

## **PISCES Board of Directors Meeting Minutes**

11 May 2016

9:30 a.m. Hawaii Standard Time

### **I. Call to Order/Roll Call:**

A quorum being present, the meeting was called to order by PISCES Board Chairperson, Henk Rogers.

Other members in attendance included:

- Robert Kelso, Vice Chairperson
- Governor George Ariyoshi
- Hoyt Davidson
- Mary Alice Evans (representing the Director of DBEDT)
- Galen Ho
- Don Straney
- Patrick Sullivan

Also in attendance:

- Office of Aerospace Development: Jim Crisafulli and Jeff Pang
- Deputy Attorney General Gregg Kinkley
- PISCES staff: Christian Andersen, John Hamilton, Megan Moseley, Rodrigo Romo
- Others: Stephan Day, Dan Bland

**II. Introduction of New Board Members:** Chair Rogers welcomed Patrick Sullivan, Chairman and founder of Oceanit, to his first PISCES Board meeting. Chair Rogers also noted that this would be Governor Ariyoshi's last Board meeting prior to the end of his term on June 30, 2016. Chair Rogers thanked Governor Ariyoshi for his years of dedicated service on the PISCES Board.

### **III. Approval of Board meeting minutes:**

- Board Meeting – January 12, 2016: Draft minutes were circulated prior to the meeting. Ms. Evans made a motion to accept the January 12, 2016 minutes as submitted. Mr. Ho seconded the motion, and the Board voted unanimously to accept the minutes.
- Board Meeting – March 8, 2016: Draft minutes were circulated prior to the meeting. Ms. Evans made a motion to accept the March 8, 2016 minutes as submitted. Mr. Ho seconded the motion, and the Board voted unanimously to accept the minutes.

At this point in the meeting, Chair Rogers noted that PISCES is facing an “existential crisis” as its future is very much in question. Chair Rogers made a motion to take Item V, Strategic planning for FY18, out of order, in order to address this priority topic. Mr. Kelso seconded the motion, and the Board voted unanimously to take up item V, Strategic planning for FY18.

### **V. Strategic planning for FY18:**

Chair Rogers referenced the statement that was included in the Board packet in which he noted that PISCES is in crisis; that PISCES' supporters in the Legislature proposed merging PISCES with DBEDT's Office of Aerospace Development; and that the State Senate Ways and

Means and House Finance Committees did not concur with the Administration's supplemental budget request for PISCES in the FY17 State budget. He asked the Board to think about the future of aerospace as an industry in Hawaii and PISCES' role as a part of the entire aerospace enterprise operating statewide. Major concepts in the ensuing discussion included:

- Chair Rogers' vision for aerospace in Hawaii which includes PISCES as part of an "umbrella organization" for aerospace and space exploration (similar to the role NASA plays at the national level).
- Formation of an "umbrella organization" for aerospace organizations in Hawaii to foster collaboration in place of competition and optimize use of resources.
- Important factors to consider include: (1) NASA's view of Hawaii as a potential testbed for future aerospace development initiatives (and the resources NASA could contribute to advance these possibilities); and (2) aerospace activities that can optimally be conducted in Hawaii.
- Governor Ariyoshi noted that it would be important for aerospace agencies, companies, and other organizations that would like to partner with our State to advance various aerospace initiatives to convey this interest and potential to key government and industry leaders in Hawaii.
- Mr. Crisafulli noted that DBEDT's aerospace office is working on a strategic development plan for aerospace that will highlight the "low-hanging fruit" in this industry for Hawaii. He also noted that OAD will be sponsoring an "Aerospace in Hawaii Week" in October, when NASA, other aerospace agencies, and the private sector will "make the case" for partnering with Hawaii in advancing this strategic growth industry for Hawaii.
- Chair Rogers noted that on August 28, six people will emerge from the HI-SEAS habitat (after spending one year in this facility), which will provide an ideal opportunity to publicize/celebrate Hawaii's leadership in aerospace and help launch the "beginning of the future of space exploration in Hawaii".
- Mr. Kelso noted that there's been "no influential support for what PISCES does at the Executive and Legislative levels" over the past two years, largely because their "metrics for success" (industry creation and high technology jobs – as opposed to applied technology research) have not been addressed. Discussions have begun to explore opportunities to grow emerging aerospace markets, with a small complement of applied research to help maintain the collaborative partnerships already established. While endeavors such as robotics and manned habitats are interesting, they will not meet the "industry-creation and high tech job creation" envisioned for PISCES by the legislature. However, there are emerging markets such as unmanned aerial vehicles, small satellite launch capabilities, basalt rebar development, and space tourism, which do offer economic development opportunities and are seen as important candidates by the Legislature for growing the aerospace sector. Mr. Kelso recommended that these economic development areas collectively should be PISCES' primary focus moving forward.

- Dr. Sullivan discussed programs supported through Oceanit, and the role that private industry (as opposed to NASA) is playing in helping launch new aerospace initiatives. He advocated for a “department of aerospace” at the University of Hawaii, which could help train students to develop/engage in new aerospace enterprise. He also advocated for a “mind to market” approach that already has resulted in the building of facilities in Hawaii that can address global markets (developing a mindset for engaging in a global conversation on space). The aerospace industry is currently being “rebuilt” (with less emphasis on government agencies and greater focus on private industry), and Hawaii can contribute to this transformation.
- Mr. Bland (co-founder of PISCES and former CEO of JAMSS America) noted that the biggest challenge in advancing the PISCES vision is adequate seed funding to support marketing efforts that can broadcast this vision and attract commercial investments.
- Mr. Ho noted that this needs to be supported with a “value proposition” that is “world centric” – having something that somebody wants that in turn will attract investments/wealth from around the globe.
- Mr. Romo presented samples of sintered regolith (pavers from PISCES’ landing pad) that were developed from Big Island crushed basalt and could be used for local construction, sparking a discussion of the possibilities of launching a manufacturing enterprise and the associated risks of doing so.
- Chair Rogers led a discussion on alternative ways to fund/advance PISCES, including solicitations to individual entrepreneurs to launch public-private partnerships that could provide long-term development support. Conversion of PISCES from a government organized/run institution to a private sector initiative could present legal issues, including the need to address intellectual property rights.

The Board did not generate specific actions to resolve the future for PISCES or arrive at a new strategic direction for the agency. It was determined that information about the Administration’s intent with regard to the continuation and funding support of PISCES is key to the formulation of a new strategy. The Board recommended that Chair Rogers speak with DBEDT Director Salaveria prior to requesting a meeting with Governor Ige to clarify the Administration’s plans for PISCES.

#### **IV. Review of Legislative Decisions relating to FY17 PISCES budget:**

Chair Rogers noted that Mr. Kelso’s and others’ comments during the strategic planning discussion addressed the budget, and that no additional funding was appropriated by the Legislature for FY17. Chair Rogers referred the Board to the documents on funding and budget provided to the Board.

#### **VI. Board Review and approval of PISCES MOUs:**

Two (2) MOUs were presented to the Board for their consideration and approval.

- Ena Media MOU: The MOU agrees to establish a joint partnership to cooperate on the use of their expertise in aerial, HD, and Hi-speed photography and other types of image

capturing for current and future projects.

- Solvi MOU: The MOU agrees to establish cooperative relations to explore mutually beneficial opportunities in renewable and sustainable energy technologies.

Chair Rogers made a motion to approve the Ena Media and Solvi MOUs. Mr. Kelso seconded the motion and the Board voted unanimously to approve these MOUs.

**VII. Informational update on strategic issues (external):**

Chair Rogers requested that the Board review the informational update on strategic issues provided to the Board in their advance materials.

**VIII. Informational update on operations (internal):**

Chair Rogers requested that the Board review the informational update on operational issues provided to the Board in their advance materials.

**IX. Schedule next Board meeting and Adjourn:**

PISCES staff will circulate a poll to find a time for the next meeting in July 2016. The meeting was adjourned at 11:37 am, HST.