

# **1. Introduction**

On behalf of the University of Illinois at Urbana-Champaign (UIUC) SEDS and Purdue University SEDS planning committee, this proposal to host the 2005 SEDS-USA National Conference at the University of Illinois is respectfully submitted to the SEDS-USA Executive Board. The committee proposes the following benefits for hosting the conference at UIUC:

**1. Geographic and Demographic Center of SEDS-USA.** UIUC is the most central location in SEDS-USA to host the conference. Champaign offers participants the opportunity to arrive by plane, train, or bus. Champaign also lies within 150 miles of Midway Airport and O'Hare Airport in Chicago and Indianapolis International Airport. Lambert-St. Louis International Airport lies within 200 miles. Illinois SEDS and Purdue SEDS also have the two most populated SEDS chapters.

**2. Competitive Price.** The cost of food and lodging in Champaign-Urbana is lower than many other potential locations. The conference planning committee will be able to offer discounts on air travel and lodging.

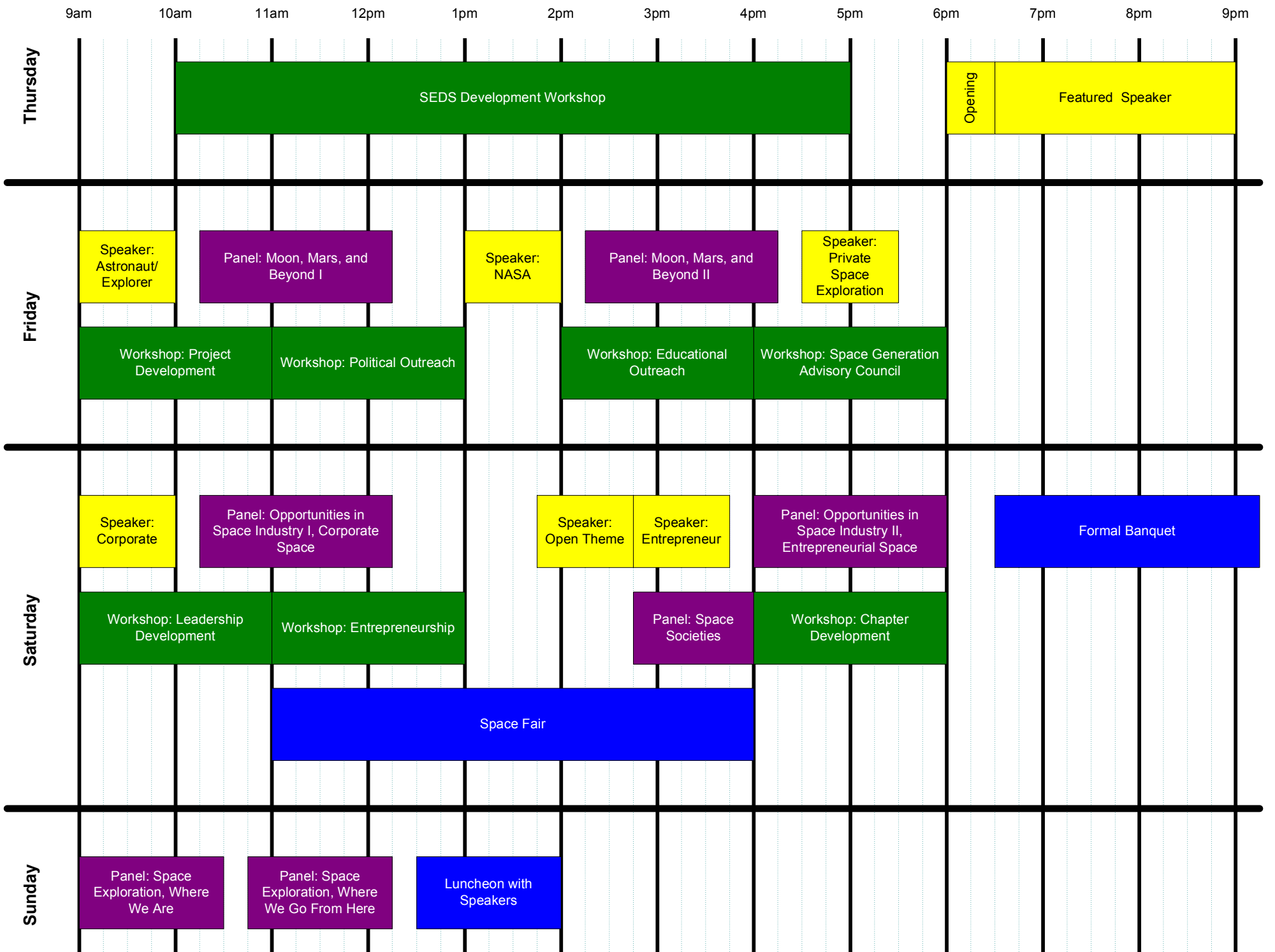
**3. Proximity to Services.** The location of conference activities is a short distance away from food, lodging, and recreational facilities. The majority of conference presentations will be held in one building on campus: the Illini Student Union. A food court, as well as lodging for conference presenters (and some participants), is located in the building. Campustown, where many restaurants are located, is located a block away from the union. Lodging for conference participants is located on the north edge of campus, four blocks north of the Illini Union.

**4. Strength of Planning Team.** Previously mentioned, Illinois SEDS and Purdue SEDS have the largest and second largest chapter memberships. Additionally, four members of the national executive board are students at Illinois and Purdue. Thus, there is a significant pool of members to which conference planning tasks can be delegated and it will be possible to engage the SEDS executive board more closely with the development of the conference program. The 2005 conference chairman also assisted the 2004 MIT conference planning team in a minor role and observed the communications and development of the conference.

# **2. Conference Theme**

The 2004 SEDS-USA National Conference at MIT was centered on a vision for space exploration. The 2005 conference proposed by Illinois-Purdue will be the next step of this theme: engaging students in the visions that were witnessed at the 2004 conference. The theme is broken down further by day.

Thursday, November 10, will host a SEDS development workshop during the day and opening ceremonies at night. Friday, November 11, will be dedicated to programs and technologies related to "Moon, Mars, and Beyond" and the President's Vision for Space Exploration. Saturday, November 12, will be dedicated to opportunities in the space industry for students before and after graduation. Sunday, November 13, will define the "state of exploration" and how we can progress from the present.



### **3. Program**

Note: Room locations not marked TBD (to be determined) have already been reserved from the University of Illinois for conference use.

#### **THURSDAY**

##### ***Workshop: SEDS Development***

- **Description:** The SEDS development workshop will be an opportunity for current and former SEDS leaders to discuss the development of SEDS programs for future years. Many ideas and experiences from SEDS become lost through the years and this workshop will tie together experiences from the first 25 years of SEDS.
- **Location:** Grainger Engineering Library

##### ***Conference Introduction***

- **Description:** The opening ceremony will be an introduction to SEDS and to the conference program.
- **Location:** Foellinger Auditorium

##### ***Opening Speaker***

- **Description:** An opening speaker will be chosen that embodies the theme of innovation and exploration.
- **Potential Speakers:** Burt Rutan (CEO, Scaled Composites), Peter Diamandis (CEO, Zero Gravity Corporation), Buzz Aldrin, Eugene Cernan, John Young
- **Location:** Foellinger Auditorium
- **Note:** This will be in conjunction with the annual Illinois SEDS X DAY presentation (<http://illinois.seds.org/xday>), therefore free and open to the public.

#### **FRIDAY**

##### ***Speaker: Astronaut/Explorer***

- **Description:** To kick off the first big day of the conference, we would like to invite a guest who is an accomplished space explorer and can relate his or her experiences.
- **Potential Speakers:** John Young, Eugene Cernan, Buzz Aldrin, Mike Melvill
- **Location:** Illini Union Rooms A, B, C

##### ***Workshop: Project Development***

- **Description:** The project development workshop will allow students to meet with the SEDS-USA director of projects to compose a national project. The workshop will be run with assistance from a scientist or engineer from the space industry and former SEDS executive board members who have experience with project management. The outcome of the workshop should be a clear, concise view of a national project and a path toward completion.
- **Potential Workshop Leaders:** Josh Nelson (Arizona SEDS)
- **Location:** 314 Illini Union

### ***Panel: Moon, Mars, and Beyond I***

- **Description:** The MMB I panel will focus on *robotic* technologies for interplanetary exploration. Representatives from robotic missions and developers of inventive technologies will describe challenges that lie ahead for fulfilling the President's Vision for Space Exploration. One representative each from Moon, Mars, and Beyond, as well as a wildcard presenter will briefly discuss their projects and then share their experiences in small-group discussions with students.
- **Potential Panelists:**
  - ▶ **Moon:**
  - ▶ **Mars:** Chris Lewicki (Flight Director, Mars Exploration Rovers), Jim Garvin (Chief Scientist, NASA), Steve Squyres (Principal Science Investigator, Mars Exploration Rovers)
  - ▶ **Beyond:** Bob Farquhar (Program Manager, Near Earth Asteroid Rendezvous), Ken Atkins (Program Manager, Stardust)
- **Location:** Illini Union Rooms A, B, C

### ***Workshop: Political Outreach***

- **Description:** Participants will gain an understanding of the critical role that policy plays in space exploration and how they can become involved in the political process.
- **Potential Workshop Leaders:** Eric Dahlstrom, John Logsdon (Director, Space Policy Institute, George Washington University), Jeff Feige (Strategic and Space Policy Consulting), Alex Hanna (Embry Riddle SEDS)
- **Location:** 314 Illini Union

### ***Speaker: NASA Exploration***

- **Description:** A representative of NASA's Moon, Mars and Beyond initiative will give students an overview of the program and an update on the status of the Vision for Space Exploration.
- **Potential Speakers:** Craig Steidle (Associate Administrator for Exploration Systems, NASA), Mike Lembeck (Director, Requirements Division, NASA), Jim Garvin (Chief Scientist, NASA)
- **Location:** Illini Union Rooms A, B, C

### ***Workshop: Educational Outreach***

- **Description:** The educational outreach workshop will discuss methods of educating young students using space exploration as a tool. Participants will create a plan for a standard set of materials that can be used by multiple chapters.
- **Potential Workshop Leaders:** Kirk Kittell (Illinois SEDS), Richard Godwin (CEO, Apogee Books), Philomena Bonis (educator)
- **Location:** 314 Illini Union

### ***Panel: Moon, Mars, and Beyond II***

- **Description:** The MMB II panel will focus on sciences and technologies associated with *human* exploration. One representative each from Moon, Mars, and Beyond, as well as a wildcard presenter will briefly discuss their projects and then share their experiences in small-group discussions with students.
- **Potential panelists:**
  - ▶ **Moon:**

- ▶ **Mars:**
- ▶ **Beyond:**
- **Location:** TBD

### ***Speaker: Private Space Exploration***

- **Description:** In addition to NASA and its affiliates, several other groups are making headway in the campaign to explore space. Private foundations and companies are bringing the opportunity for people to travel to space to fruition in exciting ways.
- **Potential Speakers:** Gregg Maryniak (Executive Director, X PRIZE Foundation), Peter Diamandis (CEO, Zero Gravity Corporation), Eric Anderson (CEO, Space Adventures), Richard Branson (CEO, Virgin Group)
- **Location:** TBD

### ***Workshop: Space Generation Foundation***

- **Description:** The Space Generation Foundation is a network of international students and young professionals who use space to make a difference in the world. SpaceGen projects include Yuri's Night, the world space party; Cosmos Education; and Permission to Dream.
- **Potential Workshop Leaders:** Loretta Hidalgo (President, Space Generation Foundation), Chris Boshuizen (Program Manager, 2005 Space Generation Congress), George Whitesides (Executive Director, National Space Society)
- **Location:** 314 Illini Union

## **SATURDAY**

### ***Speaker: Corporate***

- **Description:** Many opportunities for future employment will be opening up for students in the near future. The corporate speaker will discuss the near-term trends of employment in the space industry and what students can do to engage in upcoming opportunities.
- **Potential Speakers:** TBD in conjunction with sponsorship affairs
- **Location:** TBD

### ***Workshop: Leadership Development***

- **Description:** The leadership development workshop will be open to recently elected national leaders and chapter leaders. These leaders will be linked with former national executive board leaders to develop a plan for SEDS and to learn from experiences from the past. This workshop will be a short extension of the Thursday morning and afternoon workshop.
- **Potential Workshop Leaders:** Josh Neubert
- **Location:** 314 Illini Union

### ***Panel: Opportunities in Space Industry I, Corporate Space***

- **Description:** Many opportunities for future employment will be opening up for students in the near future. The corporate panel will discuss the near-term trends of employment in the space industry and what students can do to engage in upcoming opportunities.
- **Potential Panelists:** TBD in conjunction with sponsorship affairs
- **Location:** TBD

### ***Workshop: Entrepreneurship***

- **Description:** Students will learn about entrepreneurship and what resources are available to become involved in forming a new business. Participants will be able to learn firsthand from the experiences of other entrepreneurs.

- **Potential Workshop Leaders:** Center for Entrepreneurial Development, Technology Entrepreneur Center
- **Location:** 314 Illini Union

### ***Space Fair***

- **Description:** Space Fair will combine a job fair with representatives of the space industry, demonstrations of technologies, student research posters, professional societies, academic institutions, and vendors.
- **Potential Guests**
  - ▶ **Corporations**
  - ▶ **Government**
    - ▷ Jet Propulsion Lab, <http://www.jpl.nasa.gov>
  - ▶ **Technology Demonstrations**
  - ▶ **Student Research**
  - ▶ **Societies**
    - ▷ American Astronautical Society, <http://www.astronautical.org>
    - ▷ American Institute of Aeronautics and Astronautics, <http://www.aiaa.org>
    - ▷ National Space Society, <http://www.nss.org>
  - ▶ **Academic Institutions**
    - ▷ International Space University, <http://www.isunet.edu>
  - ▶ **Vendors**
    - ▷ Apogee Books, <http://www.apogeebooks.com>
    - ▷ Aviation Week and Space Technology, <http://www.aviationweek.com>
    - ▷ Everquest Design, <http://soyuzbags.everquestdesign.com/>
    - ▷ Sky and Telescope, <http://skyandtelescope.com>
    - ▷ Smithsonian Air and Space Magazine, <http://www.airspacemag.com>
    - ▷ Space News, <http://www.spacenews.com>
- **Location:** Illini Union Ballroom

### ***Speaker: (Open Theme)***

- **Description:** A period for a speaker has been reserved in the early afternoon if it is needed. It is possible that this slot may be left open to encourage more students to interact at the Space Fair.
- **Potential Speakers:** TBD
- **Location:** TBD

### ***Panel: Space Societies***

- **Description:** Representatives from professional and space advocacy organizations will discuss their roles that students can in their future as professionals.
- **Potential Panelists:** George Whitesides, (Executive Director, National Space Society), Jim Kirkpatrick (Executive Director, American Astronautical Society)
- **Location:** TBD

### ***Speaker: Entrepreneur***

- **Description:** Some of the most innovative concepts for space missions and mission components are being developed by entrepreneurs. Small companies are an exciting way to become involved in the space industry.

- **Potential Speakers:** Jim Benson (CEO, SpaceDev), Elon Musk (CEO, SpaceX), Jeff Bezos (CEO, Blue Origin), John Carmack (CEO, Armadillo Aerospace)
- **Location:** TBD

### ***Workshop: Chapter Development***

- **Description:** Chapter leaders will have an opportunity to meet with each other and discuss plans for interchapter activities as well as what they would like the role of the national organization to be. This workshop will help to create a strong interchapter network.
- **Potential Workshop Leaders:** TBD
- **Location:** 314 Illini Union

### ***Panel: Opportunities in Space Industry II, Entrepreneurial Space***

- **Description:** Some of the most innovative concepts for space missions and mission components are being developed by entrepreneurs. Small companies are an exciting way to become involved in the space industry.
- **Potential Panelists:** Jim Benson (CEO, SpaceDev), Elon Musk (CEO, SpaceX), Jeff Bezos (CEO, Blue Origin), John Carmack (CEO, Armadillo Aerospace)
- **Location:** TBD

### ***Formal Banquet***

- **Description:** Nominally, the banquet will serve as a fundraising event for SEDS-USA and not for the conference. Tickets will be sold at a high rate, \$40 or \$50, to interested participants. Invited guests and principal donors will receive complementary tickets.
- **Potential Speakers:** TBD
- **Location:** 103 Illini Union (Colonial Room)

## **SUNDAY**

### ***Panel: Space Exploration, Where We Are***

- **Description:** TBD
- **Potential Panelists:** John Logsdon (Director, Space Policy Institute, George Washington University), Roger Launius (Curator, National Air and Space Museum, Smithsonian Institution), Buzz Aldrin
- **Location:** Illini Rooms A, B

### ***Panel: Space Exploration: Where We Go From Here***

- **Description:** TBD
- **Potential Panelists:** TBD
- **Location:** Illini Rooms A, B

### ***Luncheon***

- **Description:** TBD
- **Potential Speakers:**
- **Location:** 314 Illini Union

## **4. Resources at the University of Illinois**

### ***Facilities***

**Foellinger Auditorium**

Link: <http://www.foellinger.uiuc.edu>. Foellinger Auditorium is the landmark building on the UIUC campus. It has been reserved for the opening ceremonies on Thursday, November 10. Foellinger was used for a similar program on November 30, 2004, for X PRIZE Executive Director Gregg Maryniak (see <http://illinois.seds.org/xday>).

### **Illini Student Union**

Link: <http://www.union.uiuc.edu>. The Illini Student Union is the center of activity on the UIUC campus. The Union is home to several fast food restaurants, coffee shops, study rooms, meeting rooms, and a 76 room hotel.

### **Grainger Engineering Library**

Link: <http://web.library.uiuc.edu/granger>. The study hall on the fourth floor (<http://illinois.seds.org/space2005/pics/Grainger02.jpg>) and the hall on the second floor (<http://illinois.seds.org/space2005/pics/Grainger01.jpg>) have been reserved for use on Thursday, November 10, for the SEDS development workshop.

### **Computing facilities**

Conference participants will be able to receive permissions to use the campus computer network while at the university. Wireless accommodations are available in both the Union and in Grainger. The domain name <http://www.space2005.org> has been registered to provide an easy-to-remember location for the conference web site.

## **5. Travel**

For participants traveling by air, the simplest option for traveling to the conference is to fly directly into Willard Airport in Champaign (<http://www.willardairport.com>). Three airlines fly into Willard: Northwest, American, and Delta. Each airline offers a 10% discount for conference travel. However, Illinois SEDS was able to get a 15% discount for 34 seats on its trip to Mojave, CA in September, 2004. An official conference airline will be chosen based on which of the three airlines can offer the best rate. A sample of flight costs from various chapter locations to Champaign is displayed below.

<b>Departs</b>	<b>Arrives</b>	<b>Airline</b>	<b>Cost</b>	<b>Cost -10%</b>
Baltimore, MD	Champaign	Northwest Airlines	\$234	\$211
Phoenix, AZ	Champaign	Northwest Airlines	\$238	\$214
Orlando, FL	Champaign	American Airlines	\$242	\$218
Orlando, FL	Champaign	Northwest Airlines	\$242	\$218
Denver, CO	Champaign	American Airlines	\$270	\$243
Denver, CO	Champaign	Northwest Airlines	\$270	\$243
Boston, MA	Champaign	Northwest Airlines	\$298	\$268
Washington, DC	Champaign	Northwest Airlines	\$304	\$274
Boston, MA	Champaign	American Airlines	\$314	\$283
Tucson, AZ	Champaign	American Airlines	\$392	\$353
Seattle, WA	Champaign	American Airlines	\$400	\$360
Seattle, WA	Champaign	Northwest Airlines	\$447	\$402
Honolulu, HI	Champaign	Northwest Airlines	\$1,334	\$1,201



Other options for travel exist if participants fly into the surrounding cities of Chicago, St. Louis, or Indianapolis. For reference, flights arriving in Chicago are displayed in the table below. To travel from Chicago to Champaign, Amtrak offers a best roundtrip ticket of \$24 and Greyhound offers a best roundtrip ticket of \$34. If enough students determine that they will fly into Chicago, the conference planning team will research the possibility of renting a bus for travel between Chicago (or St. Louis or Indianapolis) and Champaign.

<b>Departs</b>	<b>Arrives</b>	<b>Airline</b>	<b>Cost</b>	<b>Cost -10%</b>
Washington, DC	Chicago	Northwest Airlines	\$173	\$156
Washington, DC	Chicago	Northwest Airlines	\$173	\$156
Orlando, FL	Chicago	ATA	\$180	\$162
Orlando, FL	Chicago	American Airlines	\$181	\$163
Washington, DC	Chicago	American Airlines	\$183	\$165
Phoenix, AZ	Chicago	American Airlines	\$198	\$178
Seattle, WA	Chicago	American Airlines	\$223	\$201
Denver, CO	Chicago	Frontier	\$241	\$217
Seattle, WA	Chicago	Delta	\$254	\$229
Boston, MA	Chicago	American Airlines	\$281	\$253
Denver, CO	Chicago	American Airlines	\$283	\$255
Honolulu, HI	Chicago	American Airlines	\$787	\$708

In addition to flight information, the conference planning team will set up a “ride board” at the SEDS Forums for the coordination of travel among participants. It may be feasible for participants arriving by air to St. Louis, Chicago, or Indianapolis to coordinate a ride with students traveling to Champaign from those cities.

For participants driving to the University of Illinois and staying, the Division of Facilities and Services offers parking permits at \$7 per day for one to three days and \$26 for a week. Meters on campus are \$0.75 per hour except between 2am and 6am when you will be ticketed for using them.

## **6. Lodging**

Two classes of lodging are available for the conference. A block of 20 rooms has already been reserved in the Illini Union for invited guests. Seventy-six rooms are available in the Union at a cost of \$86 per night with two twin beds and \$100 per night. Conference participants are welcome to reserve rooms in the Union, but are encouraged to stay at the Hampton Inn, located four blocks away on the north edge of campus. Thirty rooms will be reserved for conference participants. The Hampton Inn will offer a group rate of \$84 per night per room.

In addition to lodging in hotels, the conference planning team will set up a “lodging board” at the SEDS Forums. Conference participants who wish to save additional money by staying with University of Illinois students can use this board to communicate with potential hosts.

## 7. Budget

Item	Description	Cost per Unit	Quantity	Estimated Cost
<b>Invited guests</b>				
Lodging	Average of 20 speakers each night in Union	\$86	60	\$5,160
Travel	30 seats at average of \$350	\$350	30	\$10,500
<i>Subtotal</i>				<i>\$15,660</i>
<b>Catering</b>				
Closing lunch	Sunday afternoon	\$15	125	\$1,875
Saturday night banquet	Saturday night	\$25	75	\$1,875
Continental breakfasts	Mornings, before first session, F – Su	\$150	3	\$450
Coffee service	Mornings, after first session, F – Su	\$150	3	\$450
<i>Subtotal</i>				<i>\$4,650</i>
<b>Facilities</b>				
A/V technicians	\$75/hr/room	\$75	60	\$4,500
A/V equipment rental		\$500	4	\$2,000
Recording media	Audio/video recording of conference	\$150	4	\$600
Auditorium rental	All facilities free except Foellinger			\$500
<i>Subtotal</i>				<i>\$7,600</i>
<b>Publications</b>				
Programs		\$5	400	\$2,000
Registrant badges		\$2	400	\$800
Banners	For displays at conference site			\$500
Conference DVD/CD	Conf. proceedings for registrants	\$2	400	\$800
Other publications				\$1,000
<i>Subtotal</i>				<i>\$5,100</i>
<b>Publicity &amp; Advertising</b>				
Journal advertising				\$1,000
Flyers				\$500
Postage				\$250
<i>Subtotal</i>				<i>\$1,750</i>
<b>Estimated expenditures:</b>				<b>\$34,760</b>
<b>Funding</b>				
UI Engineering Council				\$1,000
Purdue/Illinois academic department funding				\$4,000
UI Student Org. Resource Fee				\$1,500
Illinois Space Grant				\$1,000
Sponsorship, high		\$5,000	2	\$10,000
Sponsorship, middle		\$2,500	1	\$2,500
Sponsorship, low		\$1,000	2	\$2,000
Space Fair, company		\$250	20	\$5,000
Space Fair, non-profit		\$125	5	\$625
Registration, student		\$10	300	\$3,000
Registration, non-student		\$25	30	\$750
Registration, banquet	Speakers, sponsors attend free	\$50	50	\$2,500
Registration, Sunday lunch	Speakers, sponsors attend free	\$10	100	\$1,000
<b>Estimated funding:</b>				<b>\$34,875</b>

## **8. Conclusion**

With strong memberships, active programs, and committed involvement to SEDS-USA, Purdue SEDS and Illinois SEDS are natural choices to lead the 2005 SEDS-USA national conference. In 2004, at MIT, we shared visions with professionals and other students from all corners of the country. In 2005, SEDS should build upon this vision and develop more tangible goals. We can put the vision to work. We can develop SEDS into the organization that will help us achieve our personal goals of exploring and developing space.

With help from Purdue University, the University of Illinois is the place to make this happen. Thank you for your consideration. If you have any questions about the content of the proposal, please email Kirk at [kittell@uiuc.edu](mailto:kittell@uiuc.edu) or call 309-338-5380.

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