FRIENDS OF TAYLOR OBSERVATORY – NORTON PLANETARIUM
Board of Directors

Taylor Observatory Classroom
5725 Oak Hills Ln, Kelseyville, CA 95451

MEETING Minutes – Thursday, November 10, 2022, 5:15 PM

CALL TO ORDER [Tim] - 5:21pm

INTRODUCTION OF VISITORS [Tim] - No visitors

AGENDA APPROVAL [All] – Motion to approve by David Markham, Dave Velasquez 2nd

MINUTES [Barbara] – Motion to approve by David Markham, Dave Velasquez 2nd

SPECIAL RECOGNITION [Tim] – Tim Gill presented the plaque honoring Bill's years of service. Bill asked Tim to hold onto the plaque until a public event. All board members agreed that the event should be scheduled.

FINANCIAL REPORT [David M.] David reference his email 11/09/2022 including a file "Friends of Taylor Account Transactions" created with the new accounting software. He mentioned that there is a service charge of $5 per month with the Internet account. A discussion followed about how to avoid such charge, with no decision made. Internet account balance- $52,431.34; Umpqua account $3,682.83.

Bill Haddon asked why our Internet account interest rate is so low. Bill H. to send David M. what account he and Barbara have at a higher rate. David Markham to look into that. David Velasquez motioned, Bill Haddon 2nd

Google account was linked to Bill Haddon's debit card and was cancelled. We no longer have a card for minor expenditures. A person's name must be associated with a debit card. Should debit card be in President's name? Discussion tabled until next meeting.

BUSINESS ITEMS

1) President's Report (Tim)
   a. FOTO Bylaws- **Bill Haddon suggested we change the bylaws designation of officers, ie… Treasurer to Treasurer/CFO; President to President/CEO. Bill mentioned other items that are required based on California 501c requirements. 3rd item was conflict of interest having an LCOE employee being a member of FOTO board.**
      Dave Velasquez to will look into these and send requirements to Tim Gill and to Emily.
   b. Another item of interest came up after Michael agreed to purchase the Prism mirror needed for collimator prism. Bylaws do not include spending limits or having associate members such as Michael K. who wish to support but not be on the Board.

2) FOTO Window to the Universe Events and other special events (All)
   a. Phil Scherrer has volunteered to speak on solar issues
   b. Potential speaker: Jessica Ball, USGS California Volcano Observatory
   c. Prof Stephen Kane, UC Riverside, who spoke to us twice on exoplanets. Prof Kane has added the planet Venus to his research interests and has been a player in convincing NASA to re-start a program involving Venus.
      Bill Haddon mentioned SETI as a topic and Near Earth Objects (Bill and Janis Traub presented NEOs a few years ago)

No event is planned for December and no dates were finalized for future events. Michael suggested that we outline the events with fixed dates for next year. Need to identify a board member to contact possible speakers and finalize dates.

3) Discussion: Are we meeting the appropriate level of education and enjoyment for the majority of people in Lake County (Barbara)
Barbara feels that perhaps our lectures may be at too high a level for many individuals and may be the reason our attendance is low. Suggested we included sky maps for guests and more interaction. Board members disagreed saying that guest did interact and we have been filled to capacity before the COVID cut back of events. Majority of Board felt we just need a little time.

4) LCOE/Lake County Schools Update (Jennifer, Angelo, and Eduardo)
   a. Please see Attachment A for a report from Jennifer Kelly

5) Press Democrat Article (Eduardo)
   a. Please see Attachment B for correspondence between Eduardo and Kathleen Scavone at the Press Democrat.
   All board members read and approved of the article. Eduardo A. mentioned that a photographer will come to the next Window to the Universe Event. November 19th.

6) Telescope Maintenance issues (Haddon, McKeown)
   a. Missing controller for the Atlas mount (for Optical Craftsman planetary scope) **Eduardo A. to look for the controller.**
   b. Broken button on hand controller for the Teeter Dob. **Bill Haddon to email Teeter to get the controller fixed or replaced. Bill and Michael to meet during week to look at telescopes in preparation for the November 19th event.**

7) Solar diffraction grating project for students -- proposed by Debra Scherrer. (Haddon)
Bill H. to send information to Jennifer Kelly

OTHER NEW BUSINESS

Board members discussed starting earlier during the winter months. Barbara McIntyre motioned to start at 7pm; Dave Velasquez 2nd. No objections.

Mystery of the Christmas Star will be shown the Friday after Thanksgiving, starting at 7pm. Barbara to send Eduardo the write up for event.

H.S. Volunteer program to start after the New Year. Angelo Parisi will provide the training.

ADJOURN – 6:50pm - David Markham motioned to adjourn; Dave Velasquez 2nd

(Attachment A) 11.10.22 Board meeting info from LCOE Taylor Observatory, Planetarium & STEAM Center:

- The new projector in the planetarium is up and running! YAY! Angelo can give you the details of its quality differences from the old projector. Angelo, will you add that info please? Also, info about the work you have done cataloging the available videos.

- There have been sewer issues from one of the trees growing roots into a pipe right in front of the building. The tree and bushes in that area are being removed. We are considering landscaping for that area and are open to suggestions. Rock garden (to show off rocks from different areas? Bird bath? Model of Mars or moon landscape?
- We are having issues with the augmented reality sand table computer downloads and at this point, the sand table is not available for field trips.
- Field trips and outreach to schools are being booked and we get busier with the passing of each month!
- We have a new exciting high school outreach in the works, which involves engineers visiting the classroom to teach Arduino Robotics Class. This Taylor outreach is in collaboration with Reynolds Systems, Inc. A flier will be provided at the next board meeting.
- The parking lot solar system measured out and painted by Angelo, has been a big hit on field trips!

Thanks,
Jennifer

(Attachment B)

1. **Did the planetarium projector get repaired?**

The planetarium is now operational. It has been upgraded to have a new projector, planetarium software, and a new sound system. The planetarium now projects in full HD, has full surround sound, and a planetarium software that allows us to explore the Earth and the Solar System like never before. The planetarium will be a brand new experience.

2. **What are all of the duties you fulfill at Taylor? Do you give some classes in Spanish? Have you always been bilingual?**

My main duty as an Observatory Assistant was to support the Observatory Coordinator/STEAM Specialist in whatever direction they believed Taylor should go. I worked with six coordinators/specialists over the past ten years to expand what Taylor had to offer. It was a wonderful experience to work with such a variety of people with different skills and knowledge. Our observatory went from offering mostly field trips surrounding astronomy to field trips surrounding STEAM education and outreach to schools. I mostly ran the planetarium or outdoor activities during field trips. My favorite memories have been running the planetarium during CMAS's 5th grade Science Day. Giving an interactive tour of the night sky to a large percentage of fifth graders in the county where they could let their curiosity guide their experience felt great. My greatest contribution to Taylor has been the increased variety of planetarium shows, expansion of the robotics program, and maintaining a form of continuity between transitions between coordinators/specialists. Planetarium shows are one of the most expensive things that Taylor can buy. Each planetarium show can cost between $5,000 and $10,000. I searched for planetarium shows that were free or inexpensive and converted them to a format our planetarium could run. I also adapted the planetarium projector to be able to show the planetarium shows that we can rent

for $30 a week. During my time at Taylor, I worked on running robotics classes for students and teachers. In 2020, Taylor budgeted money for expanding robotics, and I looked at increasing robotics in elementary schools. This came at the perfect time since the pandemic prevented field trips and only allowed for school outreach. I visited dozens of classes throughout the county and gave students a taste of robotics. My other contribution would be my knowledge of what each of the coordinators or specialists has done so that the next person can expand on their knowledge.

My work in attempting to encourage more Spanish events has been one of my biggest failures at Taylor. Every time I have attempted these events, I have usually had no one show up or at most five people. I was never able to do great advertising in the Latino community.

3. **Talk about your background at Taylor and how long you have been working and/ or volunteering there (Were you a paid employee of LCOE?) IE, what got you started, etc.**

I became involved at Taylor in 2011, when I won a telescope through the Friends of Taylor Observatory's Future Astronomer program. The members of the Friends of Taylor Observatory were and continue to be excellent mentors, and I am very thankful for everything they have taught me. Barbara McIntyre, the observatory coordinator at the time, suggested that I participate in the high school volunteer program and volunteer at the observatory. She taught me so much about the planetarium, the field trips, and robotics, and many of the programs that she started would get expanded upon and improved over the years. This would eventually lead to a paid job through the Lake County Office of Education as an observatory assistant in 2013. In 2015, I joined the Friends of Taylor Observatory as a board member. In September 2022, I transferred to UC Davis to complete my BS in Geology, and I had to leave my position as observatory assistant. I am currently still involved at Taylor through the Friends of Taylor Observatory.

3A. **Do you still interact with students at Taylor and teach robotics?**

My last time I interacted with students was in September when I did outreach to a middle school STEM class with robotics. Currently I am mostly working on finishing an Earth Science display to go along with the augmented reality sandbox table that we use to teach students about the water cycle and California's geography. If I am not doing summer field work I am open to helping out at Taylor as a volunteer.

4. **Will the 'under the dome' telescope be in use soon for events to the public?**

FOTO and LCOE are planning on replacing the 16-inch telescope that is currently under the dome. The telescope will be replaced with one much better suited for astrophotography and more useful for research. The goal would be to have the telescope under the dome be capable of capturing long-exposure photographs to display them in the classroom at Taylor or at one of the schools in the county. This way, we can offer Lake County high school and community college students the chance to attempt sky survey research similar to the ones used to find comets and asteroids. We are not getting rid of the thrill and

memory of looking through a large telescope at objects. We will have our 18-inch telescope, as well as a variety of other telescopes, available to view our public events.

5. **Would you care to share anything else about your background? How long have you lived in Lake County, etc, or anything else?**

My parents immigrated to the United States from Mexico in order to seek a better life. My parents have limited education, and only my father is able to speak and read English. Both of my parents have worked in the pear sheds, and my father has been a vineyard field worker for over 30 years in Lake County. My father has had a great impact on my life by teaching me the value of hard work and education. My father had to drop out of elementary school and go to work taking care of livestock. Even though he had no formal education, my father tried to read whenever he could and liked to learn about all kinds of stuff. Growing up, my father would encourage my sister and me to read as much as possible. He would take us to the Lakeport library and encourage us to check out as many books as possible. This helped me learn as much as possible from books. I grew up and lived in Kelseyville for most of my life, except for a few years in Mexico. That experience allowed me to go to school in Mexico and learn how to read and write in Spanish.

6. **Is your title VP of Communications and are you also a board member? How do you prepare for lectures?**

I am currently the Vice President of Communications for FOTO. I am in charge of managing the email newsletter, event advertisements, and the social media pages. My primary responsibilities at FOTO have been event and technical support. During the Window to the Universe events, I will usually run the planetarium or one of the telescopes. The most memorable experience for me would be running our 2017 solar eclipse event. We had hundreds of people show up, including students from the local school.
I usually choose topics I am familiar with. I love topics involving space exploration and the solar system. I try to learn as much as possible about the topic by writing down notes and practicing my talk.