

**FY2013 Q1
Quarterly Report
Center for the Advancement of Science in Space**

Cooperative Agreement Number:	NNH11CD70A
Name:	Center for the Advancement of Science in Space, Inc.
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Section I: GENERAL STATUS REPORT

Board of Directors

On November 17, 2012, the CASIS Interim Board inducted the first seven members to the organization's permanent Board of Directors (BoD).

CASIS BoD Members are divided into two categories in accordance with the organization's bylaws – “managing members” and “scientific members” – to ensure a solid distribution of skills. The following individuals have been inducted:

Scientific Members:

- Bess Dawson-Hughes, M.D., Director, Bone Metabolism Laboratory, Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University
- Andrei E. Ruckenstein, Ph.D., Vice President Research & Associate Provost, Boston University
- Gordana Vunjak-Novakovic, Ph.D., Professor & Vice Chair, Biomedical Engineering, Columbia University

Managing Members:

- France Córdova, Ph.D., President Emerita, Purdue University
- Lewis Duncan, Ph.D., President, Rollins College
- Leroy Hood, M.D., Ph.D., Co-Founder & President, Institute for Systems Biology
- Howard Zucker, M.D., J.D., Professor of Clinical Anesthesiology, Albert Einstein College of Medicine, Yeshiva University

The initial members of the CASIS BoD conducted their first meeting on December 13, 2012 in Washington, D.C. The BoD met with the previous Interim Board, CASIS senior staff, members of NASA, and Congressional representatives. Key elements of the day-long meeting described the establishment of CASIS, the cooperative agreement and relationship to NASA, key initiatives being developed, and the proposed near-term research portfolio. The BoD approved the near-term research pathway objectives, identified a Chairperson, and determined the initial focus of the BoD: weekly telecom meetings to expedite recruitment of a CASIS Executive Director.

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Edward Harris, Director of Development:

CASIS recruited a candidate responsible for creating, developing, and executing CASIS' comprehensive development plan for generating funds from philanthropic, investment, capital, and other resources outside of NASA. This position will work closely with the Executive Director, Chief Operating Officer, members of the Senior Management team, and CASIS Board to advance the mission of CASIS and maximize contributed revenue. The Director of Development will serve as the lead in creating a culture of philanthropy for CASIS on the national platform. The Director will be responsible for establishing and monitoring the overall fundraising activities for CASIS from public and private sources, grants, individual donors, and foundations. The Director will coordinate these activities, including the identification, qualification, and assignment of prospects (individual, corporate, and institutional) as well as cultivation, solicitation, closure, and stewardship activities. An offer was extended to Mr. Harris, and he accepted the offer on December 7, 2012.

Amendment of the Cooperative Agreement 00006:

CASIS and NASA approved this modification. Several administrative modifications were made to areas including CASIS' recipient address and POC and the general scope of effort. Key modifications included the following:

1. A cross-waiver of liability between NASA and CASIS.
2. Clarification on patent rights that enable the federal government to exercise nonexclusive, nontransferable rights to subject inventions.
3. Clarification on data rights of the federal government for fully funded and cost-shared efforts.
4. Acceptance of the CASIS organizational conflict of interest policy.

CASIS and NASA will continue to refine the patent and data rights clauses in order to protect the specific interests of both NASA and CASIS investigators.

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Section II: PERFORMANCE METRICS

Operations Division

Identify how the CASIS prioritization method maps to the NASA ISS Research Office priority matrix:

The establishment of the payload prioritization process is an independent exercise that follows the formal evaluation and selection of CASIS projects for flight. "*Operations Addendum I*" provides a graphic representation of the relationship of the CASIS and NASA ISS Research Office prioritization schemes. Increment 37/38 serves as the first increment for which CASIS was able to review and select solicited and unsolicited proposals and make appropriate awards to projects within a timeframe coinciding with NASA's increment planning. This planning timeframe is, on average, 18 months in advance of the increment; however, CASIS currently also has the opportunity to review and possibly select additional opportunities to be fast-tracked into the increment plan. As a result, CASIS has developed a prioritization process that accounts for the increment planning timeframe, project flight readiness, and CASIS' ability to continue to support the research pipeline mid-increment. This process also takes into account the current process established by NASA for its payloads, as published in the most recent NASA ISS Science Prioritization Desk Instruction Rev 2-2011-10-28, ensuring a clear cross-link tying CASIS' prioritization scale to NASA's ISS Research Office process.

The prioritization process considers the following elements of an approved/awarded project:

1. Flight readiness and ability to meet the launch schedule of the particular increment.
2. Requirements to return science and/or data in an expeditious manner to address scientific and/or economic variables important to the awarded research.
3. On-orbit resource requirements, which need to be worked into the overall increment capability.

Based on these elements, CASIS has designed a three-tiered ranking for prioritization that ensures the current level of effort is maintained and that there is a level of confidence that resource allocation is not at risk.

- Tier one represents those projects that either are on orbit or are scheduled to fly within the specific increment and that have resource requirements as described above.
- Tier two represents those projects that either are on orbit or are scheduled to fly within the specific increment but that do not have significant resource requirements. Examples include passive payloads that can be moved or stowed at any given time, dormant on-orbit experiments, and experiments only transmitting low-bandwidth data to a POC.
- Tier three represents those projects that may still be in the CASIS evaluation and selection process or that may be considered to be fast-tracked into the increment planning process. Projects within this tier can be considered as placeholders within the lengthy planning schedule.

Within each tier, the requirements for each project drive an additional hierarchical prioritization; therefore, CASIS has a two-digit number assigned to a project to represent overall prioritization. For example, 1.3 indicates a tier-one project ranked third in overall prioritization within that tier.

Engage Other Government Agencies (OGAs) to develop Memorandums of Agreement

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(MOAs) and to create a process for bringing research opportunities into CASIS from new/continued OGA users of the International Space Station:

CASIS worked with the ISS Research Office to begin transition of active Space Act Agreements with OGAs. The National Institutes of Health had the only active agreement with NASA's ISS National Laboratory Office. Discussions with NIH identified CASIS processes and roles as the OGA sponsor and provided an opportunity for NIH to convey any outward concerns. Currently, a Memorandum of Agreement is being developed that will define the role CASIS will perform for future NIH-funded flight opportunities. CASIS has also engaged the DoD Spaceflight Test Program to conduct similar discussions; however, funding uncertainty of this program necessitated placing any further conversations on hold. CASIS plans to revisit discussions once federal budgeting is more established for FY2013.

During this quarter, CASIS was made aware of an external committee formed by the White House Office of Science and Technology Programs (OSTP) to discuss how OGAs would access the ISS U.S. National Laboratory for research outside of the NASA exploration mission. The Fast Track Action Committee (FTAC) was assembled and consisted of six federal agencies with an expressed interest in microgravity research, in particular understanding the impact on fundamental elements of organisms, understanding disease processes that can be modeled or studied in space, and ways in which microgravity research can contribute to the overall bio-economy. The FTAC agreed that access to ISS NL resources should be based on scientific merit, which includes the importance of the proposed research questions and the rigor of the proposed methodology, guided by implementation feasibility. CASIS is required by its Cooperative Agreement to also conduct an economic evaluation, as well as prioritize all of its projects for flight, in addition to considering scientific merit. These are additional steps that have not been required by OGAs in the past. Some concern was therefore generated regarding the affect these requirements might have on government-funded fundamental research. To remedy these concerns, CASIS has arranged to meet with the FTAC in early January 2013 to describe its process for evaluation, selection, and prioritization and alleviate any concerns that may exist.

In addition to the identified first quarter performance metrics, the following major activities were also conducted in the Operations Department:

Capture education and outreach (non-flight) activities in the project dashboard and include in the prioritization process as necessary for on-orbit resource allocation:

All current science, technology, engineering, and math (STEM) educational, other educational, and outreach (non-flight) activities have been integrated into the CASIS Project Summary Dashboard. In addition, an internal CASIS STEM and education working group has been established to facilitate necessary organizational communication and reporting requirements. This will ensure that critical inputs, such as on-orbit resource needs and allocations, are reported and accounted for in the planning and prioritization processes.

Become fully integrated in NASA working groups, boards, and panels to ensure efficient payload integration:

See attached "Operations Addendum Ii" for illustration of CASIS' integration into the various NASA working groups, boards, and panels. CASIS will continue to engage, support, and participate in future groups, boards, and panels where appropriate.

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Continue development of the project dashboard and underlying database and integrate the ability to produce status reports as needed for CASIS internal and external stakeholders:

The CASIS Project Dashboard has been developed and is fully functional, serving as the primary repository for all projects that require internal resources, including projects derived from formal and informal solicitations, independent STEM projects, and outreach activities. The dashboard consists of database and project management applications that can be accessed by approved personnel through the CASIS SharePoint portal. These project management tools are supported by databases that can be searched and sorted by several different types of data fields, including project/payload name, science discipline, project manager name, increment number, and implementation partner name. For the public, CASIS developed an online snapshot tool that identifies the number and diversity of projects in development. For stakeholders, CASIS can prepare reports and graphics based on requested information and provide these via electronic document or other media resources. CASIS has provided such reports to NASA senior management, its BoD, the Office of the Inspector General, and stakeholders within Congress as requested.

The development of the CASIS Payload Tactical Plan (PTP) Inputs Automation Tool was completed in November 2012. The application has been uploaded to a CASIS server and is currently undergoing beta testing. The use of this payload-development and research-planning tool will produce significant improvements in the efficiency and accuracy of the collection and management of required PTP inputs and the eventual reporting of these inputs to the Research Planning Working Group. It will also provide an improved user interface for our customers, including payload developers and the implementation partner community. The PTP Automation Tool integrates directly with the Project Dashboard and provides a robust operational asset for CASIS staff to share critical payload information with NASA and implementation partners. CASIS envisions this tool as one of several activities over FY2013 that will significantly reduce the burden and time required to manifest payloads.

Science & Technology

Recruit and establish a science and technology advisory board to support the development of research pathways and to conduct proposal reviews, analyses, and consultations as needed:

CASIS successfully recruited and established its Science Advisory Board in the first quarter. Board members have expertise across the spectrum of research represented in CASIS' research pathways. The Science Advisory Board will provide knowledge and expertise to the Chief Scientist and will support the guidance and development of CASIS' research opportunities. The Science Advisory Board is intended to shrink and grow as necessary based on the required science expertise needed to effectively execute research pathway opportunities. Listed below are current members of the Science Advisory Board:

- Walter Chazin, Ph.D. (Life Sciences)
- Arnold Levine, Ph.D.* (Life Sciences)
- Funda Meric-Bernstam M.D. (Life Sciences)
- Torben Orntoft, Ph.D. (Life Sciences)
- Jeffrey Trent, Ph.D.* (Life Sciences)
- Charles Guy, Ph.D. (Plant Physiology)
- S. Alan Stern, Ph.D. (Earth Observation)

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- Martin Glicksman, Ph.D. (Materials Science)
- Peter Trefonas, Ph.D. (Materials Science)

**Invitation Outstanding*

Identify the approved research pathways and provide documentation of the process used to establish those pathways:

In advance of the establishment of the permanent BoD and toward the end of the reporting quarter, CASIS senior management engaged in the preliminary development of the overall strategic plan for execution of research pathways. CASIS focused on life science research pathways to develop a strategic plan approach and test the depth and breadth of analysis necessary to successfully identify the most promising research opportunities.

CASIS presented the life science research strategic plan to the Interim BoD for review, approval, and identification of any necessary changes for moving forward with conducting similar efforts for other research pathways. See the attached "*Biosciences Opportunity Map*" that drove our approved science portfolio. CASIS is now investing significant resources to complete the strategic planning effort for research pathways in Earth observation and remote sensing as well as materials and physical science.

The permanent BoD approved the 2013 science portfolio during the meeting on December 13, 2012. As noted above, the life sciences pathways were generated in advance of the permanent BoD establishment, with the goal of constructing a model that could be vetted and approved – to provide guidance on how to proceed with the overall strategic plan for all research pathways. With permanent BoD approval occurring at the end of the reporting quarter, CASIS is now in the process of developing the appropriate level of detail within its strategic plan for creating specific pathway areas of focus within the second and third bulleted areas below (as already identified in the life sciences bullets).

- Life Sciences
 - High Priorities: Protein crystallization, stem cells (non-embryonic), plant biology
 - Low Priorities: Muscle wasting, osteoporosis
- Earth Observation and Remote Sensing: Optical platforms, multi- and hyper-spectral imaging
- Materials Science and Physical Sciences: Advanced materials development

Create a schedule that identifies the planned execution of CASIS grant opportunities:

See attached "*RFP Schedule*"

In addition to the identified first quarter performance metrics, the following was also conducted in the Science and Technology department:

Include a research analyst in the science and technology staff to support pathway development, interact with NASA and OGA science subject matter experts, and offer guidance to "new-to-space" investigators:

CASIS engaged with its science partner CSS-Dynamac on October 15, 2012 to bring in Michael Roberts to serve as a staff-level research analyst. Dr. Roberts has expertise in life sciences as a trained molecular biologist. Dr. Roberts is also an experienced flight investigator who has supported all phases of spaceflight research on several investigations. Following the addition of

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Dr. Roberts to the science staff, CASIS is recruiting additional research analysts that have specific expertise across the spectrum of the CASIS research pathways.

Economic Valuation

Provide an established policy and procedure for conducting fair and transparent valuation of projects that span the spectrum from basic to applied science and technology development:

See attached "*Economic Valuation*"

Conduct a review of the protein crystal growth Request for Proposals (RFP) and selection process, identifying issues and lessons learned:

CASIS conducted a survey and sought key feedback from proposers, reviewers, and CASIS staff involved in the first solicitation process. Using the feedback identified below, CASIS will create solutions to address each concern and deploy them during our Materials Science solicitation activities. Changes that will be made will be measured for success and any necessary further changes will be subsequently made.

- A greater emphasis on economic evaluation needs to be highlighted in documents and during the webinar so that proposers clearly understand that economic value is as important as scientific merit and do not consider the economic section of the RFP as an afterthought.
- Provide a better explanation of the importance of commercial letters of support to investigators through the RFP document and webinar.
- Consider customizing metrics and weighting for specific solicitations. CASIS is evaluating this critique, as it may be cumbersome and confusing to the research community and evaluators if a standardized set of metrics are not used. CASIS is trying to understand if any other perceived benefit would be derived before deploying this recommendation.
- Build a library on our website of previous research relevant to the RFP.
- Send out Risk & Compliance questionnaires to investigators during the economic review stage so time is not lost waiting for these during the legal review.
- Limit allowable indirect costs in the RFP documents. CASIS has since created a 25% ceiling policy on indirect costs.
- Provide a budget template in the RFP so that everyone submits in a standard format.

In addition to the identified first quarter performance metrics, the following major activities were also conducted in the Economic Valuation Department:

Complete ongoing research on new potential markets with the help of the Science Advisory Board and external partners:

See attached "*McKinsey Report*" for Life Sciences. CASIS is in the final process of engaging McKinsey to complete a similar study in Earth Observation and Remote Sensing, to be conducted during the second quarter. CASIS currently has a competitive process in place to select an external resource to support the development of materials and physical science opportunities on ISS NL. Additionally, CASIS established the permanent Science Advisory Board, as discussed above

CASIS identified and hired a senior manager for strategy and planning. Ms. Nancy Scott is

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charged with identifying promising markets that may benefit from using the ISS NL for research and technology development based on available research capabilities and existing hardware and facilities. Ms. Scott will utilize the Science Advisory Board, industry partners, and other resources to identify and gain access to C-level members of organizations and industries within the appropriate markets. She works closely with the Directors of Development and Business Operations to create the most attractive opportunities for commercial entities to invest in use of the ISS NL.

Review and provide a report on the 2013 research pathways and portfolio objectives as suggested by the Chief Scientist, Director of Science/Technology, and Science Advisory Board in areas including, but not limited to, market size, time to translation of benefits to American taxpayers, and potential customer feedback/interest:

These items were addressed in detail in the attached McKinsey report referenced above for the life sciences pathways, and this report represents the deliverable for this quarter. Detailed diligence is continuing within the Earth observation and remote sensing area. In addition, CASIS is evaluating the best course of action for establishing materials and physical sciences pathways and has engaged NASA and the American Society for Gravitational and Space Research to support development of the key research objectives for this area. With the installment of the CASIS BoD in December 2012, the Board has since approved all areas of the 2013 science portfolio as described in the Science & Technology section above. The BoD understands that our science portfolio will continually evolve and may change quarterly, with their approval, as our diligence continues.

Fundraising & Development

Create a near-term strategy for targeting and capturing outside funds from resources including but not limited to philanthropic, foundational, and other interests:

The CASIS membership program has been restructured to include benefits independent of the marketplace to "seed" membership while the marketplace itself is maturing. As outlined in the Cooperative Agreement, membership structure breaks down into three categories: individual membership, non-profit membership, and corporate membership. Each of the categories includes sliding-scale contribution amounts. All members, regardless of category, will have access to the ISS NL Marketplace. A new, more user-friendly membership portal is expected to be active before the close of FY2013.

Technical and architectural hurdles have been overcome in the development of the online Marketplace Hub. Phase I of the online hub will include an independently functioning forum overlaid with a robust proprietary social networking capability, ready for members to begin signing up and interacting with each other, primarily by participating in the forum. Phase II of the Marketplace is currently in the planning stages and will build out the systems to allow a crowd-funding mechanism for users to access and engage proposals from other users. Phase II will also introduce an "investment hub" to facilitate easy interaction between researchers and funders. The architecture is currently being designed and stood up.

In addition to refinement and implementation of membership capabilities, a second, balanced emphasis on more general, unrestricted support for CASIS' mission is being developed. This program will allow the definition of "membership" to expand and include annual gifts not dependent on the receipt of benefits but based more on standard, accepted methods for

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acquiring, recognizing, and engaging donors (based on best practices at model nonprofit organizations).

An internal effort has been initiated to secure philanthropic funding for projects that fall under the BoD-approved research pathway categories: biosciences, remote sensing/Earth observation, and materials science. Primarily, these funds will be sought from corporate and private philanthropic foundations and will be targeted to augment and/or complete funding needs for selected projects. Incorporated with the refinement of the membership program and the implementation of annual unrestricted giving (to include online gifts, direct mail solicitations, and crowd-source funding), CASIS will develop a broad-based, robust capability to secure sustainable philanthropic support from multiple sources (an effort led by the Director of Development, as described above).

Additionally, in an effort to fund more submitted projects, the operations budget has been reevaluated and budget under-runs from 2012 have been reallocated to several projects that were not funded initially.

Business Development

Create a business plan for targeting and capturing research opportunities that will utilize the ISS NL for commercial interests:

See attached *"Business Development Process and Strategic Plans"*

Develop a customer contact plan and database:

CASIS began development of a Contact Resource Management (CRM) database that integrates primary contacts generated from planned BD activities, as well as from networking and reactive meetings, into a tool that allows for tracking and capture based on CASIS research and utilization strategies. As development continues, primary focus elements include developing a seamless integration of CRM into the proposal and operations database in order to create a natural progression of opportunity capture through flight.

In addition to the identified first quarter performance metrics, the following major activities were also conducted in the Business Development Department:

CASIS engaged the support of a consultant to assist in the development of its strategic communications plan:

As part of a larger effort underway to support the development of CASIS' mission and core values, as well as its near- and long-term strategic plan, the strategy for how CASIS communicates is vital. Work in the first quarter included review of the current Marketing and Communications Plan to ensure that it is strategically sound and identifies clear targets and rationale. The 2013 Strategic Marketing and Communications Plan outlines promotion of the organization and the National Lab. In the plan, a strong emphasis is placed on the first CASIS-sponsored payloads and new multimedia materials to heighten the visibility of the organization and benefits of space-based research.

CASIS continues in its effort to market to a broader research community through a wide variety of promotional projects advertising the organization's mission:

Recent major efforts include the development and completion of two print advertisements

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targeted toward executive decision makers and researchers. Publications include "Fast Company" magazine (December/January issue) and "Science" magazine (December 21, 2012, issue).

To better inform stakeholders, investors and our elected officials, CASIS has developed a newsletter that originated in October. The purpose of the newsletter is to highlight recent accomplishments of the organization and promote feature articles on CASIS-sponsored research.

In November, CASIS took control of the National Lab twitter and Facebook accounts from NASA (including the National Lab's 19,000 twitter followers). After assuming the National Lab twitter handle, staff has placed a heavy emphasis on providing continuous updates to followers. Over the past two months, the account has attracted over 2,000 additional new users.

Also in November, the first CASIS Annual Report was supplied to NASA, with hard copies being delivered in January. The Annual Report provided a comprehensive look at the organization's first year, including highlights from departments and a look to the future with the current project pipeline.

From December to April, CASIS is a sponsor for NPR's popular series, "Science Friday." Through this sponsorship, 10-second spots will be aired providing a brief description of our mission and a call to action. NPR's "Science Friday" has an estimated 3.3 million listeners per week, allowing CASIS to reach a segment of the general population who has an interest in research.

STEM Education

Begin development of a STEM strategic plan:

The STEM strategic plan has been developed and is awaiting completion of the organizational strategic plan to ensure it is in alignment with the key vision and mission of the organization. See attached "*Education Plan*."

CASIS has engaged an external evaluator to develop an evaluation program for all CASIS education activities. All programs in the CASIS education portfolio will undergo a rigorous external evaluation. The purpose of this evaluation is to examine the extent to which and the conditions under which CASIS education is able to meet its goals and accomplish its objectives.

Enter into discussions with national organizations/commercial entities to begin the development of ISS-based STEM programs and partnership opportunities:

The CASIS education team is currently in discussions with the National Science Teachers Association to develop a National Design Challenge that will engage educators and their students in authentic research experiments onboard the ISS.

CASIS developed an ongoing working relationship with the NASA ISS Education Office during this quarter. The focus of this relationship is to ensure synergy and prevent redundancy in the projects and curricula that each entity will create.

CASIS is supporting the BioServe CSI-06 student experiment. Originally scheduled to fly in

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December 2012, the payload has been moved to April 2013. The experiment will demonstrate how ants regulate interaction in normal and microgravity conditions. The results will help to elucidate how ants coordinate their behavior and may have applications in other systems that rely on distributed algorithms, such as robots deployed for search and rescue operations.

CASIS continues to develop a major outreach campaign to highlight STEM education through reading with its support and development of Story Time from Space. This project involves relevant authors and former flight crew that are developing ISS-specific children's books that have defined STEM content and that will ultimately be read by orbiting crewmembers. A major element of this project is the establishment of a commercial partner to host these books in an e-reader format.

Develop the plan to transition the Zero Robotics middle school program to CASIS:
CASIS supported the MIT Zero Robotics high school competition, which will be conducted live from ISS on January 11, 2013. CASIS is now focusing its efforts on the middle school competition for later FY2013.

Administration

Quarterly budget/APP performance review with NASA:

The initial fiscal 2013 quarterly budget was presented to NASA on the due date of July 31, 2012 and was subsequently modified to reflect the actual carryover from 2012. NASA contingently approved the budget on December 7, 2012, assuming Congress will approve the FY2013 NASA budget in early calendar 2013.

Complete FY2012 external financial audit by third party:

The independent accounting firm Carr, Riggs & Ingram, LLC, on October 25, 2012, completed the financial audit for the year ended September 30, 2012.

Submit annual inventory report:

The CASIS Equipment Inventory report was submitted to NASA on October 15, 2012.

Establish Compliance Committee Charter for Risk Management:

The Compliance Committee has been established and is beginning to meet on a monthly basis.

In addition to the identified first quarter performance metrics, the following major activities were also conducted in the Administration Department.

Implement IT disaster recovery solution:

The IT disaster recovery plan is currently in place and functioning. The core infrastructure (email, CASIS domain services, SharePoint, and CASIS web infrastructure) is replicated nightly to an offsite secure datacenter. In the event of major disaster, downtime is only limited to DNS propagation (new IP Addresses in offsite facility to which equipment is cut) estimated at 1-4 hours.

Integrate IT network at Space Life Sciences Lab (SLSL):

The internal network is up and running for both wired and wireless. VoIP phone system are installed and integrated with other CASIS locations for on-net extension dialing eliminating long

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distance costs between offices. The SLSL internal LAN is integrated with the Houston and Suntree offices for access to shared resources (files servers, printers, etc.)

Complete BoD and Science Advisory Board members annual compliance certification:

CASIS has completed annual compliance certification for 5 of the 7 new BoD members. The Science Advisory Board member certifications will be complete in Q2 2013.

Complete organizational governance policies and procedures:

CASIS currently has organizational governance policies and procedures in place. The Compliance Committee is doing a review and edit of additional policies that will be rolled out to the organization in Q2 2013.

Complete and document employee policies and handbook:

Employee policies are documented; creation of the handbook is ongoing and will be reviewed by the compliance committee prior to distribution.

Executive Director, Chief Operating Officer, Chief Scientist, and Director of Development positions are onboard:

Chief Operating Officer and Director of Development positions are complete. The Board is recruiting the Executive Director, and there are no immediate plans to bring on a permanent Chief Scientist; a consultant, Timothy Yeatman, M.D., occupies the position.

Conduct budget vs. actual reviews with departments:

Monthly financial statement reports comparing budget to actual results are being produced and reviewed by department heads.

Update performance metrics and complete dashboard:

The performance metrics were updated after the close of the quarter with results for Q1 2013 and can be found at www.iss-casis.org/dashboard.

Complete on-boarding of employees for the fiscal year:

Recruitment and on-boarding will continue throughout the fiscal year for approximately nine additional employees.

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Section III: BUSINESS STATUS REPORT December 31, 2012			
	Budget Q1 2013	Actuals Q1 2013	Variance
	\$7,419,221	\$3,169,574	\$4,249,647
Direct Labor	1,344,697	982,292	362,405
Grants to be Awarded	3,527,041	638,259	2,888,782
Equipment (Permanent > \$5k)	49,200	83,595	(34,395)
Equipment (Expendable & Supplies)	24,420	56,056	(31,636)
Other Direct Costs	258,277	216,611	41,666
Subcontract Costs	2,002,398	1,060,228	942,170
Travel	213,188	132,533	80,655