American Institute of Aeronautics and Astronautics

American Institute of Aeronautics and Astronautics Student Chapter (AIAA)

January 25th, 2013

Student Services Fee Request for 2013 - 2014 Academic Year

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“We acknowledge that the Fees Committee does not award actual dollars, but rather a penny fee that earns dollars based upon student enrollment levels. Any differences between anticipated and actual income resulting from changes in enrollment are the responsibility of the student organization, not of the Fees Committee.”

Dane Mandy Akshit Reddy

Preparer’s Name Co-Preparer’s Name

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Preparer’s Email Co-Preparer’s Email

Is your organization an IRS 501 (c)(3) not-for-profit? Yes__________ No ___ X _____

If yes, please provide proof of your organization’s 501(c)(3) status.

Funds are being requested for (check all that apply):

General Operating Support: X Start-Up Costs: Capital:

Project / Program Support: X Technical Assistance: Other (List):

Budget

Dollar Amount Requested $ 10379
Total Annual Organization Budget $ 14,340
Total Program Budget (apart from General Operating) $ 14,414
Narrative

The American Institute of Aeronautics and Astronautics (AIAA) is an international professional society formed in the early 60’s to meet the past, present, and future need of the aerospace workforce. Student branches have been established as a bridge to allow students to network with professionals at various AIAA events across the country.

Specifically, our mission is to provide a platform for University of Minnesota students to network with aerospace and industry related professionals, while at the same time provide opportunities for students to build relationships with others interested in aviation and space flight on campus. Our goal is to create an active community of passionate students who have a means to collaborate with each other and professionals during their time of studies at the University of Minnesota.

To meet this goal, AIAA collaborates with similar student organizations for events such as conferences, lectures, and tours. These events bring professionals to the campus and give a large audience of students the chance to hear their experiences and potentially network. In addition, AIAA works with students on projects and hosts various social events during the semester. These activities are all part of our efforts to build a vibrant academic community.

Even though the field involves a wealth of technical diversity from the people who make up the industry, aerospace and related industries belong in a field that lies in the peripherals of science and engineering students looking at prospective careers. Because of this distance it has with students, it’s often unknown what opportunities the area offers for careers, and is thus difficult for students to become involved with the industry. This esoteric face is particularly difficult in the Midwest as well; we are a major location where industry employers are scarce. AIAA exists in part to tackle this challenge and expose students who have an interest in this field to potential career paths after school and allow them to be excited about on campus projects while at school.

Student Involvement

On campus, AIAA hosts semester-based engineering projects that put the students in control of decision-making. For Example, AIAA currently hosts a Radio Controlled Plane Project, where students have rebuilt a flyable scale airplane and are responsible for maintaining it. Additional work is going into building RC planes from scratch, improving piloting skills, and directly applying the material students learn in class to make improvements upon previous designs. The student branch is a platform for such projects, and is driven by the ideas of new AIAA members.

We have other AIAA national level competitions we participate in which Cansat is one of them. It is a payload design competition held internationally by NASA. In 2012 we have participated in the competition and had a good success rate due(18th Worldwide) to which this is actually been approved as a class in AEM department under Independent design project(Spring 2013).In Spring 2013 we have participated again and we got very high success we were placed as Number # 6 in worldwide NASA competition beating all the national teams from United states. With this Success we went on forming
two teams this year. This Success created a buzz in the department. Since 2007 this is the first time in any student competition AEM Students were in top 6, this also created lot of attention in the Students and got lot of students to participate in the competition which finally ended up in two teams. The theory students learn from classes is been applied in competition and judged on an international level. This is one of successful new addition of projects started in 2012 and with highest Success in 2013 we would like to continue the legacy and reach Number one position in spring 2014 with two teams trying to be in Top three. In Future we are trying to form Three Teams and AIAA also works closely with the professional chapter to give students opportunities to participate in National AIAA Paper Conferences. These Conferences challenge students to write a technical paper of their choice for presentation to industry professionals from across the country. University of Minnesota involvement in these Conferences has been persistent.

We also involved in another design Project which is also an AIAA design project. This project, called Design, Build, and Fly Project, is a design competition held internationally that we will be participating in next year.

After the 2012 Cansat Competition we went to St Louis University for Midwest Aerospace paper Conference to present our Paper in 2013 on 2012 CanSat Project. This time AIAA and AEM department together is conducting the Midwest Aerospace Paper conference in University of Minnesota – Twin cities with more than 10 States of Schools Participating in Midwest Region. AEM student are presenting 32 papers in this conference and we are expecting at least 120 papers in the conference.
Section 2: Organizational Chart

- Provide a block diagram that supplements the narrative section and details more clearly the structure of the student group. The organizational chart should provide a clear picture of the reporting structure, student involvement and programmatic areas.

We believe that students should be free to choose their level of involvement in the student group. Their participation within AIAA works with this philosophy by challenging them and placing responsibility on their shoulders. This comes in various forms such as a Project Leads, officer positions, or being in charge of committees to organize upcoming events.

The figure above illustrates how the positions within the AIAA Student branch are structured and interact overall with each other. The size of each box represents the relative size of student participation at such events/meetings.

The student chapter consists of student members who form the officers, project leaders, and committee members. Every member has a role in AIAA. Officers interact with a faculty member for advice and suggestions. All student members contribute at general meetings where conversations of events arise. Lectures, tours, social events, and networking events are the four main categories of events that AIAA host. At these various events the professional chapter and other students attend and provide feedback to the members. This chain of structure has proven to be efficient over the past semesters.

The leadership positions in AIAA (or Officers) consist of a President, Vice-President, Treasurer, Secretary/Webmaster, and Outreach Coordinator. Through experience, these roles are sufficient for the functionality of AIAA. As we work to expand, more roles may be appropriate and their addition will be accessed. The figure below displays the order of hierarchy of these positions. Everyone reports to either
the President or Vice-President and the Vice-President reports to the President. We also have a faculty advisor who is a professor in AEM department.

The President of AIAA is the most crucial role. This person presides over all meetings, both general and officer. He/she oversees the welfare of AIAA and monitors all other officers towards this. As we are the student chapter, the President attends the professional chapter meetings with inputs and reports. He/she is the main contact of the faculty advisor and reports on what the advisor suggests or requests. All paperwork goes through the President. The President along with initiating leadership for events and projects does scheduling of these for each semester. In the event that the President cannot fulfill his/her duties, they must find a replacement.

The Vice-President assumes the roles of the President when he/she is absent. All recruitment aspects of the organization or overseen by the Vice-President. The Vice-President is the official liaison to the university’s Aerospace Engineering and Mechanics Department. This person takes care of obtaining room reservations, necessary permits, and works closely with the President on event preparations.

The Treasurer, along with the President, is the official owner any banking accounts. He/she is responsible for all financial transactions made by AIAA. The Treasurer with the aid of the President does budgeting for the semester and events. The Treasurer documents a record of any spending on each event. This person seeks and oversees all fundraising efforts. All grant applications of AIAA or administered by the Treasurer.

The Secretary role includes keeping all meeting minutes and sending out these minutes. Another role is to handle all necessary correspondence of the organization; this includes things such as thank you
notes and company contacts. He/she monitors attendance at events and record and provide general feedback of meetings and event.

Webmaster roles include maintaining the AIAA website and updating the mailing list. The Aerospace department has mandated new website rules and this task has become quite busy.

Our Outreach Coordinator is responsible for recruitment to volunteer opportunities in the community. He/she attends the Science and Engineering Student Board (SESB) Meetings and reports back on involvement opportunities and on what other student groups are actively doing.

3. Performance Report
Participation in events held by SIAM Chapter at the University of Minnesota in 2012 (Spring and Fall semesters)

<table>
<thead>
<tr>
<th>Event</th>
<th>Occurrence (per year)</th>
<th>AIAA Student Members Attendees</th>
<th>Non-Member Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Officer Meetings</td>
<td>26</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>General Meetings</td>
<td>10</td>
<td>55</td>
<td>10</td>
</tr>
<tr>
<td>Flight Gear Night</td>
<td>2</td>
<td>25</td>
<td>6</td>
</tr>
<tr>
<td>Company Tour</td>
<td>4</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>CSE Student Org. Fair</td>
<td>1</td>
<td>6</td>
<td>&gt;100</td>
</tr>
<tr>
<td>Family Fun Fair</td>
<td>1</td>
<td>6</td>
<td>&gt;1000</td>
</tr>
<tr>
<td>CanSat Rocket Meetings</td>
<td>50+</td>
<td>26</td>
<td>10</td>
</tr>
<tr>
<td>RC Plane Revival Project</td>
<td>18</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>Professional Open House</td>
<td>2</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Distinguished Speaker</td>
<td>4</td>
<td>35</td>
<td>16+</td>
</tr>
<tr>
<td>Space Design Project</td>
<td>14</td>
<td>15</td>
<td>6</td>
</tr>
<tr>
<td>Design, Build, Fly Competition</td>
<td>16</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Exxon Mobile Info Session</td>
<td>2</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>AIAA Paper Conference</td>
<td>1</td>
<td>17</td>
<td>&gt;500</td>
</tr>
<tr>
<td>Ion Speaker Conference</td>
<td>4</td>
<td>25</td>
<td>20</td>
</tr>
</tbody>
</table>

Sign Up sheets with gathered reports will be presented during Presentation to the committee.

4. Reserve Account
While there is no explicit reserves account, over the past three years, the organization has maintained a rollover balance of at least $100 at the end of each school year. Including outside funding, this $100 represents approximately 5-10% of the total budget. This is necessary to cover the cost of activities scheduled at the beginning of the academic semester, since our main source of funding only issues their checks much later in the semester.
Section 5: Fees Request

AIAA is requesting $10,379, which is twice more than the request made last year. This additional requested amount reflects the startup of new competitions within the student group and additional CanSat Group’s (Third) and SAT research group. The SAT group will focus on different Competitions like CubeSat, NanoCanSat. In the revival of many projects and events, this money will play a great factor guaranteeing the success of the student group. Current leadership of AIAA is looking to improve on many things and this grant will greatly benefit this path.

Summer Events are very few which does not require any monetary needs. There will be no networking events, general meetings, and officer meetings will occur as needed. With the majority of members and officers off-campus for the summer doing internships and working, past years have shown that AIAA activity over the summer would not be very beneficial. Despite the lack of summer events, officers will take advantage of this time to plan and discuss possible events for the upcoming year. Most of this communication will be via email and few meetings in our designated space in Akerman Hall. Since the summer months are a prime time for RC aircraft flight tests, our RC project will continue over the summer with building, flying, and designing. Student group members will have full access to the workshop where the RC planes are stored and will be able to continue working on the project just as during the year. The team lead will appoint a capable member that will be present over the summer to take charge of the RC Plane Project during the summer. This will ensure that progress will continue to be made over the summer months. With this, AIAA will be approximately operating about 15% of the time over summer but our office can be accessed 100% of the time.

AIAA does recruitment year round and students who would like to be involved in the summer are more than welcome to. Most RC, DBF Building and CanSat meetings will happen in our room or the hanger of Akerman Hall. We encourage all students to come join in on this project. Anyone can join and learn about what we do and they don’t have to be Aerospace Engineering students. We desire input from outside the Aerospace realm.

Section 6: Description of Impact of a 10 Percent Reduction in Fees Request

- Indicate the impact on the student group should this request be reduced by 10 percent.
- Consider the programs or services that would be affected, the implications on expenditures and revenues and the management steps that would be taken

A 10% reduction in request would inhibit AIAA from hosting one or two events. Losing $1000 would initiate an Officers’ discussion on prioritizing and eliminating events. Already starting with little, this request cut would only hinder the restoration and growth stage we are in. We feel all our events are worthy and favor the continuation and development of all of them. Any successful organization favors improvement and a budget cut is one ultimate barrier to this.

Programs that will be affected or eliminated would most likely include company info sessions and Paper conference participants. Since these types of events are high in merit and are extremely beneficial to our members, removing them from the schedule would degrade the overall value of the student group. Since attendance to these types of events is commonly great, putting a capacity on attendance would not be possible. We feel that all members should have an equal opportunity to attend events and Present their
research in there appropriate conferences. This leads us to eliminate certain Participants in conferences in order to be able to serve everyone who wants to attend.

Many of the projects that AIAA supports, such as CanSat, require highly specific and expensive equipment including GPS units, altimeters, and other flight equipment. Reductions in our yearly budget would also inhibit us from purchasing some of the equipment necessary to participate competitively in such events.

A potential combat of this would be to find income from other sources. AIAA would need to spend more time on recruiting members to be involved in opportunities where income is generated. The Aerospace Engineering and Mechanics department offers little help on these kinds of events and it is the College of Science and Engineering Grants that may help on certain projects and events.