1.0 Introduction

The Massachusetts Institute of Technology (MIT) Chapter of Students for the Exploration and Development of Space (SEDS) would be honored to host the SEDS-USA National Conference. The MITSEDS Chapter is currently planning a joint conference with the MIT Chapter of the Mars Society, one for which we will tap the contact and alumni resources of both organizations. The conference scale is hoped to be 400 attendees with college students being the target audience. Utilizing this conference as the SEDS-USA National Conference benefits all groups.

Those attending the SEDS-USA National Conference will have the opportunity to participate in all events for the joint MITSEDS-Mars Society Conference. These events include a diverse range of national and international speakers, a mini-career fair focused on smaller space-related companies, and a poster session directed towards elementary school children. In addition, with a larger selection of conference participants events such as the SEDS-USA fundraiser dinner will meet higher levels of success.

2.0 Conference Schedule

The Conference would run from Thursday, November 11 to Sunday, November 14. On Thursday, which is Veterans Day and an MIT Students Holiday, we plan to focus on events for MIT Students and events that have a restricted audience size, such as the Professional Forum on the Value Proposition for Human Space Exploration. Friday will address communicating the vision of space which includes student presentations and the student poster session for elementary school children. It is important to note that MIT classes are in session on Friday. The focus of Saturday will be commercialization of space and industry, where industry includes smaller organizations whose operation is not closely tied to NASA (i.e. not Boeing or Lockheed). Sunday's focus will be NASA and other international space agencies. A detailed schedule is attached as Appendix A below is a description of planned events. We have not yet broken down the speaker time blocks or decided upon multiple tracks; these decisions will be made based upon information provided by speakers.

3.0 Description of Events

A wide variety of events for the Conference have been proposed. Those currently appearing in the detailed schedule in Appendix A are discussed below in chronological conference order.

3.1 MIT Department Presentations

The A/A Department and EAPS Department presentation on their respective graduate programs is designed as a pre-conference activity. It is meant mainly for MIT undergraduate students and will, most likely be organized by the departments and student groups within the department. Hosting these presentations as a pre-conference event should open them to non-MIT student conference participants interested in learning more about the MIT graduate program in the two departments.

3.2 Professional Forum on the Value Proposition for Human Space Exploration

A Value Proposition is a phrase coined in the Lean Enterprise Initiative. It involves the identification of stakeholders and the value they receive from a program or

enterprise. The idea of forum on the value proposition for human space exploration formed in the MIT class "16.682 (16.810): The Aerospace Industry." Many past discussions have addressed human space exploration; there have been numerous and ongoing debates regarding human versus robotic exploration. However, a value proposition approach to the discussion is unique; it is our hope that when professionals strongly familiar with the major issues surrounding human space exploration are brought together to review the issues through the lens of a value proposition new light will be shed on the issue. An additional possible alteration to traditional forums on the topic is to pursue the negative standpoint of the issue: what is the value proposition for terminating human space exploration?

MITSEDS has received assistance from three MIT professors, Earl Murman, Jeff Hoffman and Daniel Hastings, in organizing this activity. In fact, Prof. Murman has volunteered to provide copies of his book *Lean Enterprise Value* to forum participants unfamiliar with lean enterprise principles. The Professional Forum on the Value Proposition for Human Space Exploration is designed as a pre-conference activity due to the limited audience size; however it is believed that by setting-up this event adjacent to the Conference, a higher caliber of speaker will be attracted for both.

3.3 Speakers

Speakers will be invited from a wide range of backgrounds and expertise. If each speech is one hour long, including a question and answer session, then based on the current schedule, 18 speakers will be needed along with an opening speaker, a closing speaker, a speaker for SEDS Fundraising Banquet, and a speaker for the full scale lunch. Our driving mentality as planners is "think big"; we are working MIT connections in an attempt to get Sean O'Keefe to the conference. In the past, we have received a semi-positive response from him personally saying that although he had another commitment, he would send someone in his place. We intend to follow-up through the same channels for this conference. It's a tall order to go after speakers as big as O'Keefe, but we think we can do it. Also on the list of tall orders are Tom Hanks and other novelists and professionals.

A complete list of speakers whom we intend to contact can be found in Appendix B. The list is expected to grow significantly as planning continues and we welcome suggestions.

Along with our "big" speakers that will be a fairly large stretch to get to this conference, we have also been pursuing a range of more easily obtained speakers that still have a fairly well known reputation. Rick Tumlinson, from the Space Frontier Foundation; Robert Zubrin from the Mars Society, Eric Anderson from Space Adventures, and many others.

3.4 SEDS-Exec Meetings

The time requirements for SEDS-Exec planning are unknown; however the schedule is written such that most SEDS-Exec meetings do not conflict with the conference activities. If it is desired the meetings can be scheduled to times during other conference events or before the start of conference activities in the morning. Locating a suitable room on campus for such a meeting can be done at the last minute; moreover, if

the meeting size is around 10 members the MITSEDS Office, eliminating the need for a room reservation.

3.5 Student Poster Session with Lunch

Since the focus of Friday is "Communicating the Vision", we thought it would be appropriate to include an event for local elementary, middle and high school students. The Student Poster Session provides a relaxed atmosphere for college students to present current research projects, class projects or hobby pursuits to youngsters. As the event is envisioned, interested college students will prepare a poster or demonstration item for display. The elementary, middle and high school students will be able to walk around exploring the projects and asking questions; other conference participants are also free to observe the projects. The event is designed to occur during a lunch break between speakers; thus, there will be a bagged lunch provided for those who pre-register for lunch.

3.6 Unknown Social Event

Possibilities for this event include reserving the planetarium at the Museum of Science for the evening and reserving an IMAX showing at the New England Aquarium. The goal of the event is to provide a relaxed and fun atmosphere for conference participants to socialize.

3.7 Career Fair with Lunch

MIT, like many other colleges and universities, has a number of career fairs throughout the year. Frequently the big aerospace companies and NASA are at these events; yet, rarely do the smaller companies participate. Since one day of the conference focuses on the commercialization of space and the smaller aerospace companies, we intend to incorporate these organizations in the career fair. Moreover, the career fair will be used as a means of fundraising for the conference through levels of company sponsorship.

3.8 SEDS Fundraiser Banquet

The SEDS Fundraiser Banquet is reception and dinner with a keynote speaker. Conference participants may attend the event for an additional charge. Possible keynote speakers would address topics that do not fit into program schedule.

3.9 Full Scale Lunch with Speaker

Meant to encourage discussion among students from different schools, the event requires participants to register for the lunch ahead of time for a slight additional charge. The event is not meant as a fundraiser and so the cost of the lunch will be reduced based on the funding support received. It is hoped that a speaker at the lunch will encourage more students to participate.

3.10 Space Elevator Demo

A few months ago Tom Nugent, Senior System Administrator and MIT alumnus, contacted MITSEDS to setup a demonstration of the crawler for the space elevator. We have followed up on the idea and are trying to arrange it as a component of the conference.

4.0 Listing of MIT Student Activities Resources

MIT Student Activities have a wide and varied resource pool at their disposal. These resources include those provided by the MIT Student Activities Office, room reservation space, audio/visual resources, MIT contracted catering companies, local hotels, MIT professors, and MIT departments.

4.1 MIT Student Activities Office

The Student Activities Office frequently assists groups in conference planning activities; for example, they will help to setup an online conference registration page. They are relatively flexible in helping student groups plan events and personal experience has proven that they are always helpful. At this time no one in the Student Activities Office has been contacted to assist in the planning of this conference; thus a detailed description of the resources they provide is not available. However, in addition to the registration form assistance, we expect to receive their guidance in contracting with catering companies, local hotels and travel for speakers. A few of their publicized resources can be found online at http://web.mit.edu/slp/sao/events.html.

4.2 Room Reservation Space

The various rooms and spaces at MIT are reserved through different departments and offices. The details surrounding room reservation have not been included in this proposal; however, our group has significant experience with the procedures to reserve rooms from all sources except, the MIT Faculty Club, whose services MITSEDS has yet to employ. Certain rooms have caveats associated with reserving them.

A combination of the rooms below has already been reserved for the different events in the schedule. MIT can provide rooms of all sizes ranging from maximum seating for 10 to 1226 persons. A number of these rooms can be arranged for lecture style, banquet style, conference style, etc seating at no additional charge. Many rooms also have audio/visual systems built in; however, on the scale of a 400 person conference, additional audio support is likely to be needed, which MIT can provide for a fee.

For speakers and lecture events the large rooms we intend to reserve are known as Kresge Main Stage, Wong Auditorium and 10-250. Kresge can hold 1226 people however is normally arranged to hold 1114. It is not our first choice for a reservation due to the auditorium size; however if necessary seating areas may be restricted such that an attendance of 400 will not leave the space feeling too empty. The A/V for Kresge is arranged through MIT A/V Department and a special student performance group known as E33; they arrange pricing and setup needs for each event individually. The lobby area outside of Kresge can be used for a reception or registration.

10-250 is the preferred room selection for an audience of 400. It is the second largest MIT classroom with a seating capacity of 450 persons. The A/V capabilities or the room include a rear projection booth, public address system, VCR and DVD players, video projector (1280x1024), and a 20' screen with an additional 12' screen. Access to the A/V booth is obtained through the MIT A/V Department. Since 10-250 is used for MIT classes, it will not be available for the majority of Friday.

For the mini-career fair and the student poster session (see the description of these events below) the areas known as Lobby 13; Lobby 13 is 6000 sq.ft. and is rated to hold 300 people in a reception setup.

The Professional Forum on the Value of Human Space Exploration occurs as a pre-conference event; however, conference participants arriving early who register for the event are welcome. In order not to overwhelm forum participants and to facilitate room setup for a forum style discussion, the number of participants has been restricted. We are currently working with various scheduling offices to determine the most appropriate rooms for this event.

The final area for reservation is needed for the SEDS-USA fundraiser banquet and sit down lunch on Sunday. The MIT Faculty Club is the preferred space for this even as it has been designed for such events. Space can be arranged to seat 175 and smaller dining areas exist; the chosen dining area would be selected based on the number of people who register. A/V equipment can be arranged in the MIT Faculty Club for a keynote speaker. Alternate areas for the event include Morss Hall and Lobdell Dining Area; however each of these areas seat significantly larger groups of people.

4.3 Audio/Visual Resources

MIT has a huge selection of A/V resources. Many of the rooms are equipped with projectors, VCRs and DVD players that anyone using the room may access. Additional services which are required for a conference can be arranged through the MIT A/V Department. A complete listing of their services is not necessary for this proposal; however, the curious may visit http://web.mit.edu/av/www/ for more information on services and pricing.

4.4 Local Hotels

Many hotels are located in the Cambridge area. The ones with which MIT has pre-established contracts for discount rates for groups are the Hotel @ MIT, Boston Marriot Cambridge, Cambridge Center Residence Inn by Marriot, Hotel Marlowe, Hyatt Regency Cambridge, The Kendall Hotel, Radisson Hotel Cambridge, the Royal Sonesta Hotel and the Holiday Inn in Somerville; details on these hotels, including the MIT rate can be found at http://web.mit.edu/org/c/cao/www/hotels2003/cambridge2003.htm. Moreover, thirty-nine hotels in the Cambridge and Boston area are listed at http://web.mit.edu/housing/och/hotels_boston.html.

An interesting and important possibility to note is the possible use of either the Marriot or Hotel @ MIT to host the conference on Friday when MIT will have classes and room might be difficult to reserve.

Understanding that hotels in the area are relatively expensive, there exists a possibility to house students traveling from other chapters in the dorm rooms of MITSEDS members. This option must be researched farther and the spaces would be limited.

4.5 MIT Professors

We do not intend to use MIT Professors as the main source of speakers. Though MIT Professors can provide a vast wealth of information to the pubic, we would like to provide as much value as possible to the MIT community and it is our beliefs that

bringing in outside speakers will be of more value to MIT students. Moreover, the MIT Professors cannot adequately speak on the focus for the different days of the conference (see "Conference Schedule" above).

MITSEDS and the MIT Mars Society intend to work with various professors in order to attract a more diverse and higher-level of speaker to the conference.

4.6 MIT Departments

The MIT Departments are a highly valued resource for student activities. MITSEDS has a strong relationship with the Aeronautical and Astronautical (A/A) Engineering Department. Various professors within the department will help to invite speakers through personal contacts; the A/A administrative staff has indicated an interest in planning various conference events; moreover, the A/A Department will likely assist in funding. Other departments such as the Earth, Atmospheric and Planetary Sciences (EAPS) Department provide potential similar valuable resources.

5.0 Conference Budget Estimates

A breakdown of the estimated conference costs and funding sources can be found in Appendix C. These numbers are rough estimates taken from prior conference planning experience. The expected cost is approximately $32,000 and it is believed that we have funding sources up to $34,750; however, at this time, none of the funding sources have been contacted.

Appendix A
Detailed Conference Schedule

Time	Event	Who
Thursday		
12:30 PM	Reception in Building 33 Lounge	MIT students and interested conference participants who arrive early
1:00 PM	MIT Aero/Astro Engineering Department Presentation on Grad School at MIT	MIT students and interested conference participants who arrive early
1:30 PM	MIT Aero/Astro Engineering Department Presentation on Grad School at MIT	MIT students and interested conference participants who arrive early
2:00 PM	MIT Earth, Atmospheric and Planetary Sciences Department Presentation on Grad School at MIT	MIT students and interested conference participants who arrive early
2:30 PM	MIT Earth, Atmospheric and Planetary Sciences Department Presentation on Grad School at MIT	MIT students and interested conference participants who arrive early
3:00 PM	Forum on the Value Proposition for Human Space Exploration	Select Preregistered Group (~100)
3:30 PM	Forum on the Value Proposition for Human Space Exploration	Select Preregistered Group (~100)
4:00 PM	Forum on the Value Proposition for Human Space Exploration	Select Preregistered Group (~100)
4:30 PM	Forum on the Value Proposition for Human Space Exploration	Select Preregistered Group (~100)
5:00 PM	Reception	All
5:30 PM	Welcoming Speech	All
6:00 PM	Opening Speaker	All
6:30 PM	Opening Speaker	All
7:00 PM	SEDS-Exec Meeting	SEDS-Exec Board (10-25)
7:30 PM	SEDS-Exec Meeting	SEDS-Exec Board (10-25)
8:00 PM	SEDS-Exec Meeting	SEDS-Exec Board (10-25)
8:30 PM	SEDS-Exec Meeting	SEDS-Exec Board (10-25)
9:00 PM	SEDS-Exec Meeting	SEDS-Exec Board (10-25)
9:30 PM	SEDS-Exec Meeting	SEDS-Exec Board (10-25)
Friday	Communicating the Vision (i.e. Media and Outreach)	
8:30 AM	Breakfast	
9:00 AM	Speakers / SEDS-Exec Meeting (if necessary)	All / SEDS-Exec Board (10-25)
9:30 AM	Speakers / SEDS-Exec Meeting (if necessary)	All / SEDS-Exec Board (10-25)
10:00 AM	Speakers / SEDS-Exec Meeting (if necessary)	All / SEDS-Exec Board (10-25)
10:30 AM	Speakers / SEDS-Exec Meeting (if necessary)	All / SEDS-Exec Board (10-25)
11:00 AM	Speakers / SEDS-Exec Meeting (if necessary)	All / SEDS-Exec Board (10-25)
11:30 AM	Speakers / SEDS-Exec Meeting (if necessary)	All / SEDS-Exec Board (10-25)
12:00 PM	Student Poster Session and Lunch	All with Lunch provided for the prepaid
12:30 PM	Student Poster Session and Lunch	All with Lunch provided for the prepaid
1:00 PM	Student Poster Session and Lunch	All with Lunch provided for the prepaid
1:30 PM	Student Poster Session and Lunch	All with Lunch provided for the prepaid
2:00 PM	Speakers	All
2:30 PM	Speakers	All
3:00 PM	Speakers	All
3:30 PM	Speakers	All
4:00 PM	Speakers	All
4:30 PM	Speakers	All
5:00 PM	Speakers	All
5:30 PM	Speakers	All
6:00 PM		
6:30 PM		
7:00 PM	Social Event?	All
7:30 PM	Social Event?	All
8:00 PM	Social Event?	All
8:30 PM	Social Event?	All
9:00 PM	Social Event?	All
9:30 PM	Social Event?	All

MITSEDS Proposal for Hosting SEDS-USA National Conference

Saturday	Commercialization of Space and "Small" Industry	
8:30 AM	Setup/Breakfast	
9:00 AM	Speakers	All
9:30 AM	Speakers	All
10:00 AM	Speakers	All
10:30 AM	Speakers	All
11:00 AM	Speakers	All
11:30 AM	Speakers	All
12:00 PM	Career Fair and Lunch	All with Lunch provided for the prepaid
12:30 PM	Career Fair and Lunch	All with Lunch provided for the prepaid
1:00 PM	Career Fair and Lunch	All with Lunch provided for the prepaid
1:30 PM	Career Fair and Lunch	All with Lunch provided for the prepaid
2:00 PM	Speakers	All
2:30 PM	Speakers	All
3:00 PM	Speakers	All
3:30 PM	Speakers	All
4:00 PM	Speakers	All
4:30 PM	Speakers	All
5:00 PM		
5:30 PM		
6:00 PM	Reception for the banquet	Participants who have registered
6:30 PM	SEDS Fundraiser Banquet	Participants who have registered
7:00 PM	SEDS Fundraiser Banquet	Participants who have registered
7:30 PM	SEDS Fundraiser Banquet	Participants who have registered
8:00 PM	SEDS Fundraiser Banquet	Participants who have registered
8:30 PM	SEDS Fundraiser Banquet	Participants who have registered
9:00 PM	SEDS Fundraiser Banquet	Participants who have registered
9:30 PM	SEDS Fundraiser Banquet	Participants who have registered
Sunday	NASA and other International Space Agencies	
8:30 AM	Setup/Breakfast	
9:00 AM	Speakers	All
9:30 AM	Speakers	All
10:00 AM	Speakers	All
10:30 AM	Speakers	All
11:00 AM	Speakers	All
11:30 AM	Speakers	All
12:00 PM	Lunch (Full Scale w/ Speaker)	Participants who have registered
12:30 PM	Lunch (Full Scale w/ Speaker)	Participants who have registered
1:00 PM	Lunch (Full Scale w/ Speaker)	Participants who have registered
1:30 PM	Lunch (Full Scale w/ Speaker)	Participants who have registered
2:00 PM	Speakers	All
2:30 PM	Speakers	All
3:00 PM	Speakers	All
3:30 PM	Speakers	All
4:00 PM	Closing Speaker	All
4:30 PM	Closing Speaker	All
5:00 PM	Space Elevator Demo	All
5:30 PM	Space Elevator Demo	All
6:00 PM	SEDS-Exec Meeting	SEDS-Exec Board (10-25)
6:30 PM	SEDS-Exec Meeting	SEDS-Exec Board (10-25)
7:00 PM	SEDS-Exec Meeting	SEDS-Exec Board (10-25)
7:30 PM	SEDS-Exec Meeting	SEDS-Exec Board (10-25)
8:00 PM	SEDS-Exec Meeting	SEDS-Exec Board (10-25)
8:30 PM	SEDS-Exec Meeting	SEDS-Exec Board (10-25)

Appendix B
Conference Potential Speaker List

Communicating the Vision
Robinson, Kim Stanley
Cameron, James
Hanks, Tom
Card, Orson Scott
Bear, Greg
White, Frank
Musk, Elon
Tilenius, Eric
Logsdon, John
Cowing, Keith
Benford, Greg
Klerkx, Greg
Tumlinson, Rick N.
Zubrin, Robert
Muskgrave, Story
Banke, Jim
David, Leonard
Mendell, Wendell
Oberg, James
Hidalgo, Loretta
Whitesides, George
Malloy, John
Kirk-Patric, James
Niven, Larry

Commercialization of Space
Diamandis, Peter
Bigelow, Robert
Rutan, Burt
Carmack, John
Shuttleworth, Mark
Tito, Denis
Anderson, Eric
Laine, Mike
Beal, Andrew
Bezos, Jeff
Fleeter, Rick
Ford, Celeste
Manber, Jeff
McDowell, Mike
Williams, Jim
Mott, Mike
Sheerin, Geoff

NASA
O'keefe, Sean
Walker, Robert S.
Zuber, Maria
Beckman, John
Loston, Adena
Diaz, Chang
Bush, Lance
Squires, Steve

International Space Agencies
Othman, Mazlan
Pillinger, Colin
Rodota, Antonio
Finarelli, Peggy

Appendix C
Conference Budget Estimate

Item	Description	Estimated Cost
Speakers		
hotels	25 speakers for 3 nights each at ~$100	$7,500
travel	25 speakers average $350 round trip airfair	$8,750
Catering		
Friday lunch	bag lunches --- 200 people $10 per lunch	$2,000
Saturday lunch	bag lunches --- 200 people at $10 per lunch	$2,000
Sunday lunch	sit down reception lunch --- $20 per lunch 100	$1,500
SEDS fundraiser banquet	banquet dinner --- 150 people, $30 per dinner	$4,500
continental breakfasts	3 days breakfasts approximately $150 per day	$450
Opening reception	intitial reception estimate 150 people	$200
Audio/Visual Costs		
microphones	for speakers at the rooms -- ~$50 per day	$150
videotapes	~$100 / day	$300
Technician services	~$100 / day	$300
Misc		
Programs	~$10 each, estimate 400 people	$4,000
badges/nametags	approximately 400 people	$50
posters	for displays at conference	$200
career fair	resume guide ~$1 per CD for 100 CDs	$100
Publicity & Advertising		
Ad Astra Ad	**	??
Space Times	**	??
Posters	**	??
Flyers to send to other schools	**	??
TOTAL COST:		**$32,000**
Funding Sources		
MIT Mars Society		$1,000
MIT AeroAstro department		$4,000
MIT EAPS department		$3,000
MIT Mechanical Engineering		$2,000
Space Grant		$1,000
Company Sponsorships	ask for $5000 from companies to be major sponsors, estimate two companies	$10,000
Company Career fair	$500 for a company to participate in the career fair, estimate 10-15 companies	$7,500
Registration Fees	~$10 per student, $25 for professionals (250 students, 150 professionals)	$6,250
TOTAL ESITMATED FUNDING:		**$34,750**