddy, Conn.	5	285 Chris Condon, California	!
238 Victor A. Estremadoyro, Peru	5	286 Alan Dadisman, California	1
239 Joseph Foran, Conn.	5	287 Jacintho de Paula, Brazil	į
240 Mike Johns, Ohio	5 5 5	288 Gerald Friton, Missouri	!
241 Terry Kesler, Ohio	5	289 Joe Heath, Indiana	1
242 Testa Valerio, Italy	5	290 Rowena Jones, Ohio	1
243 Len VonBenken, Ohio	5	291 L. Magginson, Missouri	1
244 Joseph A. Anderer, Illinois	4	292 David Maleham, N. H.	1
245 David Balam, Washington	4	293 Andre P. Martins, Brazil	1
246 William Condon, N. J.	4	294 Dennis Matthies,Wisconsin	1
247 Terry Dettmann,Wisconsin	4	295 Margaret W. Mayall, Mass.	1
248 Jose J. Dias N., Brazil	4	296 Robert N. Mazzarone, N.J.	1
249 Florence R. Glenn, N.Y.	4	297 Alan Mikel, N. J.	1
250 Allen S. Heasley, Ohio	4	298 Glenn Perry, Ohio	1
251 Tim Hunter, Illinois	4	299 Craig Posey, Virginia	1
252 Bill Kunisch, Ohio	4	300 Joel Silverberg, Maine	1
253 Paulo Mourilhe S., Brazil	4	301 Miles Specht, Ohio	1
254 Joan W. Pearlmutter, N.Y.	4	302 Ted Swenson, Illinois	i
255 Lyle Rich, Illinois	4	303 Craig Tucker, N. Y.	i
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OTHER ACTIVITIES. I would like to congratulate the Chairmen of our Committees for the fine work they are doing. Casper Hossfield, Chairman of the Solar Division, reports that many are interested in solar work. He now receives reports of sunspot counts from about 45 observers (22 standard). This sunspot minimum is the time to get experience in counting spots, rather than at a time when there are several hun-

dred spots visible. The SEA observers have had little activity to record.

The Chairman of the Nova Search Division, George Diedrich reports several "scares" during the year, but no novae were discovered by the Searchers. Forty different people observed Nova Search regions for a total of 3189 area-nights. Most of the observing was done by our Canadian and Australian observers.

Roy Seely, Chairman of the Occultation Division reported that 18 observers made 51 observations of 37 occultations during the year.

The Photoelectric Photometry Committee under the Chairmanship of Lewis J. Boss, has developed a great deal of interest in PEP work. The most active observers are John Ruiz and Arthur Stokes, who have done some very beautiful work. Several other members have equipment about ready to produce good observations.

The Chart Committee, Richard W. Hamilton, Chairman, filled about 550 orders for charts during the year. Over 10,000 blueprint charts, 22 AAVSO Atlases, and over 100 chart catalogues were issued to observers.

The reports of the Finance and Endowment Fund Committees are included in the Treasurer's Report. The market value of our Endowment Fund is now over \$200,000. This is particularly impressive when you realize that we started just 10 years ago with nothing but the Pickering Fund of \$6,356.76. We are nearly one quarter of the way toward our goal of one million dollars, which will enable the Association to be self supporting, with adequate housing for our offices, library and valuable records.

GIFTS. In addition to the contributions of money and time our members so generously give, we receive many other gifts during the year. Among them I would like to mention two telescope gifts. Mrs. Phoebe Haas gave us her beautiful 4-inch Clark refractor, complete with equatorial mounting, tripod and accessories. It is now in the hands of Walter S. Houston who has built a fine observatory to house it.

Ferdinand Hartmann, a regular observer for over 30 years, who holds 5th place in our list of all-time top observers, is giving the AAVSO his 4-inch Fitz and 5-inch Clark telescopes. But we hope he will continue to use them himself for many more years.

Dr. Alberta Hawes Henry (Mrs. William Henry) has given the Association the very fine collection of lantern slides belonging to her late husband. They will be a fine addition to our slide library.

Arthur Stokes, a member of our PEP Committee very kindly printed a correction sheet to be sent out with the 2nd printing of our Photoelectric Photometry Manual and savecus the expense of a new edition at this time. The Committee is working on a revised Manual, which should be ready by the time this printing is exhausted.

PERSONNEL. I am happy to report that Mrs. Florence Campbell Bibber has continued to serve as AAVSO Assistant. We are very fortunate to have her. I am also very glad to have her son John part time during his school term and during the summer. Mrs. Phoebe Haas continued her work on taking 10-day means of the observations of southern stars from the New Zealand Variable Star Section.

I wish to thank all the officers and members who have helped in so many ways.

Respectfully submitted,

Margaret W. Mayall, Director