

Astronomical League

Observing Program Division

Annual Report 2021

Submitted by the Astronomical League Observing Program Division Directors:

Aaron Clevenson

Cliff Mygatt

Al Lamperti

Maynard Pittendreigh

Highlights for the year:

2020-2021 has been a good year for the Astronomical League Observing Programs. A total of 857 certificates and/or pins were issued during the previous year (2019) and as of this time, a grand total of 15,763 certificates have been issued by the Observing Program Division. At the end of this report, there is a detailed analysis of all of the observing programs and awards. Budget information for the next year for the Observing Program Division as well as the total expenses for the previous year were sent separately to the AL Treasurer.

At the AL-Con in 2019 there were a total of 5 proposals. All were adopted:

- **Alternate Constellations**
- **Foundations of Imaging**
- **Library Telescope**
- **Master Imager**
- **Youth Astronomer**

Additionally, these certifications were adopted:

- Perseverance NASA Observing Challenge
- AL 75th Anniversary Observing Challenge – Jupiter
- Great Conjunction AL Observing Challenge
- Galileo's TOES II
- Additional certificates for Citizen Science are being added on an on-going basis

These proposed Observing Programs for consideration by Council at the AL-Con in 2021 were reviewed by Observing Program Directors. A summary of those reviews and recommendations was submitted to the President, Carroll Iorg and to the Council via email.

The list of known Observing Program Proposals for review at the 2020 AL-Con are:

- Jupiter Observing Program

No new Coordinators were appointed for observing programs in the past year.

Records for the Observing Program Division are reported by calendar year. Official reporting is through May 1 of the current year.

Observing Programs by activity level:

- Those programs with an average of over 50 certificates in the past year:
 - Outreach Award (63 awards in 2020)
- Those programs with an average between 25 and 49 in the past year:
 - Binocular Messier Observing Program (28 awards in 2020)
 - Citizen Science Observing Awards (42 awards in 2020)
 - Lunar Observing Program (47 awards in 2020)
 - Messier Observing Program (29 awards in 2020)
- Those programs with an average between 10 and 24 in the past year:
 - Binocular Double Star Observing Program
 - Binocular Variable Star Observing Program
 - Bright Nebula Observing Program
 - Carbon Star Observing Program
 - Comet Observing Program
 - Constellation Hunter – Northern Skies Observing Program
 - Double Star Observing Program
 - Globular Cluster Observing Program
 - Observer Award
 - Planetary Nebula Observing Program
 - Sky Puppy Observing Program
 - Universe Sampler Observing Program
 - Urban Observing Program
- Those programs with an average between 5 and 9 in the past year:
 - Advanced Observer Award
 - Alternate Constellations Observing Program
 - ARP Peculiar Galaxies – Northern Observing Program
 - Asterism Observing Program
 - Asteroid Observing Program
 - Beyond Polaris Observing Program
 - Binocular Master Observer Award
 - Caldwell Observing Program
 - Deep Sky Binocular Observing Program
 - Galileo Observing Program (Binocular and Regular)
 - Herschel 400 Observing Program
 - Herschel II Observing Program
 - Hydrogen-Alpha Solar Observing Program
 - Lunar Evolution Observing Program
 - Master Observer Award
 - Mentor Award
 - NASAS Observing Challenge - Perseverance
 - Nova Observing Program
 - Stellar Evolution Observing Program
 - Two in the View Observing Program
 - Meteor Observing Program
 - Multiple Star Observing Program

- Those programs with an average of 4 or less in the past year:
 - Active Galactic Nuclei Observing Program
 - Advanced Binocular Double Star Observing Program
 - Arp Peculiar Galaxy – Southern Observing Program
 - Astronomy Before the Telescope Observing Certificate
 - Constellation Hunter – Southern Skies Observing Program
 - Dark Nebula Observing Program
 - Dark Sky Advocate Observing Award
 - Earth Orbiting Satellite Observing Program
 - Flat Galaxies Observing Program
 - Foundations of Imaging Observing Program
 - Galaxy Groups and Clusters Observing Program
 - Galileo’s TOES Observing Certificates
 - Herschel Society Observing Certificates
 - Local Galaxy Groups Observing Program
 - Mars Observing Program
 - Master Observer – Gold Award
 - Master Observer – Platinum Award
 - Master Observer – Silver Award
 - NEO Observing Program
 - Occultation Observing Program
 - Open Cluster Observing Program
 - Radio Astronomy Observing Program
 - Spectroscopy Observing Program
 - Southern Skies Binocular Observing Program
 - Southern Skies Telescope Observing Program
 - Sunspotter Observing Program
 - Variable Star Observing Program
 - Youth Astronomer Observing Program

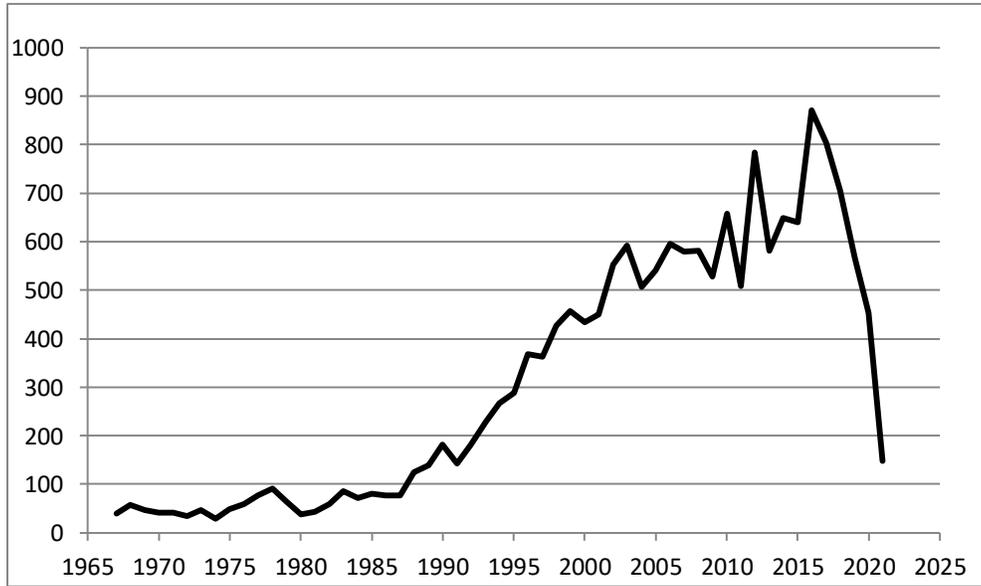
Accomplishments for the Overall AL Observing Program:

- These Observing Program Manuals have been reproduced:

<ul style="list-style-type: none"> ○ A Pathway to the Stars ○ Carbon Star ○ Exploring the Starry Realm ○ Galaxy Groups and Clusters ○ Journal – Imaging ○ Journal – Observation ○ Jupiter 	<ul style="list-style-type: none"> ○ Local Galaxy Groups ○ Mars ○ Math for Amateur Astronomers ○ Meteors ○ Planetary Nebula ○ Sky Puppy ○ Universe Sampler
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There were no issues requiring the attention of the Observing Program Directors. Issues were minor and handled well by the Observing Program Coordinators. None were escalated to the AL President. All have been resolved.

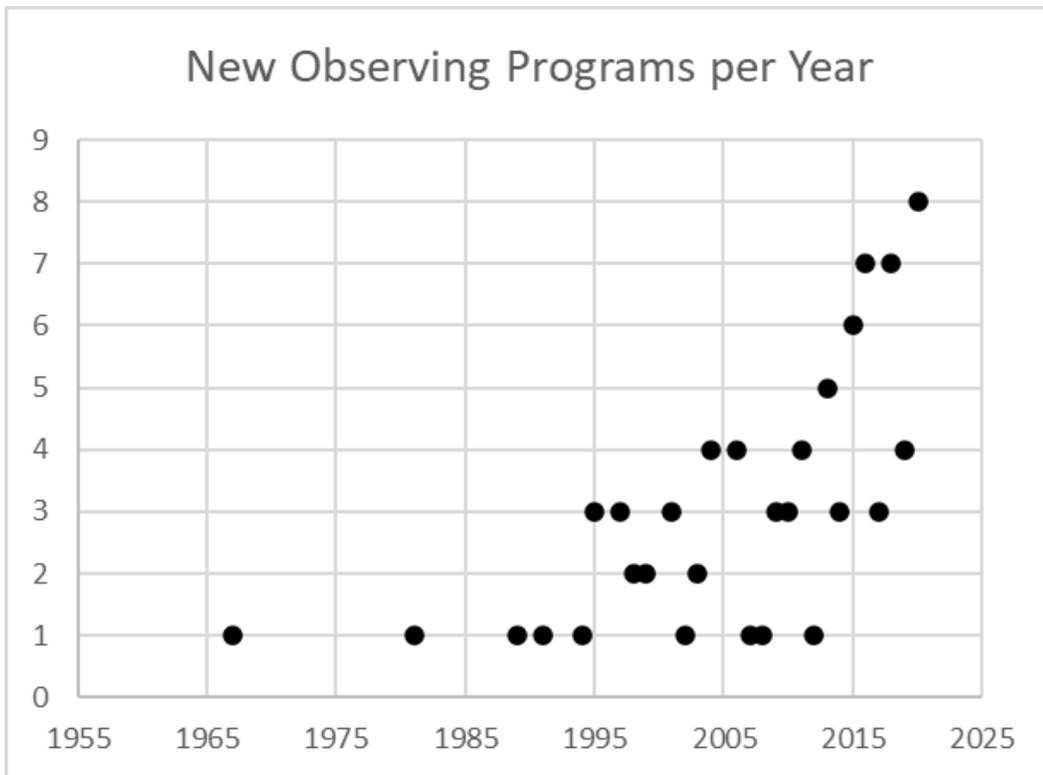
Overall Observing Program Division Awards

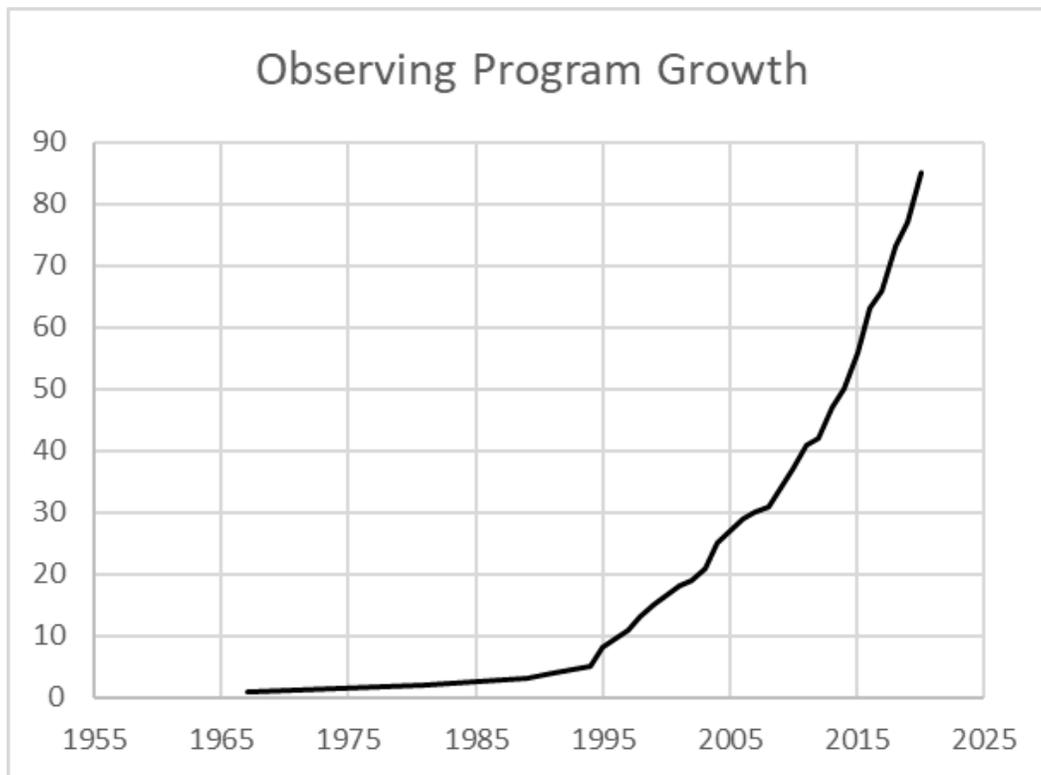


We note a significant drop in certifications in 2020 and 2021. We attribute this largely to the COVID pandemic.

Since the introduction of our first Observing Program in 1967, Messier, the Observing Program Division has grown significantly. It currently offers over 110 different certificates to our members.

New Observing Programs per Year





At this time these coordinators have more than three Observing Programs:

- Aaron Clevenson has the Master Observer Progression, coordinates the Special Observing Awards (none currently active), the Galileo's T.O.E.S. certificate, and Sky Puppy.
- Cliff Mygatt, and Scott Kranz each have 4 coordination roles.
- Three coordination roles per coordinator is the best practice that we follow.
- We have a total of 35 different coordinators at this time coordinating 69 Observing Programs and Awards. There are a total of 105 different certificates (by level and program) issued through the Astronomical League.

Respectfully submitted,

Aaron B. Clevenson

Clifton B. Mygatt, Jr.

Al Lamperti

W. Maynard Pittendreigh

National Observing Program Directors

June 1, 2021

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Individual Observing Program Statuses

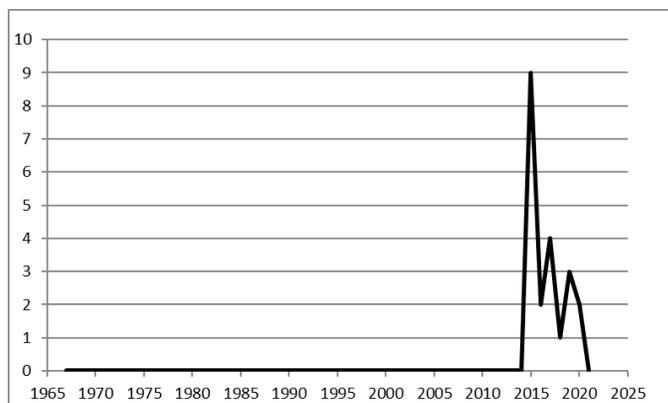
“Certificates issued this year:” are from 2020.

Active Galactic Nuclei Observing Program

Coordinator Name: Al Lamperti

Certificates issued this year: 2

Certificates issued ever: 22

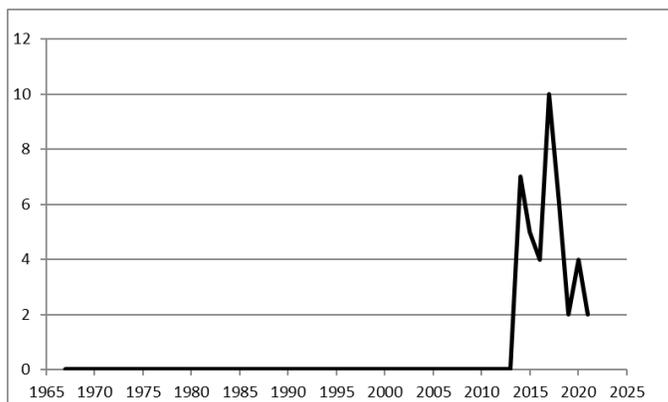


Advanced Binocular Double Star Observing Program

Coordinator Name: Bob Kerr

Certificates issued this year: 4

Certificates issued ever: 40

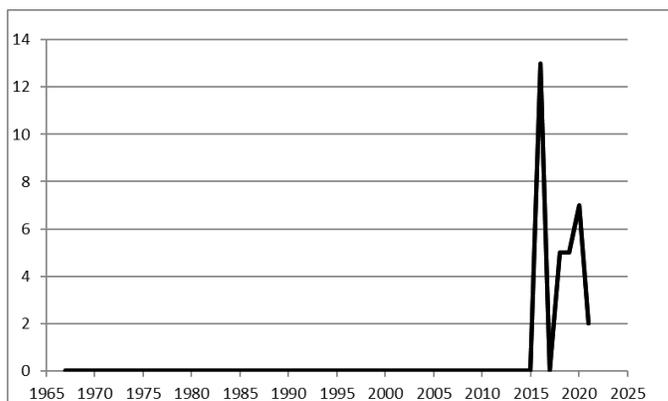


Advanced Observer

Coordinator Name: Aaron Clevenson

Certificates issued this year: 7

Certificates issued ever: 32

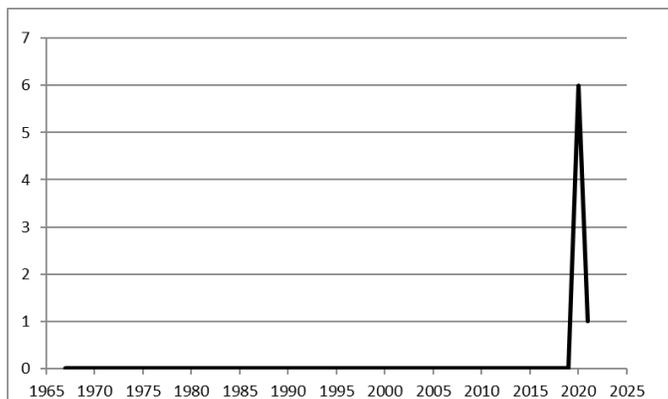


Alternate Constellations

Coordinator Name: Brad Young

Certificates issued this year: 6

Certificates issued ever: 7

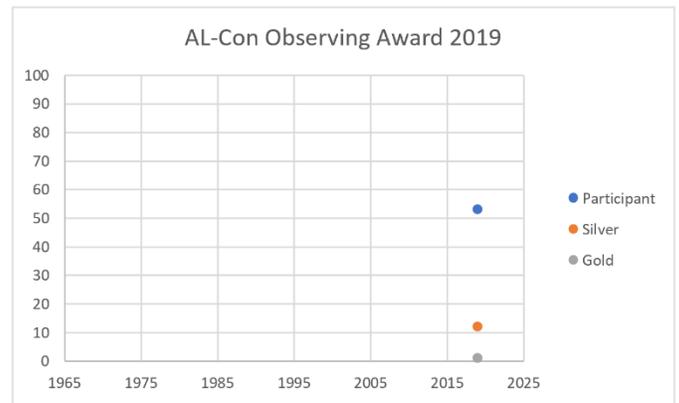


AL-Con 2019 Observing Challenge Certificate

Coordinator Name: Aaron Clevenson

Certificates issued:

Gold	Silver	Participant
1	12	53

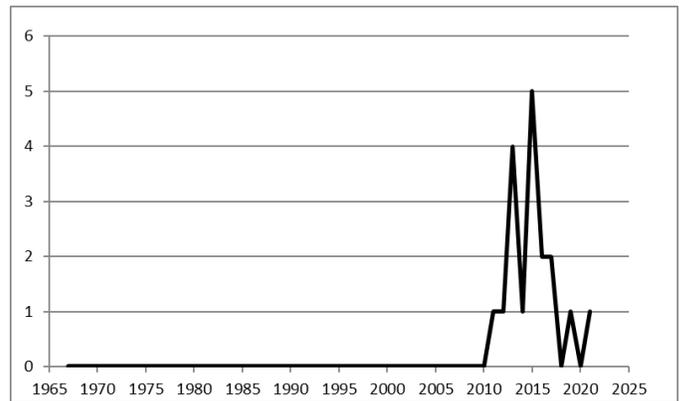


Analemma Observing Program

Coordinator Name: Douglas Smith

Certificates issued this year: 0

Certificates issued ever: 18

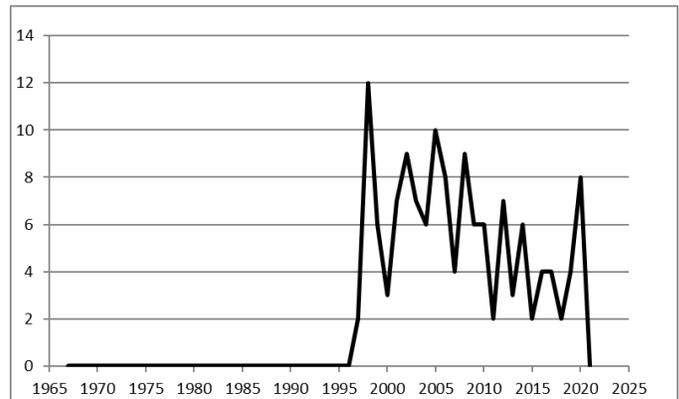


Arp Peculiar Galaxies – Northern Skies Observing Program

Coordinator Name: Marie Lott

Certificates issued this year: 8

Certificates issued ever: 137

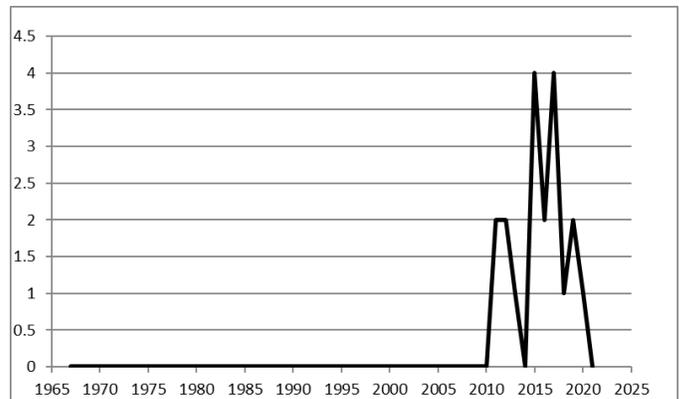


Arp Peculiar Galaxies – Southern Skies Observing Program

Coordinator Name: Marie Lott

Certificates issued this year: 1

Certificates issued ever: 19

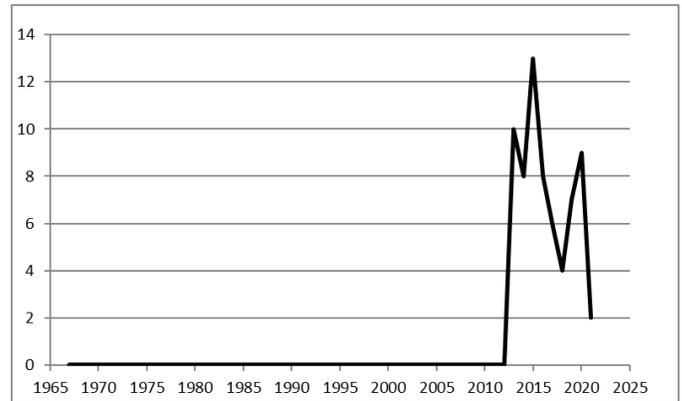


Asterism Observing Program

Coordinator Name: Troy Stratton

Certificates issued this year: 9

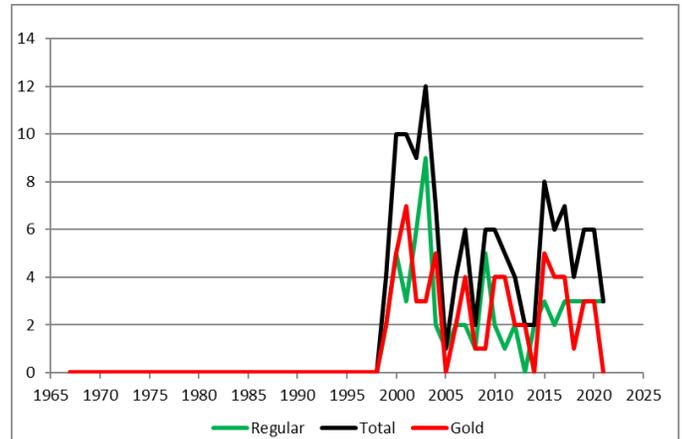
Certificates issued ever: 67



Asteroid Observing Program

Coordinator Name: John Goar

	Regular	Gold
Certificates issued this year:	3	3
Certificates issued ever:	65	65

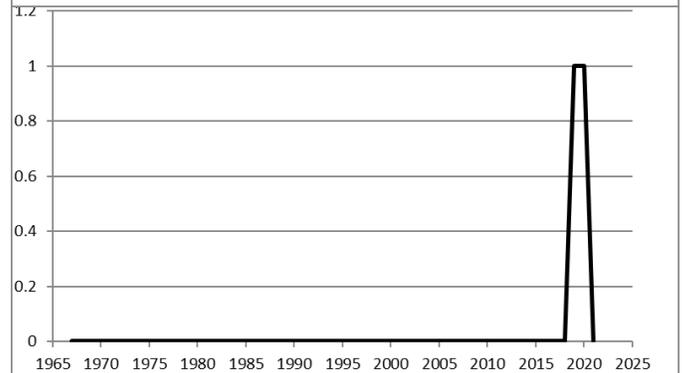


Astronomy Before the Telescope Certificate

Coordinator Name: Steve Boerner

Certificates issued this year: 1

Certificates issued ever: 2

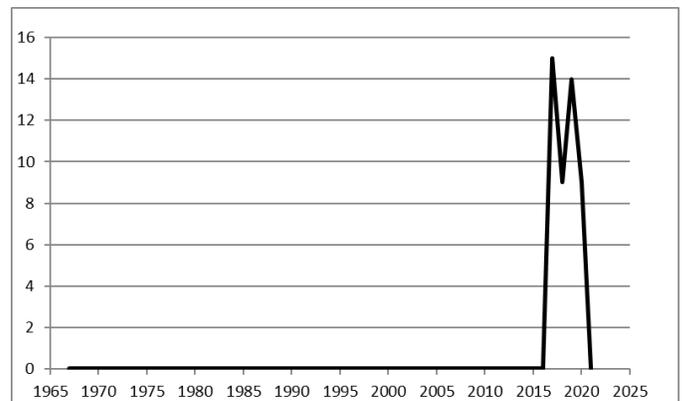


Beyond Polaris Observing Program

Coordinator Name: W. Maynard Pittendreigh

Certificates issued this year: 9

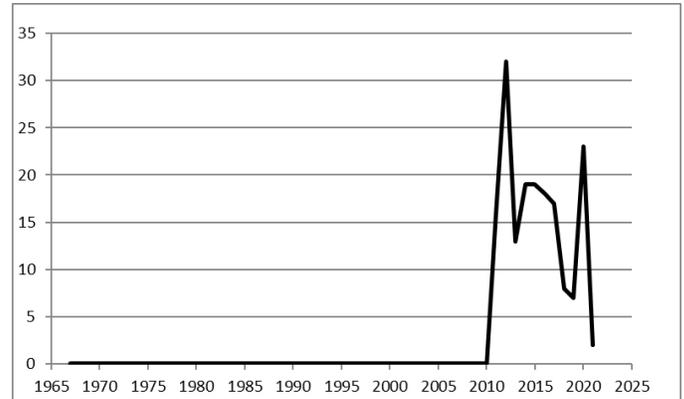
Certificates issued ever: 47



Binocular Double Star Observing Program

Coordinator Name: Bob Kerr

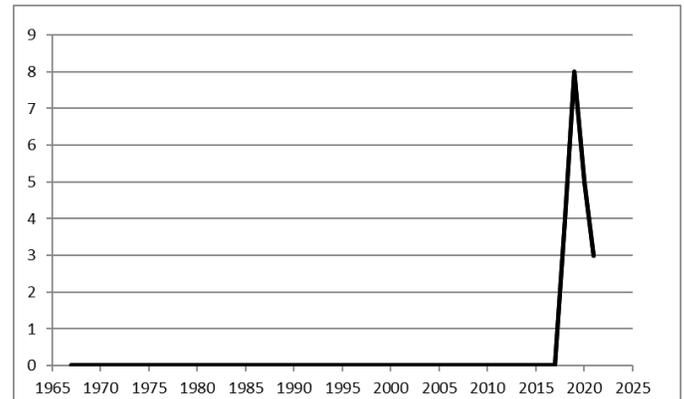
Certificates issued this year: 23
Certificates issued ever: 174



Binocular Master Observer Award

Coordinator Name: Aaron Clevenson

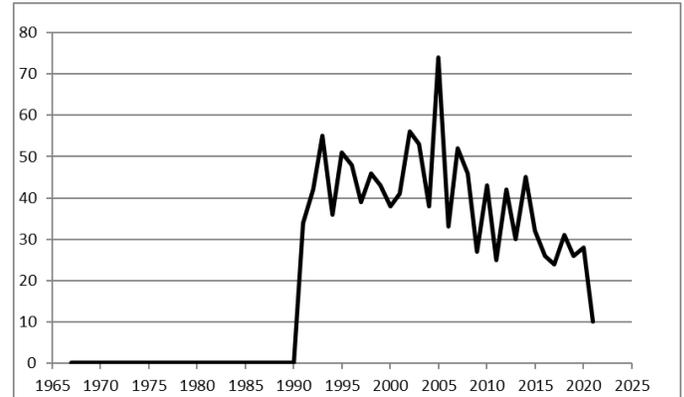
Certificates issued this year: 5
Certificates issued ever: 20



Binocular Messier Observing Program

Coordinator Name: John Goar

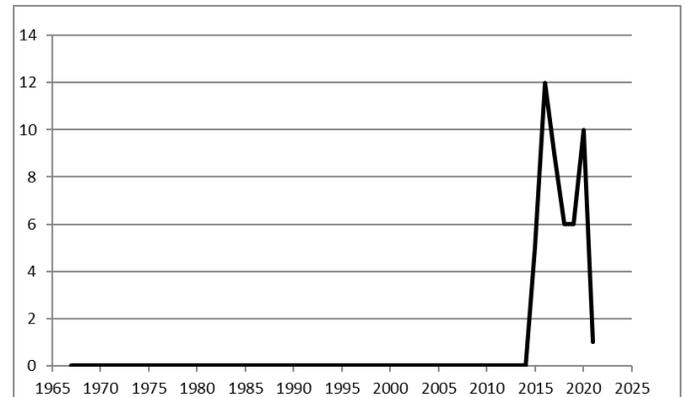
Certificates issued this year: 28
Certificates issued ever: 1214



Binocular Variable Star Observing Program

Coordinator Name: Robert Togni

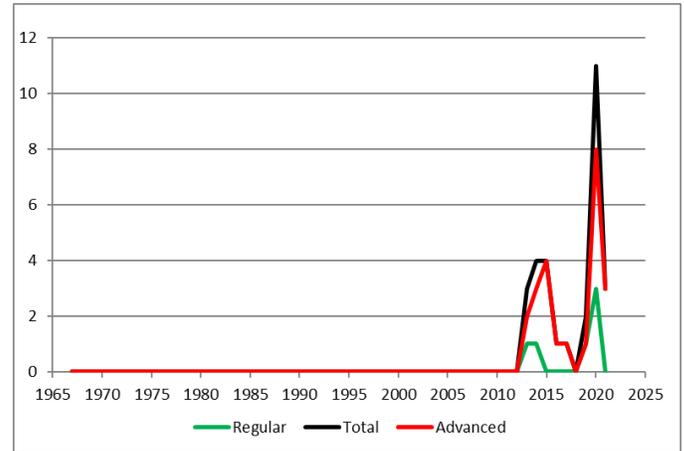
Certificates issued this year: 10
Certificates issued ever: 49



Bright Nebulae Observing Program

Coordinator Name: Bob Scott

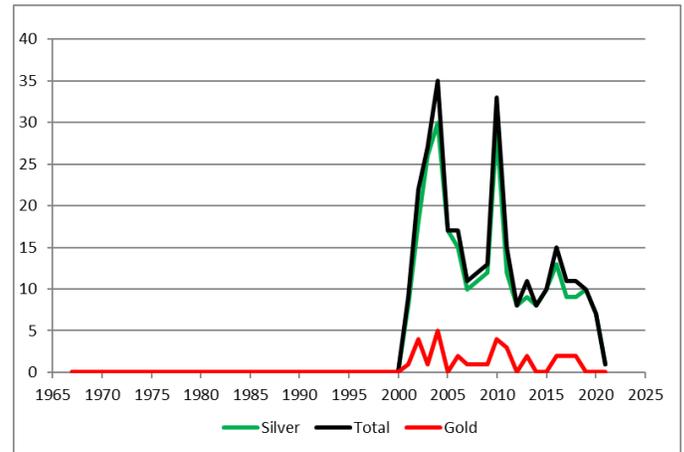
	Regular	Advanced
Certificates issued this year:	3	8
Certificates issued ever:	6	23



Caldwell Observing Program

Coordinator Name: Sue Rose

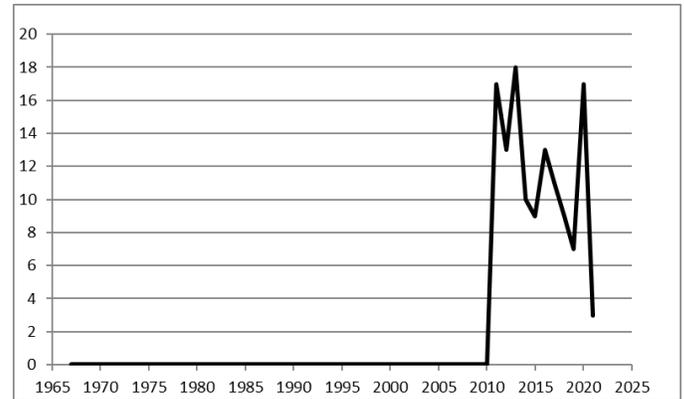
	Silver	Gold
Certificates issued this year:	7	0
Certificates issued ever:	272	31



Carbon Star Observing Program

Coordinator Name: Robert Togni

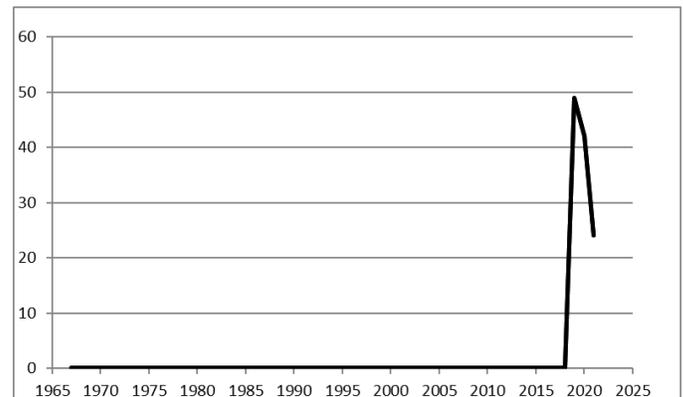
Certificates issued this year:	17
Certificates issued ever:	127



Citizen Science Observing Certificates

Coordinator Name: Al Lamperti

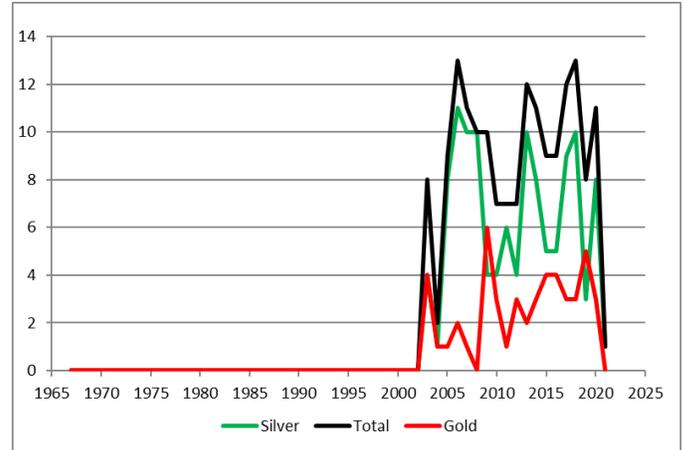
Certificates issued this year:	42
Certificates issued ever:	115



Comet Observing Program

Coordinator Name: Scott Kranz

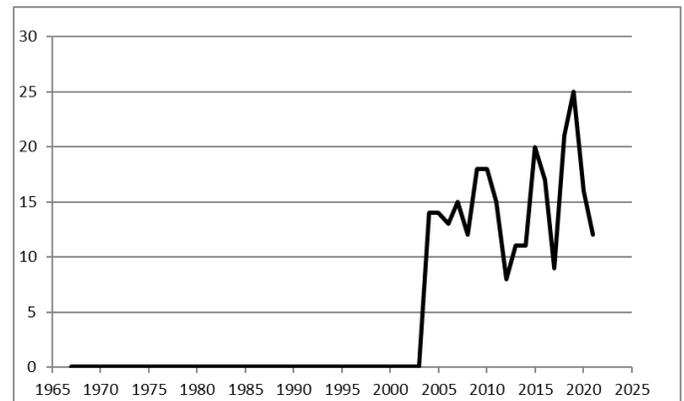
	Silver	Gold
Certificates issued this year:	8	3
Certificates issued ever:	121	49



Constellation Hunter – Northern Skies Observing Program

Coordinator Name: Cliff Mygatt

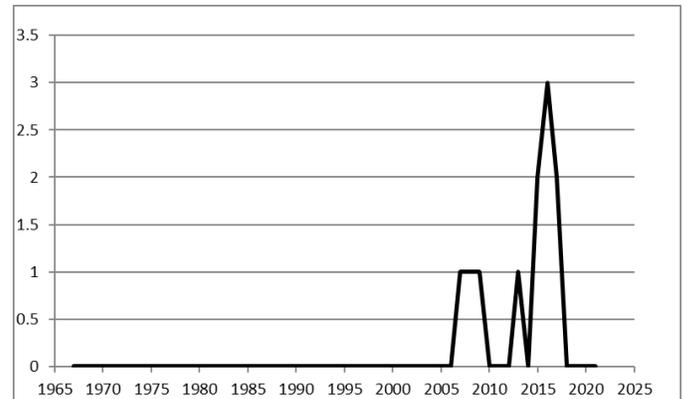
Certificates issued this year:	16
Certificates issued ever:	269



Constellation Hunter – Southern Skies Observing Program

Coordinator Name: Cliff Mygatt

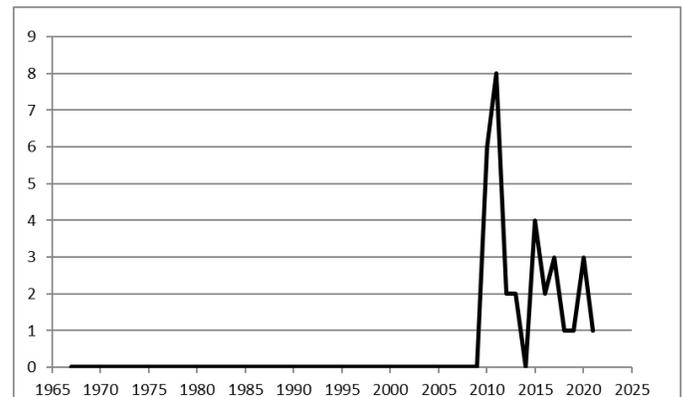
Certificates issued this year:	0
Certificates issued ever:	11



Dark Nebulae Observing Program

Coordinator Name: Kathy Machin

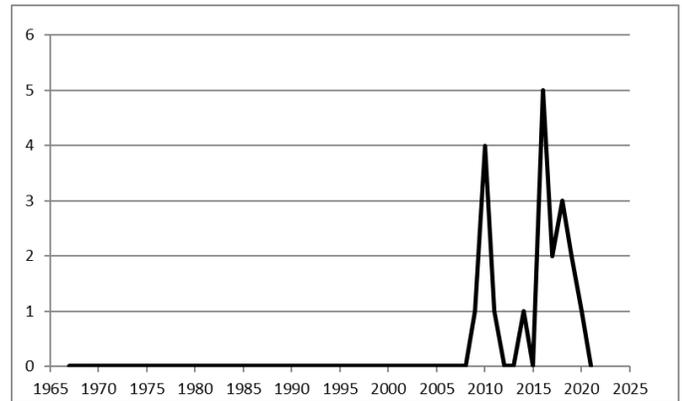
Certificates issued this year:	3
Certificates issued ever:	33



Dark Sky Advocate Observing Award

Coordinator Name: John Goss

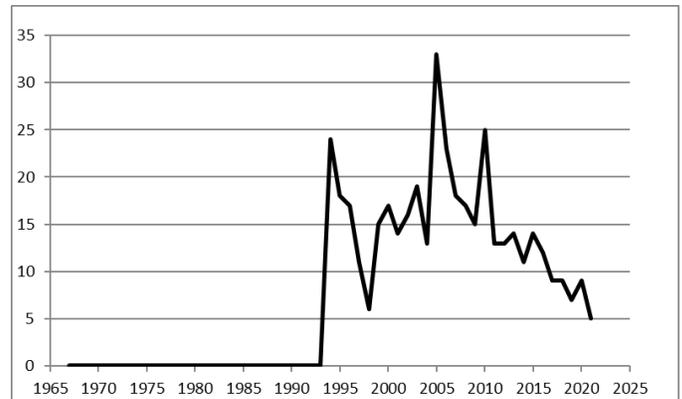
Certificates issued this year: 1
Certificates issued ever: 20



Deep Sky Binocular Observing Program

Coordinator Name: Cindy La Russa

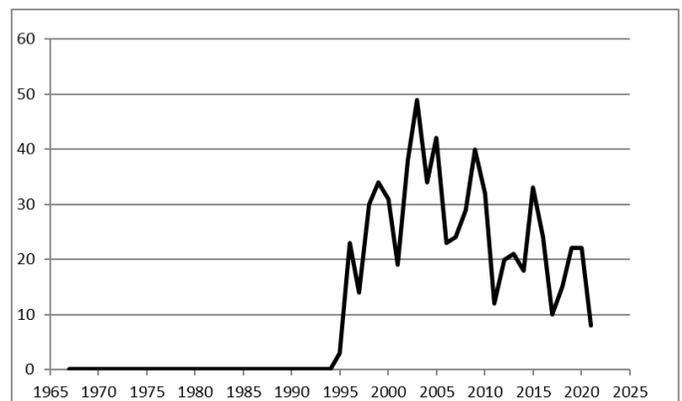
Certificates issued this year: 9
Certificates issued ever: 417



Double Star Observing Program

Coordinator Name: Jon Schuchardt

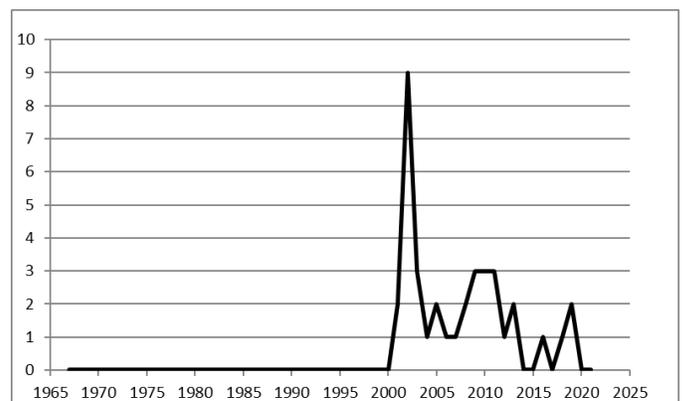
Certificates issued this year: 22
Certificates issued ever: 670



Earth Orbiting Satellite Observing Program

Coordinator Name: Tom DeClue

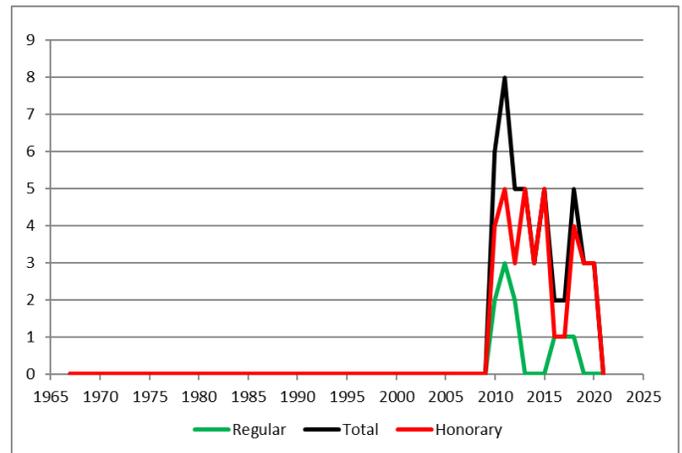
Certificates issued this year: 0
Certificates issued ever: 37



Flat Galaxy Observing Program

Coordinator Name: Al Lamperti

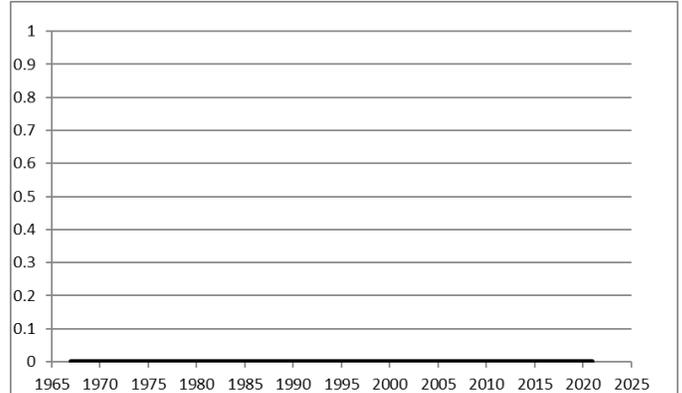
	Regular	Honorary
Certificates issued this year:	0	3
Certificates issued ever:	10	37



Foundations of Imaging Observing Program

Coordinator Name: Dan Crowson

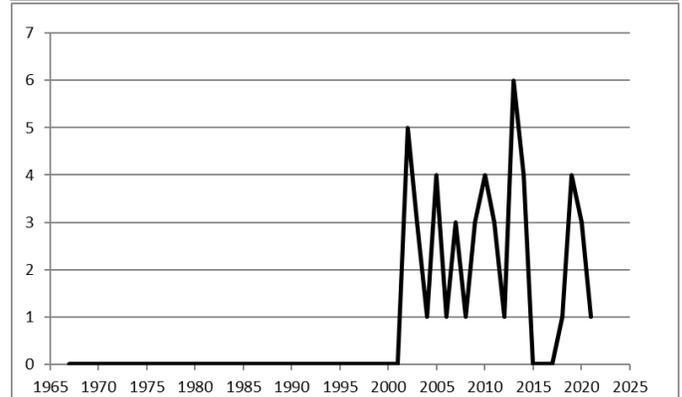
Certificates issued this year:	0
Certificates issued ever:	0



Galaxy Groups and Clusters Observing Program

Coordinator Name: Russell Pinizotto

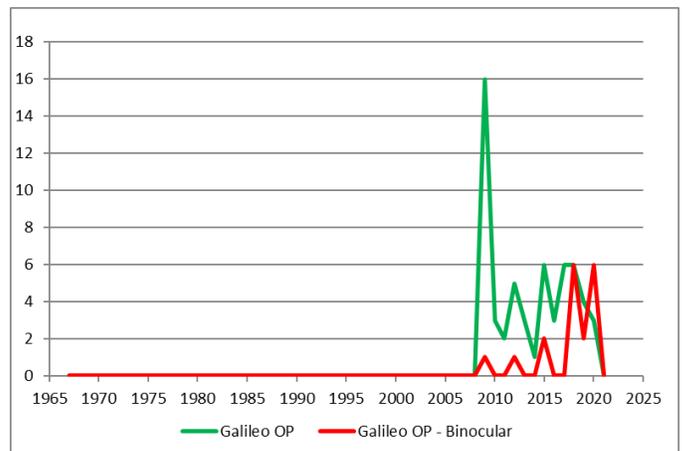
Certificates issued this year:	3
Certificates issued ever:	48



Galileo Observing Program

Coordinator Name: Rodney Rynearson

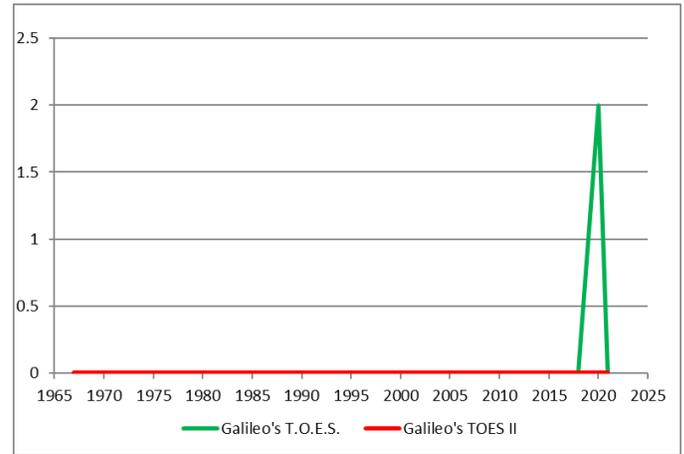
	Regular	Binocular
Certificates issued this year:	3	6
Certificates issued ever:	58	18



Galileo's T.O.E.S. Certificate

Coordinator Name: Aaron Clevenson

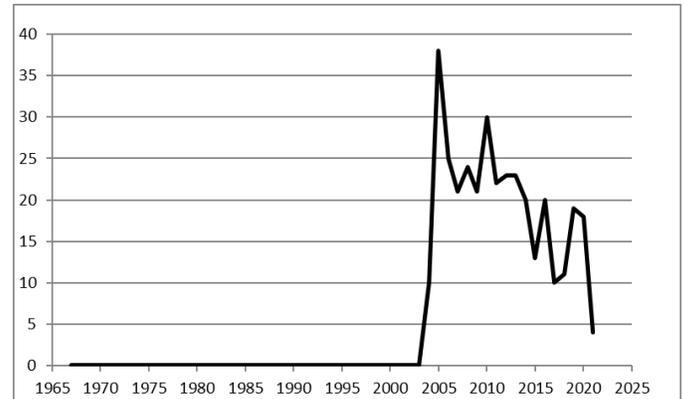
	TOES	TOES II
Certificates issued this year:	2	0
Certificates issued ever:	3	0



Globular Cluster Observing Program

Coordinator Name: Bob Kerr

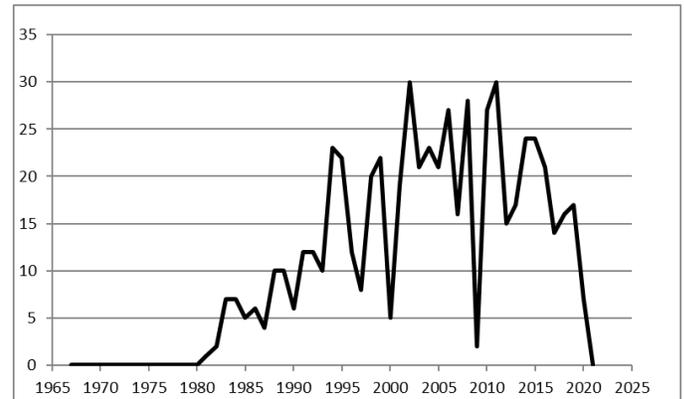
Certificates issued this year:	18
Certificates issued ever:	352



Herschel 400 Observing Program

Coordinator Name: Jack Estes

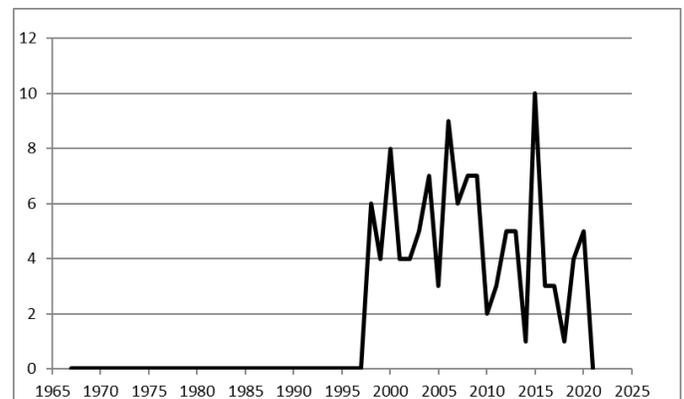
Certificates issued this year:	7
Certificates issued ever:	603



Herschel II Observing Program

Coordinator Name: Candace Pratt

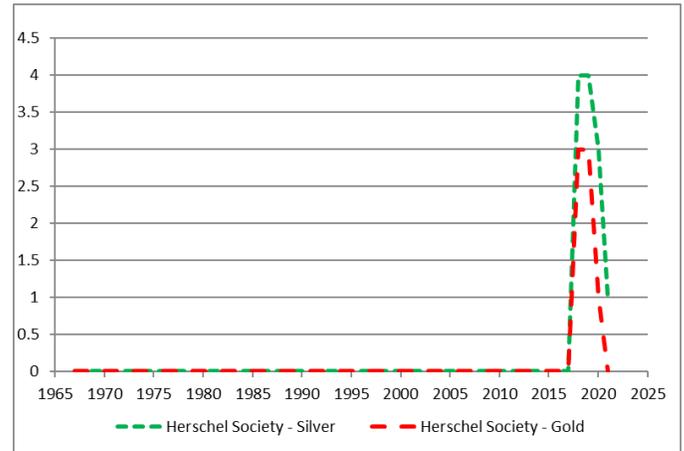
Certificates issued this year:	5
Certificates issued ever:	112



Herschel Society Certificates

Coordinator Name: Cliff Mygatt

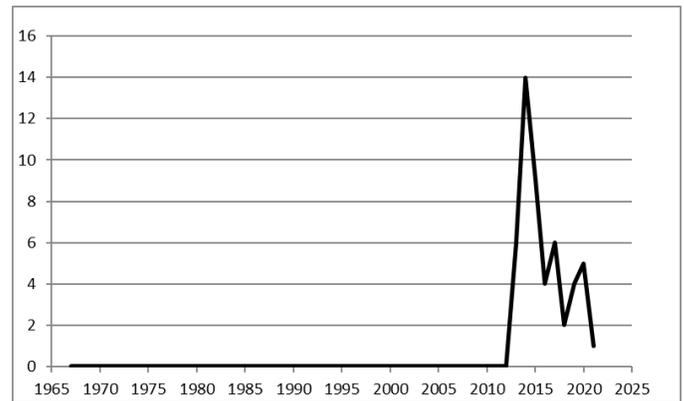
	Silver	Gold
Certificates issued this year:	3	1
Certificates issued ever:	12	7



Hydrogen-Alpha Solar Observing Program

Coordinator Name: Mark Simonson

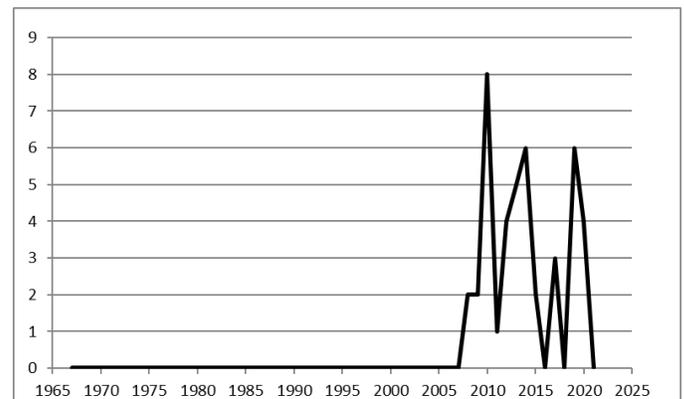
Certificates issued this year:	5
Certificates issued ever:	51



Local Galaxy Groups and Galactic Neighborhood Observing Program

Coordinator Name: Mark Simonson

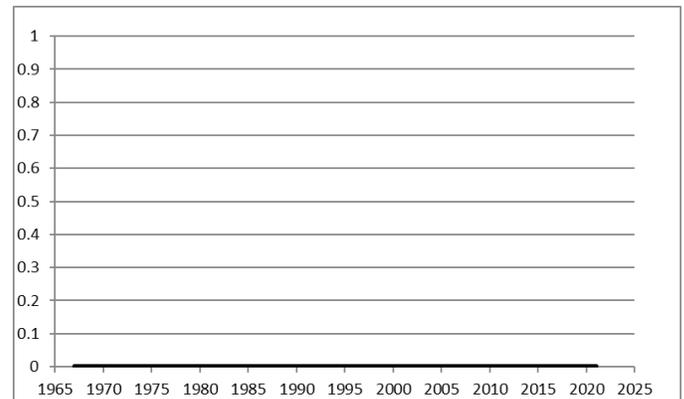
Certificates issued this year:	6
Certificates issued ever:	45



Library Telescope Observing Award

Coordinator Name: Tom Lynch

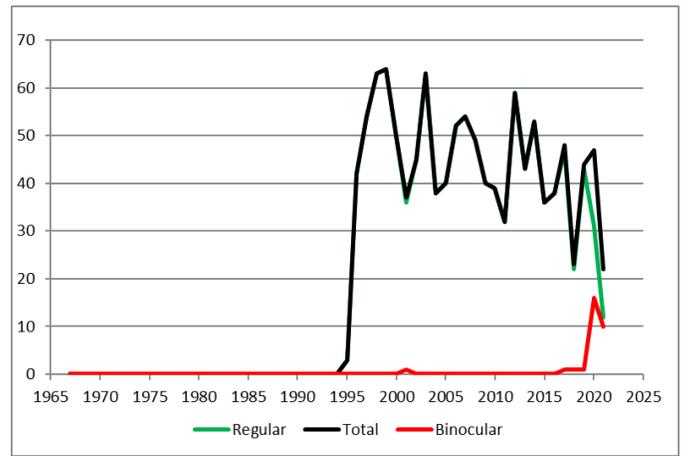
Certificates issued this year:	0
Certificates issued ever:	0



Lunar Observing Program

Coordinator Name: Chuck Allen

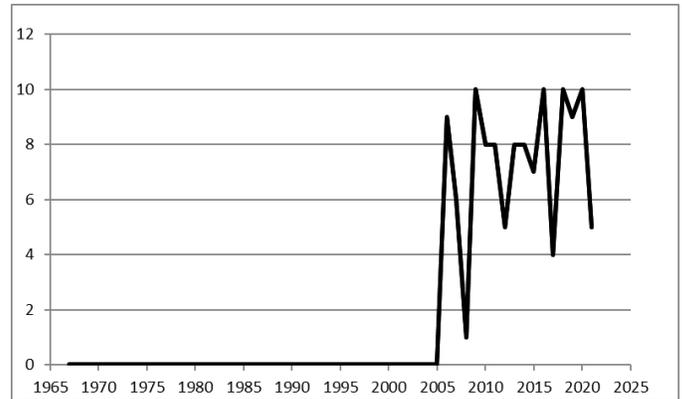
	Binocular	Regular
Certificates issued this year:	16	31
Certificates issued ever:	30	1148



Lunar II Observing Program

Coordinator Name: Cliff Mygatt

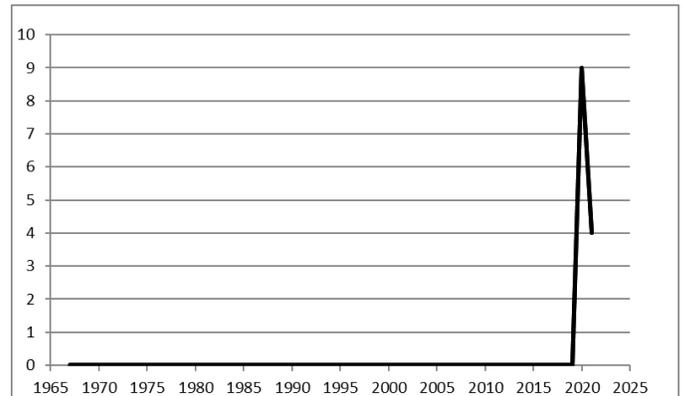
Certificates issued this year:	10
Certificates issued ever:	118



Lunar Evolution Observing Program

Coordinator Name: Chuck Allen

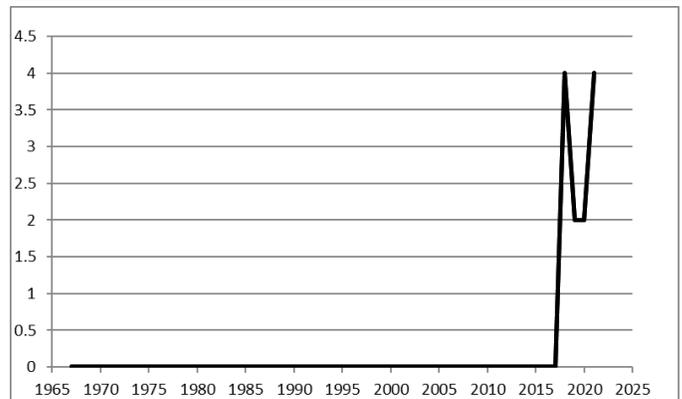
Certificates issued this year:	9
Certificates issued ever:	13



Mars Observing Program

Coordinator Name: Mark Simonson

Certificates issued this year:	2
Certificates issued ever:	12



Master Observer Award

Master Observer – Silver Award

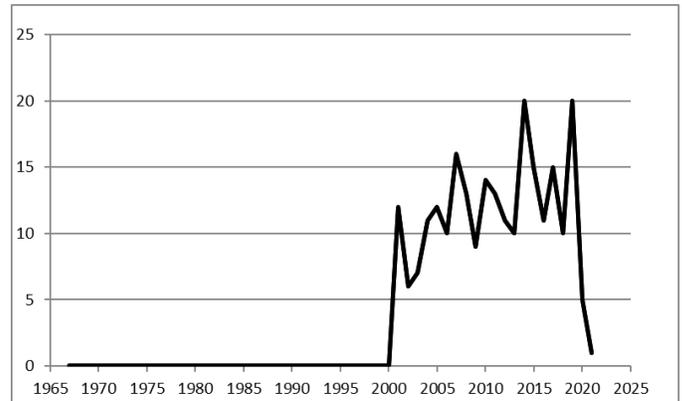
Master Observer – Gold Award

Master Observer – Platinum Award

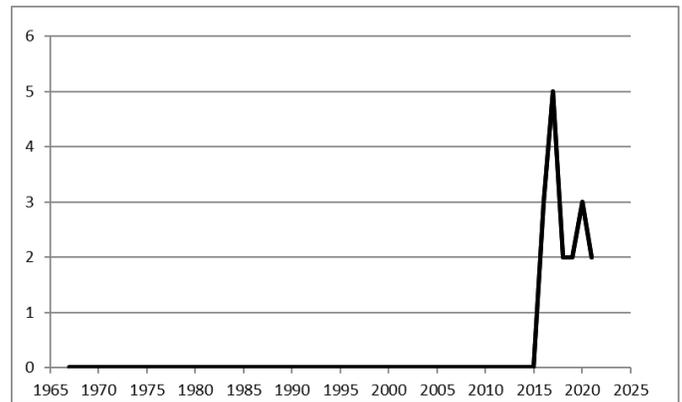
Coordinator Name: Aaron Clevenson

	Master	Silver	Gold	Platinum
Certificates issued this year:	5	3	0	0
Certificates issued ever:	241	17	10	3

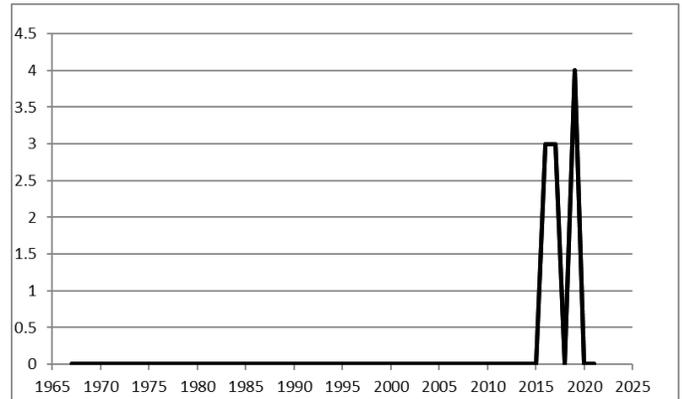
Master Observer Certificates Awarded:



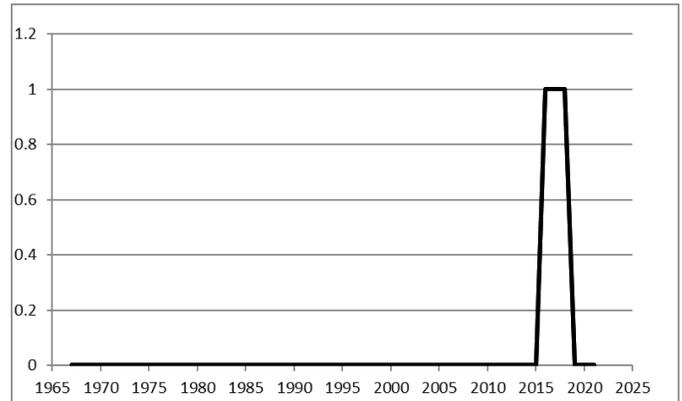
Master Observer – Silver Certificates Awarded:



Master Observer – Gold Certificates Awarded:



Master Observer – Platinum Certificates Awarded:

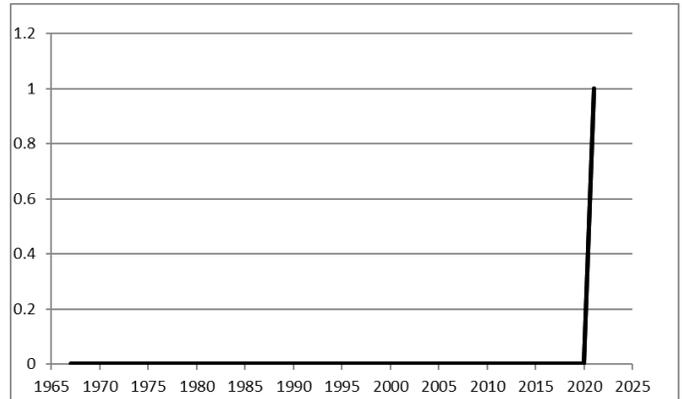


Master Imager Award

Coordinator Name: Aaron Clevenson

Certificates issued this year: 1

Certificates issued ever: 1

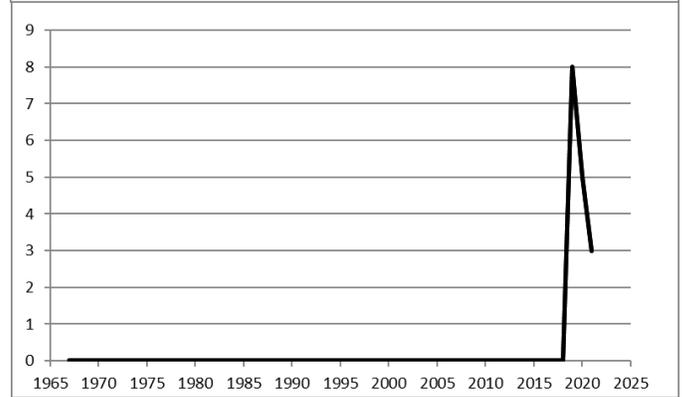


Mentor Award

Coordinator Name: Aaron Clevenson

Certificates issued this year: 6

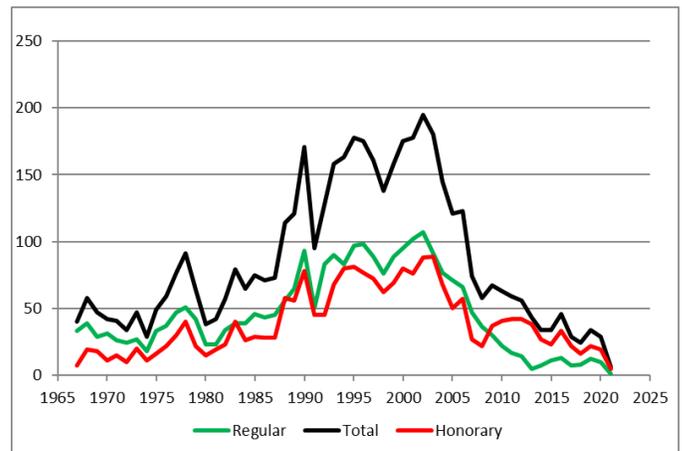
Certificates issued ever: 16



Messier Observing Program

Coordinator Name: Scott Kranz

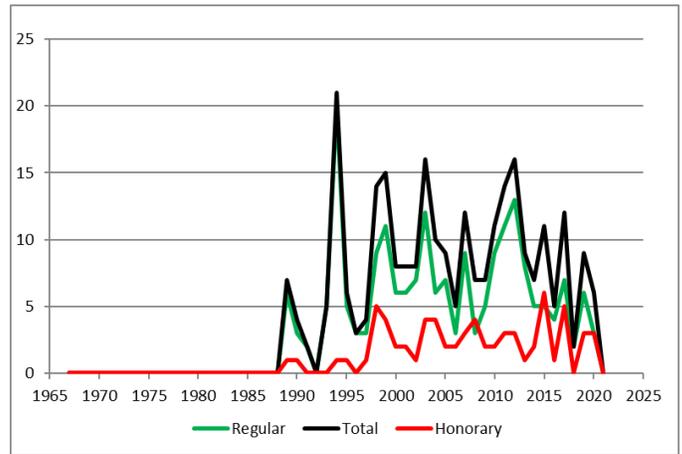
	Regular	Honorary
Certificates issued this year:	10	19
Certificates issued ever:	2547	2164



Meteor Observing Program

Coordinator Name: Scott Kranz

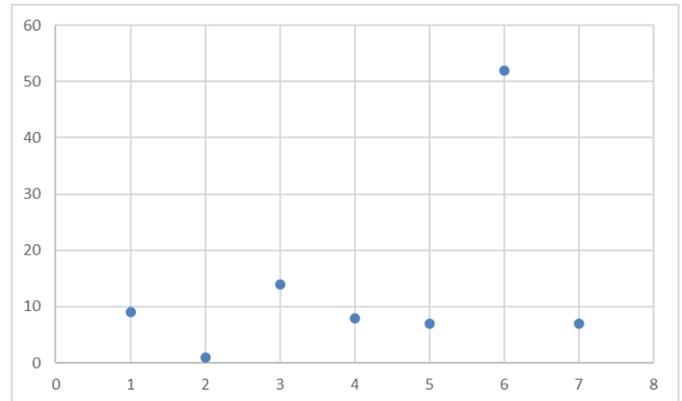
	Regular	Honorary
Certificates issued this year:	3	3
Certificates issued ever:	204	69



NASA Observing Challenge Certificates

Coordinator Name: Aaron Clevenson

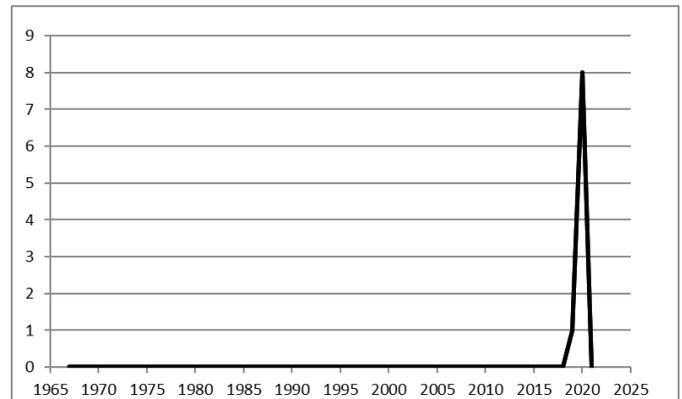
1. Siding Spring	(2013)	9
2. Rosetta	(2013)	1
3. New Horizons	(2014)	14
4. TESS	(2018)	8
5. InSight	(2018)	7
6. Apollo 50 th	(2019)	52
7. Perseverance	(2021)	7



Multiple Star Observing Program

Coordinator Name: Steve McGaughey

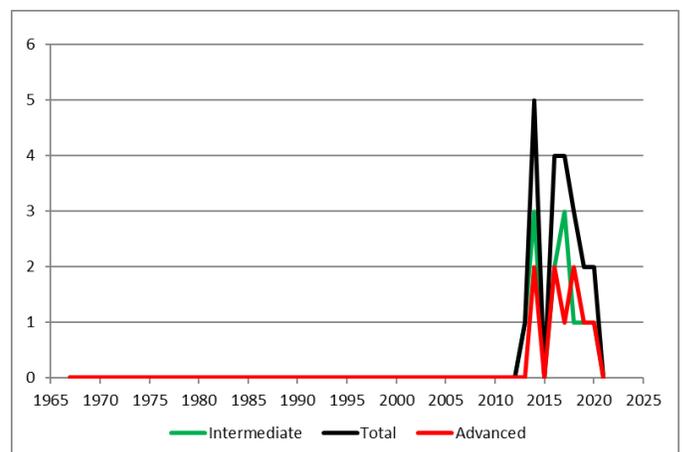
Certificates issued this year:	8
Certificates issued ever:	9



Target NEO Observing Program

Coordinator Names: Dolores Hill and Carl Hergenrother

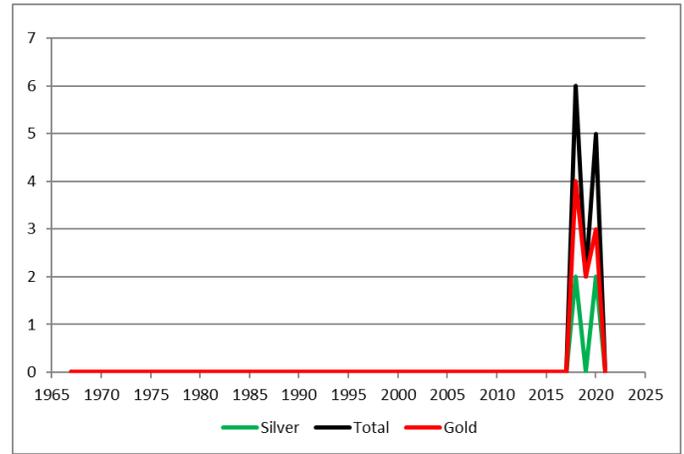
	Intermediate	Advanced
Certificates issued this year:	1	1
Certificates issued ever:	12	9



Nova Observing Program

Coordinator Name: Raymond Howard

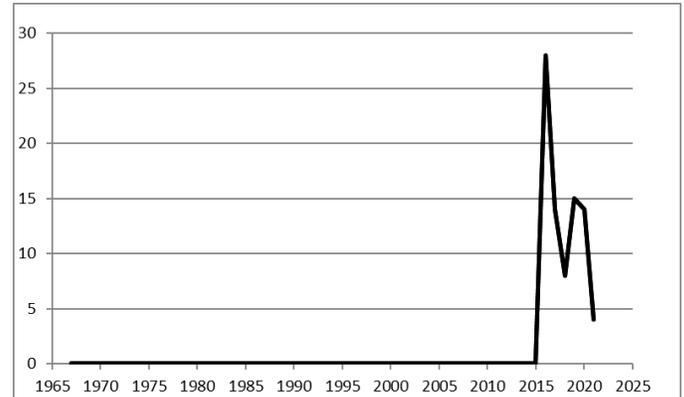
	Silver	Gold
Certificates issued this year:	2	3
Certificates issued ever:	4	9



Observer Award

Coordinator Name: Aaron Clevenson

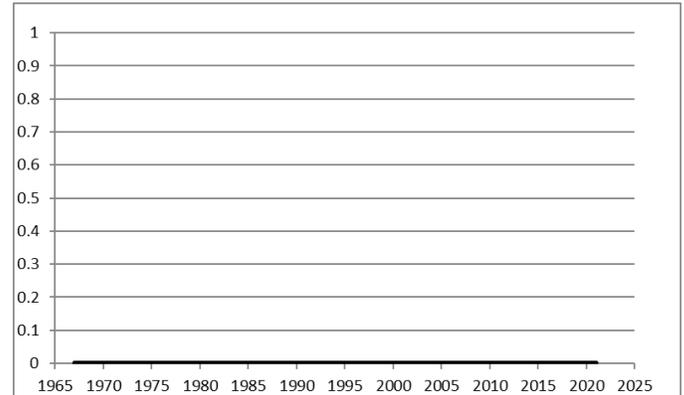
Certificates issued this year:	14
Certificates issued ever:	83



Occultation Observing Program

Coordinator Name: Steve Conard

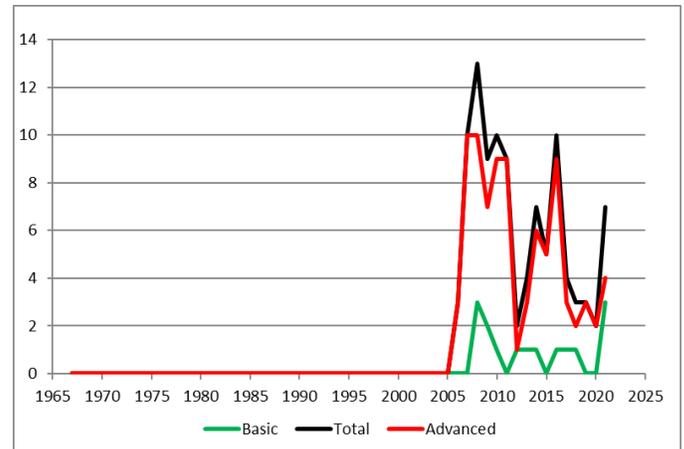
Certificates issued this year:	0
Certificates issued ever:	0



Open Cluster Observing Program

Coordinator Name: Cliff Mygatt

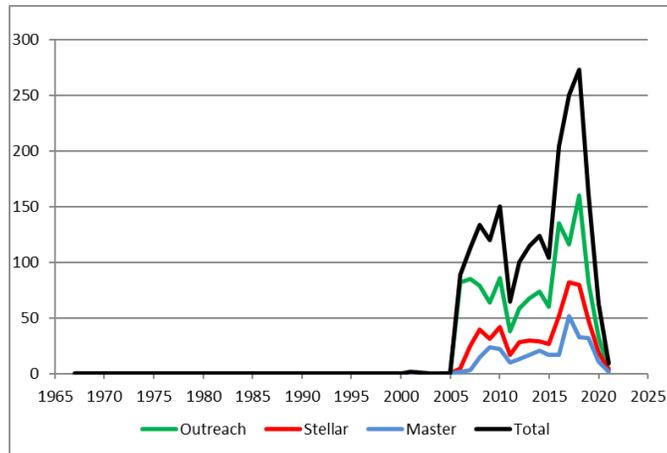
	Basic	Advanced
Certificates issued this year:	0	2
Certificates issued ever:	15	86



Outreach Observing Award

Coordinator Name: W. Maynard Pittendreigh

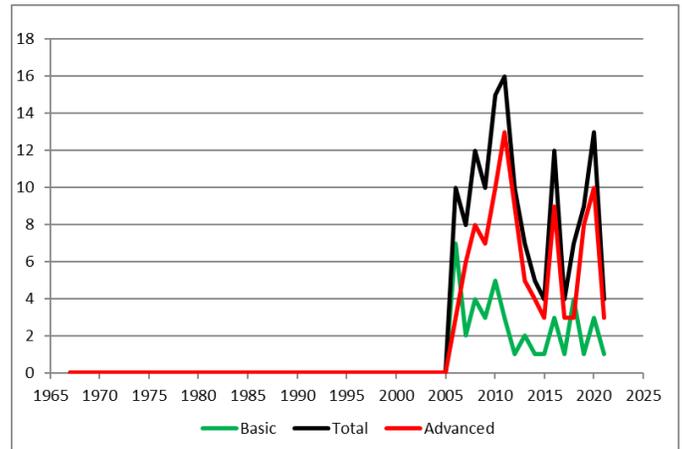
	Honorary	Outreach	Stellar	Master
Certificates issued this year:	0	33	19	11
Certificates issued ever:	4	1225	558	291



Planetary Nebulae (Northern and Southern) Observing Program

Coordinator Name: Ted Forte

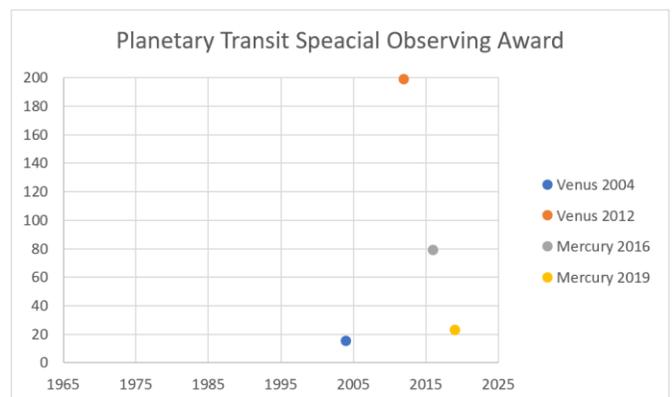
	Basic	Advanced
Certificates issued this year:	3	10
Certificates issued ever:	42	104



Planetary Transit Special Observing Award

Coordinator Name: Aaron Clevenson

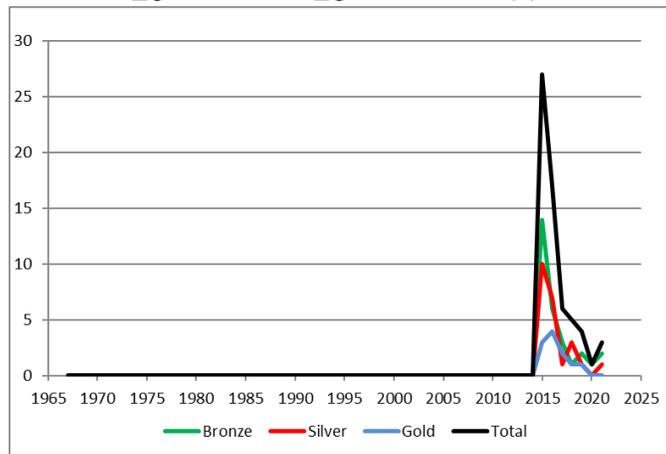
Venus 2004	15
Venus 2012	199
Mercury 2016	79
Mercury 2019	23



Radio Astronomy Observing Program

Coordinator Name: Steve Boerner

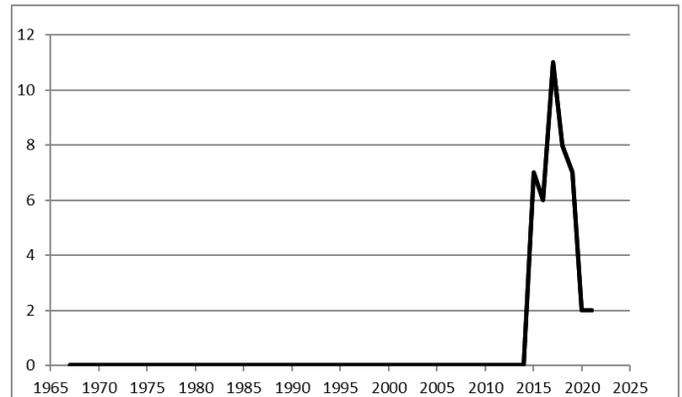
	Bronze	Silver	Gold
Certificates issued this year:	2	1	0
Certificates issued ever:	29	23	11



Sketching Observing Award

Coordinator Name: Cindy L. Krach

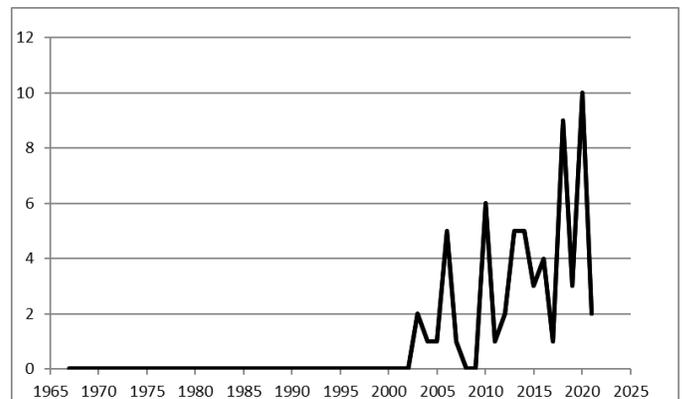
Certificates issued this year:	2
Certificates issued ever:	43



Sky Puppy Observing Program

Coordinator Name: Aaron Clevenson

Certificates issued this year:	10
Certificates issued ever:	61

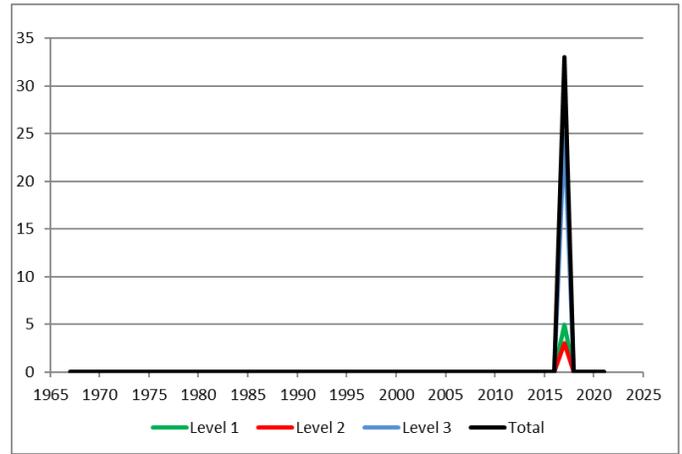


Solar Eclipse – 2017 Special Observing Award

Coordinator Name: Aaron Clevenson

Certificates issued:

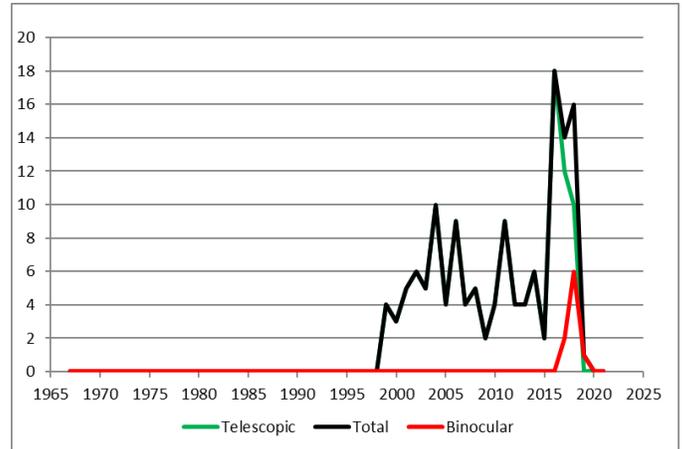
Level 1	5
Level 2	3
Level 3	25



Solar System Observing Program

Coordinator Name: Chuck Allen

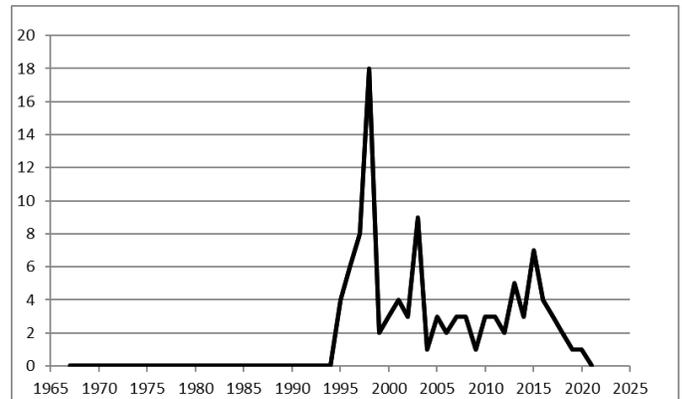
	Binocular	Regular
Certificates issued this year:	7	22
Certificates issued ever:	15	157



Southern Skies Binocular Observing Program

Coordinator Name: Cindy La Russa

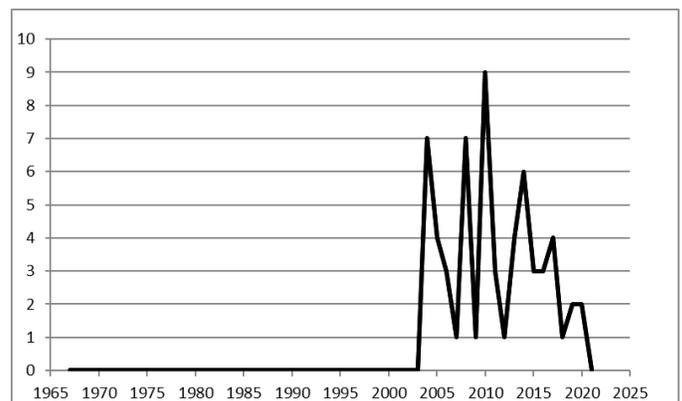
Certificates issued this year:	1
Certificates issued ever:	104



Southern Skies Telescopic Observing Programs

Coordinator Name: Kathy Machin

Certificates issued this year:	2
Certificates issued ever:	61

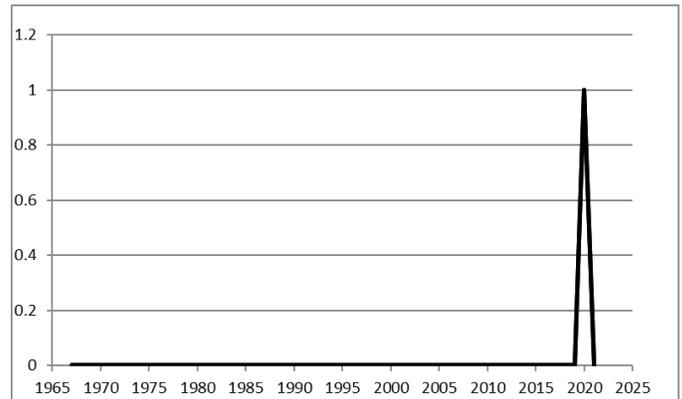


Spectroscopy Observing Program

Coordinator Name: Steve Boerner

Certificates issued this year: 1

Certificates issued ever: 1

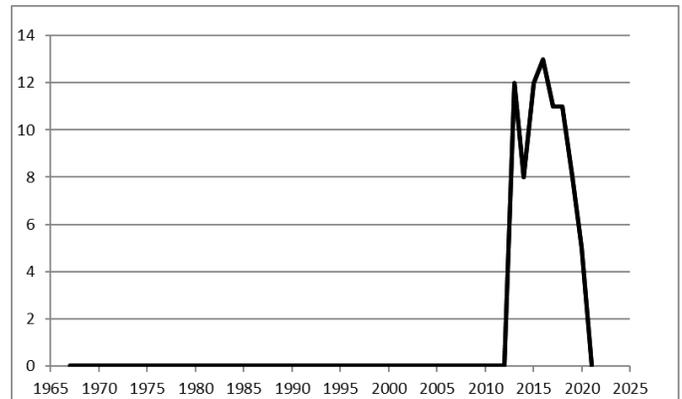


Stellar Evolution Observing Program

Coordinator Name: Bill Pellerin

Certificates issued this year: 5

Certificates issued ever: 80

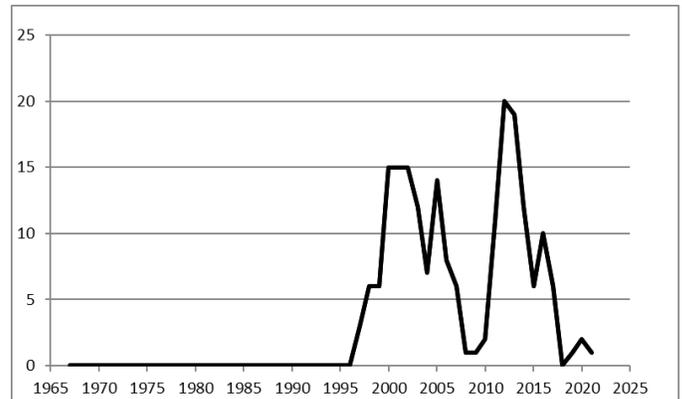


Sunspotter Observing Program

Coordinator Name: Scott Kranz

Certificates issued this year: 2

Certificates issued ever: 199

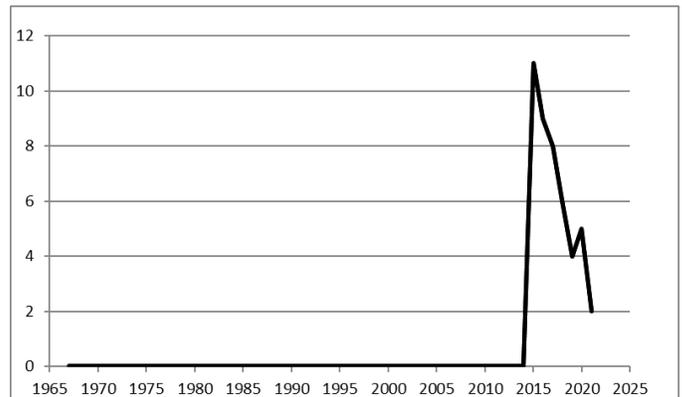


Two in the View Observing Program

Coordinator Name: Bob Scott

Certificates issued this year: 5

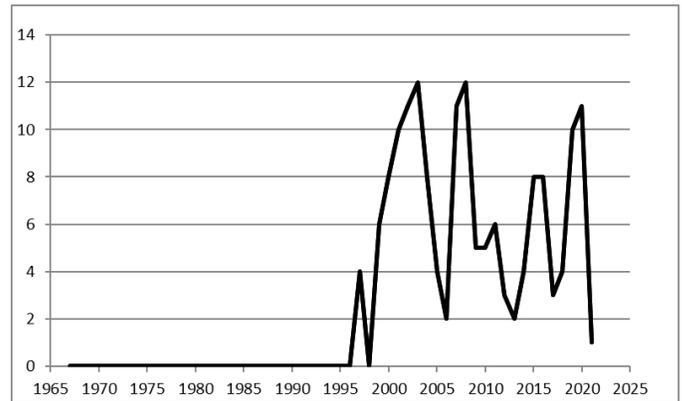
Certificates issued ever: 45



Universe Sampler Observing Program

Coordinator Name: Amelia Goldberg

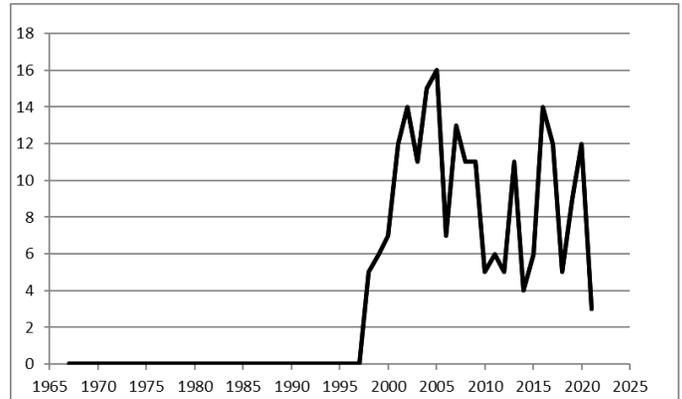
Certificates issued this year: 11
Certificates issued ever: 158



Urban Observing Program

Coordinator Name: Terry N. Trees

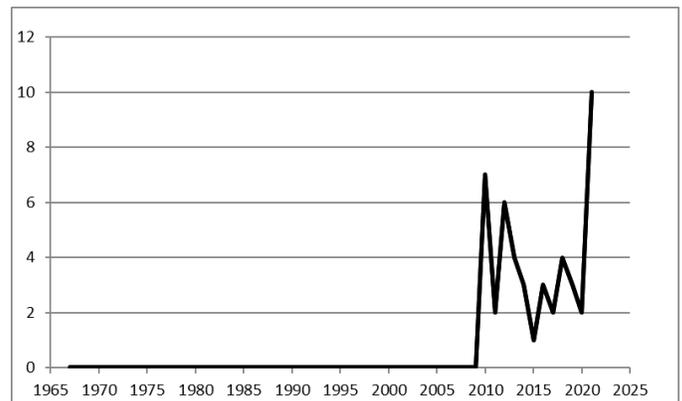
Certificates issued this year: 12
Certificates issued ever: 220



Variable Star Observing Program

Coordinator Name: Robert Togni

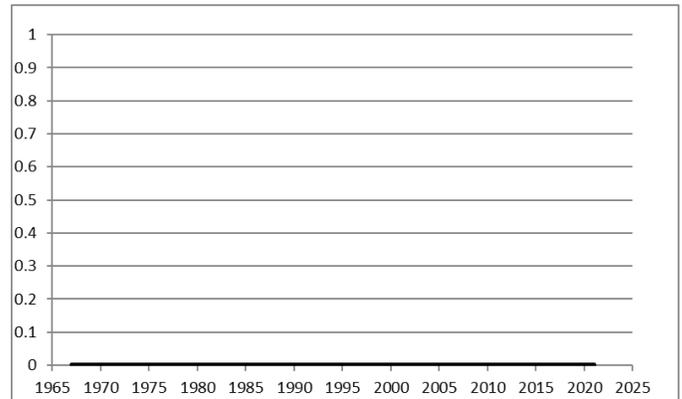
Certificates issued this year: 2
Certificates issued ever: 47



Youth Astronomer Observing Program

Coordinator Name: Maynard Pittendreigh

Certificates issued this year: 0
Certificates issued ever: 0



Astronomical League certifications fall into these classifications:

- Observing Programs – Require observation, count towards the Master Observer Progression, announced in the Reflector Magazine and recorded in the database.
- Observing Awards – Do not require observation, sometimes count towards the Master Observer Progression, announced in the Reflector Magazine and recorded in the database.
- Special Observing Awards – Require observation, designed to commemorate a specific one-time astronomical event, does not count towards the Master Observer Progression, announced in the Reflector Magazine and recorded in the database.
- Observation Challenges – Usually only include a certificate, no pin. Always include an outreach component. These two groups of Observing Challenges have been done:
 - AL Observation Challenges – usually of significant astronomical events.
 - NASA Observing Challenges – usually associated with significant NASA events.
- Observing Certificates – Often require observation, done in support and as extensions of the Observing Programs, does not count towards the Master Observer Progression, announced in the Reflector magazine and recorded in the database.
- 4 downloadable certificates – available to anyone and not recorded in the database or announced in the Reflector magazine.

Many Observing Programs and Observing Awards contain multiple levels and options for completion.

- Those with three levels:
 - Outreach Award
 - Radio Astronomy Observing Program
 - Solar Eclipse – 2017 Special Observing Award
- These include a partial level of completion as well as a complete certification:
 - Asteroid Observing Program: silver and gold
 - Bright Nebula Observing Program: regular and gold
 - Caldwell Observing Program: silver and gold. This is the only example where the two levels count as independent certifications.
 - Comet Observing Program: silver and gold
 - Flat Galaxies Observing Program: regular and honorary
 - Herschel Society: silver and gold
 - Lunar Observing Program: regular and binocular
 - Messier Observing Program: regular and honorary
 - Meteor Observing Program: 6, 12, 18, 24, 30, and 36 hours
 - Target NEO Observing Program: intermediate and advanced
 - Nova Observing Program: silver and gold
 - Open Cluster Observing Program: basic and advanced
 - Planetary Nebula Observing Program: basic and advanced
 - Solar System Observing Program: telescopic and binocular
- Many Observing Programs include options for manual target acquisition as well as device-aided target acquisition.
- Many Observing Programs include options for visual observing as well as imaging.
- Many Observing Programs include options for binocular as well as telescopic observations.