

**MINUTES**  
**SARA Board of Directors Meeting**

(See Attachment 1 for Agenda)

Note: Board actions recorded in *italics*.

TIME: 9:30 AM (EDT), November 11, 2023

PLACE: Florida International University, Miami and Zoom

PRESENT: Board Chair T. Oswalt (ERAU); Board Members: G. Henson (ETSU), J. Provencal (UDEL), M. Leake (VSU), R. Berrington (BSU), E. Perlman (FIT), B. Murphy (Butler), K. Williams (TAMUC), W. Keel (UA), T. Hillwig (Valparaiso), R. Alonso (IAC), J. Webb (FIU), S. Gilliam (ERAU), M. Ajello (Clemson), A. Lovell (ASC)  
Guest: P. Mack (ACE), James Hodari-Sadiki (ASC), Yan Fernandez (UCF)

**AGENDA**

- I. New Board Member – Steve Gilliam (ERAU)**
- II. Review/Approval of the April 22, 2023 Board Meeting Minutes**
- III. SARA Observatory Directors’ Reports**
- IV. ACE**
- V. SARA Business**
- VI. Other Business**
- VII. Next Meeting Date and Location**

**I. New Board Member – Steve Gilliam**

Oswalt welcomed members to the meeting and introduced Steve Gilliam, the new ERAU Board member. He serves as the ERAU observatory director and the lab director/coordinator for astronomy.

**II. Review/Approval of the April 22, 2023 Board Meeting Minutes**

Henson had previously emailed the minutes to the Board. He asked for and received a couple of minor corrections which he would make to the minutes. Keel then made a motion to approve the minutes with a second from Webb. *The minutes were approved unanimously.*

**III. SARA Observatory Directors’ Reports**

**A. SARA-KP**

Henson had emailed the Board his report (Attachment 2) and summarized it, focusing on the recent shutter troubles for the main ccd camera. He noted that aluminizing the mirror is the

main remaining task for now. The only other significant to-do item for ACE is the all-sky camera which has low priority given our access to the mountain cameras. Henson listed all the fixes and improvements that ACE has recently done up to and including the new PZT dome camera. Keel stated that he had standard star observations in October which document the flux loss due to the poor condition of the primary mirror, down 15% in B band from his previous measures. It was noted to ask P. Mack about a cost estimate and to schedule the task for the next summer shutdown.

## B. SARA-CT

Hillwig summarized his brief report (Attachment 3). He noted that observing had been fine until the hacking incident for CTIO which shut down all external access. He described the problems with communications infrastructure at CT and the huge growth in remote facilities there. All of this has added to the complexity of the resolution to the problems. P. Mack is serving as the primary contact with CTIO staff as they are limiting contacts to one per facility. He has a meeting set up for next week but Hillwig stated that CTIO isn't willing to open up VPN connections yet and he has no knowledge of any timetable that they may have set. He also commented on turnover and qualifications issues for their communications staff as well.

Henson commented on the need to repair/replace the spectrograph camera. P. Mack is aware of the need but has not been able to investigate the camera problem or possible replacement cameras. Hillwig added that the mirror re-aluminization is also on hold and progress on that can't proceed until the entire problem with communications is fixed.

## C. SARA-RM

Murphy summarized his lengthy report (Attachment 4). He noted the major dome and mirror cover issues leading to the extended shutdown. P. Mack will address them as he is currently at La Palma and will join the meeting later. Murphy commented on autoguiding, some periodic tracking error, and the west HA limits. There was general discussion about some solutions that observers could use and the best approaches to work around such issues.

The condition of the mirror surface is critical; Keel noted it was last aluminized in 2019 and covers have not been working along with the long period of volcanic activity on the island. It is scheduled to be done during the current trip while ACE is there. Mack has new hardware with him so he can install new mirror cover actuators to protect the surface. The dome shutter gear box should also get repaired this trip, but that may not fix all the shutter problems. Murphy also noted that communications with ORM staff, billing office, etc. have greatly improved.

Murphy's final comments were about the dome camera access and notifications for observing help, if needed, as he outlined in his report. Williams asked about the best ORM weather station to use. Murphy noted that the JKT position is highest on the caldera so using those closest to JKT is best, but observers should always use caution if the weather is marginal.

**James Hodari-Sadiki joined meeting from ASC as a new faculty member there.**

#### IV. ACE

P. Mack joined the meeting at 11:20 am. He described Kitt Peak first, noted perhaps a rodent problem and that the building overall needs some maintenance as the flooring, etc. showing its age. He stated that pest control only goes up every couple of months, but contractors can be expensive in going out to KP from Tucson. Henson asked about a spare shutter for the camera as only a single shutter was available for the replacement. Mack will look for other possible vendors. There was discussion about a possible replacement for the Leach cameras as they are old with no spare electronics components and not likely repairable if they fail. There was some discussion about going with newer technology chips; Henson and Mack will look into it, but could always go with Andor as we already have working systems and familiarity with them. Henson asked about the mirror aluminization and Mack stated he'll need to get a new quote from the Tucson lab that is probably cheaper than KP. We do have access to the KP crane so we can plan to schedule it for next summer.

The CT discussion centered on the current communication shutdown. Mack thinks our delay is because we need access from "any" IP address because of our multiple users. CT staff see that as a security risk because they want to limit outside access to specific users with known IP's, etc. He will be having a conference with them in the next day or two and should have more information and perhaps a plan after that. The aluminization for the mirror has at least been scheduled for February. Mack does not have a cost estimate but he will get one for the budget. Henson asked about the spectrograph camera and Mack suggested a ZWO model camera for the replacement. He would need to add a small shutter to cover the fiber end for dark frames and make a new adapter for the mount. This could be done in Tucson and possibly tested at KP. Potentially could have camera and new mounting hardware ready for February trip when mirror is done.

The RM dome shutter has serious issues. The mirror petals are also a long-standing problem, but Mack has a fix for that and the parts with him at RM now. For the dome shutter, he has parts coming this week (customs could be an issue), but he is uncertain about the gear box replacement as it was a non-standard unit. There remain continual problems with customs and getting items through in a reasonable time frame. Overall the repair cost has grown as thousands of dollars in parts is now needed, plus his travel and labor time (for as long as it takes). He will have to take things apart, maybe find new problems as the work progresses, and possibly work with local machine shops for small parts and/or modifications. Mack noted there may be other issues with the dome (it is ~40 years old) as it has also been neglected for much of its lifetime. His best guess is maybe 2 weeks to get it operational (but that assumes no new surprises) but he offered no guarantee.

Mack left the meeting at this point.

## V. SARA Business

### A. Budget report

Oswalt presented the ERAU budget status report (Attachment 5 ) from June 30, 2023 and noted he was still trying to confirm received dues from all members. The report states an available balance of \$689K, but he noted the numerous outstanding or encumbered expenses in the budget since June. He also commented on some conflict with the ERAU sponsored programs office concerning administration of the SARA account, currently for “free”. The Board was in general agreement that it would not be unreasonable to pay some fee for the service which perhaps Oswalt could negotiate. Oswalt then shared with the Board his personal spreadsheet tracking the budget (Attachment 6) which includes his estimate of outstanding or committed bills to pay along with the annual recurring costs and discretionary commitments already approved by the Board. **His estimate for the ending 2023-24 FY balance is ~\$336K.** He noted there may be \$30K in outstanding dues still to come in this year and that we will have new dues next summer, but not by the end of June 2024.

### B. Proposed budget for remainder of FY23-24

Oswalt went over the budget items with the Board as he shared his spreadsheet. He noted especially a late billing from NOIRlab for monthly charges/fees backdated to the pandemic closure period as these have only recently begun showing up. He is also still getting AURA retroactive bills, but has listed the pre-pandemic annual costs for comparison. Oswalt asked the observatory directors to list “required” discretionary funding or at least the most likely expected expenses for this fiscal year (ending in June) for each observatory. There was general discussion over the items for each observatory with the spreadsheet updated as needed. The changes resulted in an estimated ending fiscal year balance of ~\$320K, versus the current annual dues of \$202,500.

Oswalt then described the spreadsheet section showing the projection of the budget with deficit spending. It stays in the black for at least the next 4-5 years over most scenarios and that assumes discretionary spending stays at the same rate. It was noted that with the potential loss of members, the potential for large unexpected costs, and the potential for significant savings, the rate of deficit could easily go up or down. Thus, we can certainly benefit from adding at least one new member and have the available observing time to accommodate such. We are currently at 13.5 dues paying members, have a healthy budget, and have the ability to fund what we need when we need it.

At this point Oswalt called for a motion to approve the budget. Gilliam moved to approve the budget as proposed above and indicated in the spreadsheet with a second from Webb.

*The Motion was approved unanimously.*

Oswalt asked for a more formal statement of how to handle the SARA financial account for the present. He quoted the sponsored programs office was seeking a fee of \$7500/year, only about 1% of the reported June balance. Gilliam moved (with a second from Hillwig) to pay ERAU a \$7500 service fee to maintain the SARA account for the present (23-24) fiscal year.

*The Motion passed unanimously.*

Oswalt then reminded Board members to look at a more permanent solution for a host financial institution as we will need to revisit the issue this spring. He is concerned that the

ERAU administration could change its mind about its commitment to SARA and he noted that he will also not be around forever. Although not a formal requirement, it is more efficient for the chair to have a connection with the host financial institution.

#### C. Reminder on FY24 dues

This was addressed in the budget report previously.

#### D. through H. Status of member institutions

Lovell at ASC went first with the status of ASC and introduced a new faculty there, James Hodari-Sadiki. He will be the only observational astronomer at ASC for the foreseeable future. As faculty traditionally have a heavy teaching load and other duties, ASC will not typically be able to use their full-time allotment. They have only undergrad students to assist which must be supervised by faculty while observing. Financially, they have an endowment to cover the dues and Lovell will remain connected and involved with the program even though she will soon officially retire.

Murphy noted that he will officially retire next August, but Butler will remain in SARA. They have a new hire, Aarran Shaw, but Murphy will also remain involved and continue with his research using SARA along with Xianming. Butler is also very financially stable so they are remaining as long-time members. They will continue using their full-time allotment. There will need to be a new JKT director to replace Murphy and a new Board member appointed from Butler. Both should be in place well before Murphy's retirement.

Leake described the status of Valdosta which was able to pay dues for the current 23-24 fiscal year. The astronomy program has been combined with a new department now, but essentially only she and Rumstay (in his emeritus status) have been observing with SARA. They have had to terminate their astronomy degree program, but they do have a young astronomer in their department now. However, she does not think he has any plans to be actively involved in observing with SARA. Thus, although she has not officially tendered her retirement yet, she was very pessimistic about the chances to continue membership in SARA after this fiscal year.

Keel stated that Alabama wants to stay involved with SARA, mainly as a recruiting carrot for a new hire. They could potentially go for an observational researcher as they need help with local courses and campus facilities and need to have more diversity in the program. He won't know for sure until the candidate list gets finalized and an offer is made, etc.

Oswalt described the current ERAU situation and his frustration with new financial procedures which have increased his workload. The internal friction in the department has lessened, and they have enough persons to utilize their SARA time with sufficient need. He noted the new problem with sponsored programs handling the SARA account (claiming it wasn't a "research" account) but the Board has agreed to pay a service fee for maintaining the account and the fee is much less than typical service rates for accounts of this nature. Oswalt opened this issue up for discussion to see if others had better suggestions or less costly

approaches for financial management. He also noted that he is not that far from retirement so a new “chair” as well as most likely a new “financial” institution should be planned for as early as possible. We will need a more stable situation and a smooth transition in leadership and all recognized that those individual members with seniority and institutional memory are dwindling as well as some long-term member institutions. It was suggested that newer and younger institutions may need to look towards stepping up to take the reins moving towards the future of the consortium. There was broader and more general discussion on the direction of small telescope research overall and about what potential new observers using them may or may not need for success.

## **VI. Other Business**

### **A. Discord/Slack status**

Berrington led a discussion on social media use for SARA (current Discord channels versus Slack, etc.) highlighting the pros and cons of various platforms. There was discussion on the purpose for such platforms, what do observers need, what types of communications are best and for what purpose, what would most users prefer or want for such communication (as compared to simple emails, for example)? The discussion resulted in most leaning toward Discord for now and for what purpose versus emails, list-server, do we want archive, ease of access, etc. This led to the following motion by Perlman with a second by Gilliam:

Move that SARA adopt Discord for wide communication use concerning observing and observatory operations.

There was some brief further discussion and comments on the motion before Oswalt called for a vote. *The Motion passed with approval from all except 3 members who abstained.*

Berrington agreed to maintain the Discord channels and will help those in need of assistance in using it. A few members indicated they were not the most comfortable in using such media platforms but were willing to try.

### **B. UCF inquiry**

Perlman invited Yan Fernandez from the University of Central Florida to join the meeting as they have an interest in potentially joining SARA. Yan described UCF astronomy and provided some details relevant to their interest. They have numerous planetary scientists (~25 faculty and 25 grad students) but they do not have institutional access to any ground based optical telescopes. They do lots of comet/asteroid work; a good fit for our small telescope sizes. Potentially 6-7 faculty could have uses for the telescopes. It is likely they would primarily do photometry (comets & asteroids would be too faint for echelle spectrograph) but such observations are a very good fit for minor planet work and time series work.

Oswalt gave a spiel on SARA and made a comparison of SARA to other consortiums in regard to the cost/benefit ratio. Perlman noted that instrument scientists at UCF might also help in the long run. Lovell has had positive interactions with Yan and with others in Florida that are familiar with the UCF program and people. The general consensus of the Board was positive and Oswalt described the typical timeline and need for a formal proposal for the Board to review along with the financial commitment/guarantees. Yan stated that he will communicate with his colleagues

and look for potential buy-in fund sources as well as a dues commitment. They might possibly be able to put a proposal together by the spring meeting time.

Yan left the meeting and Oswald asked if he should more broadly advertise (through AAS, etc.) for additional members. There was a brief discussion on the number we might seek, given the projected future budget in the spreadsheet. The consensus was it wasn't too early to be looking given the uncertain status of several current members. Thus, Provencal made the following motion with a second by Gilliam:

Move that the Board chair place advertisements with the appropriate organizations and/or media seeking potential new members for SARA. *The Motion was approved unanimously.*

## **VII. Next meeting Date and Location**

The spring meeting will be remote on Zoom. The date and choice of host will be decided later. All present at FIU thanked Webb for his on-site hosting and his excellent hospitality.

The meeting was adjourned by acclamation at 2:15 pm.

Gary Henson  
Secretary, SARA Board of Directors

### Attachments (to original only):

1. Meeting Agenda
2. SARA-KP Observatory Director's Report
3. SARA-CT Observatory Director's Report
4. SARA-RM Observatory Director's Report
5. ERAU Budget Status Report
6. SARA FY 23-24 Budget Details Spreadsheet