

FIRST SPACE RENAISSANCE INTERNATIONAL CONGRESS – 2011 DAY 2 – JUNE 26TH 2011

FREE CHAT BEFORE CONGRESS BEGIN

[11.54.28] David A Dunlop: Hi Adriano,

[11.56.49] David A Dunlop: Hi Adriano, I wanted to let you know that NSS is working with Dr. Kalam in India, John

Mankins, and Nobu Kaya in Japan, Space on developing a space solar power initiative.

[11.57.10] David A Dunlop: Canada on space solar power.

[15.25.27] *** Adriano Autino added Lyalya Lisowska ***

[15.25.49] *** Adriano Autino added James Greeson ***

[15.27.38] *** Adriano Autino added Bonny Lee Michaelson ***

[15.28.22] *** Adriano Autino added C.A. Chicoine ***

[15.29.29] *** Adriano Autino added Eric Hunting ***

[15.29.50] *** Adriano Autino added agravatb ***

[15.30.22] *** agravatb has left ***

[15.30.28] *** Adriano Autino added Jesper Jorgensen ***

[15.30.30] *** Adriano Autino added Jesús Raygoza ***

[15.56.15] James Greeson: Hello? I am not getting any connections or audio.

[15.56.40] Adriano Autino: we only will use chat

[15.57.02] James Greeson: Ah ok. Thank you.

[15.57.34] Adriano Autino: CONFERENCE WILL START AT 15.00 GMT - IN ONE HOUR

[16.16.02] Anton Volkonskiy: hi all

[16.17.53] James Greeson: hello

[16.39.23] Keith Henson: Here

http://www.linkedin.com/groupItem?view=&srchtype=discussedNews&gid=1455107&item=55607895&type=membered.com/groupItem?view=&srchtype=discussedNews&gid=1455107&item=55607895&type=membered.com/groupItem?view=&srchtype=discussedNews&gid=1455107&item=55607895&type=membered.com/groupItem?view=&srchtype=discussedNews&gid=1455107&item=55607895&type=membered.com/groupItem?view=&srchtype=discussedNews&gid=1455107&item=55607895&type=membered.com/groupItem?view=&srchtype=discussedNews&gid=1455107&item=55607895&type=membered.com/groupItem?view=&srchtype=discussedNews&gid=1455107&item=55607895&type=membered.com/groupItem?view=&srchtype=discussedNews&gid=1455107&item=55607895&type=membered.com/groupItem?view=&srchtype=discussedNews&gid=1455107&item=55607895&type=membered.com/groupItem?view=&srchtype=discussedNews&gid=1455107&item=55607895&type=membered.com/groupItem?view=&srchtype=discussedNews&gid=1455107&item=55607895&item=5560795&item=5560795&item=5560795&item=5560795&item=5560795&item=5560795&item=5560795&item=5560795

[16.40.01] Anton Volkonskiy: is it going to start soon? like 20 min&

[16.40.03] Anton Volkonskiy:?

[16.40.13] Keith Henson: is an example of a few people talking about power satellites. I seem to be the only one who understands the physics invloved

[16.40.15] Adriano Autino: CONFERENCE WILL START AT 15.00 GMT - IN 20 MINUTES

[16.40.58] Keith Henson: going to cut and paste because it applies here

[16.41.25] Jesús Raygoza: O.K., I will be checking on it. I am simultaneously doing some other things. This is a weekend, oddly, I am more busy in weekends.

[16.41.41] Keith Henson: Royce: "We would design and build a small, single person SSTO, RLV. Not that hard to do and not overly expensive."

Ah, if this were only so.

It takes about 9000 m/s to get into LEO. The best rocket engines ever made (SSME) give an exhaust velocity of 4500 m/s. The rocket equation tells you the required mass ratio (fueled vs dry) is 7.4 to one.

I.e., the structure, engines and payload can only be 13.5% of the takeoff weight. Given the current state of the art in materials, 15% is the minimum structure for a reusable vehicle.

Bottom line, it's not expensive, it's impossible to make a chemically fueled reusable SSTO.

[16.42.02] Keith Henson: Now if you are willing to use externally heated hydrogen you can get exhaust velocities much higher. If you are using hydrogen heated to 3000 deg K, you get as high as 9000 m/sec. The rocket equation gives a mass ratio a little under 3 (e actually).

Using 3, the payload and structure are 33%. So the structure can be 16%, which means reusable and the payload 16%.



But when you plug in a reasonable sized payload, like 30 tons to LEO, the power requirement of the beamed energy to heat the hydrogen goes into the tens of GW.

The cost per kg can be very low, but only when the system is operated close to full time because of the high capital cost for the beamed energy.

I.e., it doesn't make sense to start with a few flights a year, in fact it is much more expensive than current throwaway rockets.

[16.43.33] Keith Henson: sigh. all the politics in the world will not change the rocket equation one bit

[16.44.52] Keith Henson: political goals need to be within what is possible from physics. in fact that was the reason the L5 Society never went anywhere

[16.45.26] Keith Henson: the cost to get into space was 10,000 time to high for people to go on their own

[16.45.59] Keith Henson: Freeman Dyson did the analysis in his book Distrubing the Universe

[16.47.51] Krahazik Dragon: In short we seam to be at the limit of rocket based systems so new systems need to be developed.

[16.48.31] Anton Volkonskiy: what the alternatives are you think?

[16.48.46] Keith Henson: ones based on chemical fuels at least.

[16.48.58] Keith Henson: beamed energy

[16.49.04] Krahazik Dragon: For me I have bene looking into Pulse Detonation Engines

[16.49.19] Krahazik Dragon: I have herd of beam energy as another

[16.49.44] Anton Volkonskiy: did any of you heard of spider effect?

[16.50.09] Keith Henson: chemically pulse detonation will do no better than the energy in chemical fuel

[16.50.15] Krahazik Dragon: In the case of beam based systems, what if the beam wer eonly used for half of the trip into space, say from 70,000 feet up

[16.51.04] Adriano Autino: CONFERENCE WILL START AT 15.00 GMT - IN 10 MINUTES

[16.51.07] Keith Henson: it helps to reduce the cost some

[16.52.15] Keith Henson: The Oil Drum article goes into detail about using 500 MW of beamed energy for suborbital to GEO

[16.52.38] Keith Henson: starting from a Skylon that just bearly gets out of the atmosphere

[16.52.38] Jesús Raygoza: Keith is rigth. Chemical detonation will do not better than the energy in chemical fuel

[16.52.57] Krahazik Dragon: oh?

[16.53.19] Keith Henson: if it did, you would have a perpetual motion machine

[16.53.33] Krahazik Dragon: how so?

[16.53.35] Anton Volkonskiy: In a market-friendly scenario, Nanosolar claims to be able to produce electricity at 5-6 cents/kilowatt hour almost as cheap as power from coal and at about one-third the cost of other solar power.

[16.53.58] Jesús Raygoza: That is correct. Keith. Yet, as we know, we cannot do so.

[16.54.15] Anton Volkonskiy: http://www.alternative-energy-news.info/nanosolar-solar-power-lower-cost/

[16.54.28] Keith Henson: right anton

[16.54.55] Krahazik Dragon: Everything I have read on PDE claims that fuel consumption rate for a given thrust output would be a fraction of that as conventional rockets.

[16.54.55] Keith Henson: and that's what you have to think about for power satellites

[16.55.16] Adriano Autino: CONFERENCE WILL START IN 5 MINUTES

[16.55.19] Keith Henson: they have to make much power for less than coal to get a big hunk of the market

[16.55.35] Anton Volkonskiy: what is going to be the price of SBSP kiloWatt

[16.55.43] Keith Henson: kra, can you send me a pointer or mail the pdf?

[16.56.10] Keith Henson: I make a case that SBSP can get down to 2 cents per kWh or less

[16.56.18] Krahazik Dragon: Have to dig them up again. My main drive with all of my notes carshed.

[16.56.19] Anton Volkonskiy: wow

[16.56.21] Krahazik Dragon: let em look

[16.56.27] Anton Volkonskiy: 3 times mo sufficient

[16.56.34] Keith Henson: that's based on \$1600/kW and payoff in ten years

[16.56.37] Anton Volkonskiy: efficient =)

[16.57.10] Keith Henson: and of that, \$500 in transport charge for 5 kg to GEO

[16.57.35] Keith Henson: only way I can make power sats work is to get the transport cost to \$100/kg to GEO

[16.58.00] Keith Henson: and there is just no way to do that with chemical rockets, at least none I know about

[16.58.08] Adriano Autino: CONFERENCE WILL START IN 2 MINUTES

[16.58.22] Keith Henson: skylon comes closest at maybe \$300/kg, but it's still too much



[16.59.06] Keith Henson: http://www.theoildrum.com/node/7898 is about combining lasers and skylon

[16.59.08] Adriano Autino: CONFERENCE WILL START IN 1 MINUTE

[16.59.58] Keith Henson: how many are here?

[17.00.02] Adriano Autino: CONFERENCE STARTS NOW!

CONGRESS BEGIN HERE - ELECTION OF THE CHAIRPERSON

[17.00.26] Anton Volkonskiy: I see 6 persons only

[17.00.35] Adriano Autino: Good day to all the friends, to the SRI Congress Day 2

[17.00.41] Anton Volkonskiy: five

[17.00.52] Adriano Autino: Gail, are you ready?

[17.02.09] Jesús Raygoza: Good day, all.

[17.02.14] Adriano Autino: Hi Jesus

[17.02.24] Jesús Raygoza: Hi, Adriano.

[17.02.25] Anton Volkonskiy: Hi

[17.02.35] Adriano Autino: Hi Anton

[17.02.53] Adriano Autino: sorry, seems we lost Gail... just a moment

[17.04.03 | Edited 17.04.58] Bruce Mackenzie: for the minutes of the meeting, I see these people present: Adriano, Catalina, Keith H, Bruce Mackenzie, Sergio, SpaceShaft (although they may have stepped away from their computer)

[17.04.59] Adriano Autino: Dr. Feng Hsu, Hubert Foy Kum, James Greeson, Kim Peart, Krahazik Fragon

[17.05.21] *** Krahazik Dragon sent Pulse Detonation Engines.zip ***

[17.05.56] *** Adriano Autino removed G B Leatherwood from this conversation. ***

[17.06.04] Anton Volkonskiy: People you see with questionmarks - are not in your contactlist, so you don't see their status

[17.06.08] *** Adriano Autino added G B Leatherwood ***

[17.06.15] Keith Henson: krahazik send it to hkeithhenson@gmail.com

[17.06.21] Krahazik Dragon: ok

[17.06.37] Adriano Autino: Gail, Saul Perez, Stephanie, Nelson, Rob Hunt

[17.06.49] Adriano Autino: Gail, can you read us?

[17.06.54] Anton Volkonskiy: send it to digger3d@gmail.com as well

[17.07.16] G B Leatherwood: OK, Gail is back in the building

[17.07.25] Adriano Autino: Hi Gail!

[17.07.32] Jesús Raygoza: Hi, Gail. It would be nice to hear from you again.

[17.07.35] Adriano Autino: ok, I think we can start

[17.07.53] Bahadır Hilmi ALPER: Hello

[17.07.55] Adriano Autino: Everyone agree to reconfirm Gail as Chairman?

[17.07.59] G B Leatherwood: Jesus, glad you can join us

[17.08.29] Adriano Autino: I move to reconfirm Gail as chairperson for the today session

[17.08.45] Adriano Autino: please say AYE or propose another person

[17.09.05] Dr. Feng Hsu: Hello, everyone

[17.09.10] Adriano Autino: Hi Feng!

[17.09.26] Dr. Feng Hsu: Hello Adriano

[17.09.29] Anton Volkonskiy: hi

[17.09.44] Sergio Lebid: Hello Adriano and All, have we started?

[17.10.06] Anton Volkonskiv: ave

[17.10.06] Stephanie Lynne Thorburn: The connection is not good and I am getting chunks of text posted at intervals and nothing in between.. I will try to follow the agenda nevertheless.

[17.10.37] Jesús Raygoza: Thanks, Gail. I am also glad to join you guys.

[17.10.50] Krahazik Dragon: Aye

[17.11.06] Adriano Autino: ok, nobody else was proposed

[17.11.21] Adriano Autino: so you can sit on the chair, Gail:)

[17.12.13] Kim Peart: YES

[17.12.37] G B Leatherwood: Thank all of you. Have my cushion (and body armor) in place. Stephanie, just try to keep up as you can--marvels of modern technology, Skype, weather, etc., etc.

[17.12.56] Kim Peart: Good'ay Adriano - Hello SRI

[17.13.05] Adriano Autino: Hello Kim

[17.13.21] Krahazik Dragon: I propose Gail as the default chairperson for future conferances.



AGENDA OF DAY 2

- [17.13.54] G B Leatherwood: Thank you so much--I think!
- [17.14.03] *** Adriano Autino removed Sergio Lebid from this conversation. ***
- [17.14.13] *** Adriano Autino added Sergio Lebid ***
- [17.14.29] Adriano Autino: Sergio can you read us now?
- [17.14.48] Sergio Lebid: Yes thank you Adriano
- [17.14.52] Adriano Autino: ok
- [17.14.59] Kim Peart: I'll write a poem for Gail Ode of the Cairman
- [17.15.03] G B Leatherwood: The agenda for today is the same as yesterday except that Adriano will be presenting "Issue II," which is the three pronged approach to making our work successful. Adriano, you have the floor any time you're ready.

PRESENTATION OF ISSUE II - BY A. V. AUTINO

- [17.15.17] Adriano Autino: please, could all the present type READY? thanks
- [17.15.40] Kim Peart: READY!!!
- [17.15.58] Krahazik Dragon: Ready
- [17.16.05] Kim Peart: How many people are on today?
- [17.16.33] Stephanie Lynne Thorburn: Ready Adriano. Looking forward to 'hearing' Issue II.
- [17.16.36] Sergio Lebid: READY
- [17.18.34] Adriano Autino: Anton? Bruce?, Boris?, Feng, Hubert?, James, Jesus, Keith, Krahazik, Scott?, Nelson, Rob?, Walter?
- [17.18.46] wheatsheaf1: hello...testing
- [17.18.57] Adriano Autino: ok, I see all the above online, I hope all of them can read
- [17.19.25] Adriano Autino: sometime I have to disconnect and reconnect to let people really be on the chat
- [17.19.34] Sergio Lebid: Others may also be expereincing connection problem as I had
- [17.19.44] Adriano Autino: Hi Rob
- [17.19.49] Jesús Raygoza: Adriano, I am here. I may leave for a moment, but I will come back as soon as possible.
- [17.20.13] Adriano Autino: ok, let's begin, however
- [17.20.35] Adriano Autino: I hope if someone has problems they will call me
- [17.20.57] Anton Volkonskiy: here
- [17.20.57] wheatsheaf1: ready...at last
- [17.21.01] Adriano Autino: could you please download this document:
- http://www.spacerenaissance.org/SRIC/SRIC_ISSUE_II_Three_Projects.pdf
- [17.21.45] Adriano Autino: please advise when the document is open on your desktops
- [17.21.57] Sergio Lebid: Opened
- [17.22.05] Jesús Raygoza: Adriano, in case of having a problem, I could not make a call either. I could have to send an e-mail for letting you know.
- [17.22.11] Dr. Feng Hsu: I am here as well
- [17.22.25] Anton Volkonskiy: have itopen
- [17.22.29] wheatsheaf1: ready w document open
- [17.22.38] Stephanie Lynne Thorburn: I have printed out Issue I and Issue II today, so they are in front of me.
- [17.23.03] Kim Peart: Open
- [17.23.35] Krahazik Dragon: Open
- [17.24.37] Sergio Lebid: Adriano, Walter Putnam may also need to reconnected
- [17.26.04] *** Adriano Autino removed Walter C. Putnam from this conversation. ***
- [17.26.10] Hubert Foy Kum: I am online and following
- [17.26.19] *** Adriano Autino added Walter C. Putnam ***
- [17.26.53] Adriano Autino: I was just making a ping to the online persons who didn't answer
- [17.27.13] Walter C. Putnam: Here now. Sorry I'm late.
- [17.27.19] Adriano Autino: Hi Walter
- [17.27.37] Adriano Autino: here's the link to the document we are going to discuss:
- http://www.spacerenaissance.org/SRIC/SRIC_ISSUE_II_Three_Projects.pdf
- [17.27.59] Adriano Autino: we recovered some connections
- [17.28.01] Nebojsa Stanojevic: sorry I was late...



- [17.28.06] Nebojsa Stanojevic: hi all
- [17.28.07] Adriano Autino: hi Neb
- [17.28.13] Adriano Autino: http://www.spacerenaissance.org/SRIC/SRIC_ISSUE_II_Three_Projects.pdf
- [17.28.32] Nebojsa Stanojevic: thnx [17.28.38] Sergio Lebid: Hi Neb
- [17.28.56] Adriano Autino: Andreas, are you here?
- [17.29.47] Adriano Autino: ok,Mr. Chairman, I'd begin my presentation, may I have the floor?
- [17.30.04] Anton Volkonskiy: hi Neb [17.30.29] Bruce Mackenzie: (ready)
- [17.30.33] G B Leatherwood: You have the floor. However, Bahadir seems to be having trouble sending his message. Is there anything we need to do?
- [17.30.40] Adriano Autino: http://www.spacerenaissance.org/SRIC/SRIC_ISSUE_II_Three_Projects.pdf
- [17.31.53] Adriano Autino: well, yesterday we focused our analysis of the status of civilization, and our strategy to keep the civilization in development, avoiding a possible implosion
- [17.32.37] Adriano Autino: we stated that our strategy is astronautics, priority to downsize the cost to orbit, soliciting both government help and private investments
- [17.33.19] Adriano Autino: having well present that human spaceflight and geo-lunar space industrialization shall come in the highest priority
- [17.33.56 | Edited 17.34.07] Adriano Autino: within space industrialization we support SBSP, as a solution to provide energy both to space customers and to Earth
- [17.35.03] Adriano Autino: alway having present that SBSP shall be developed together with astronautics, and not alone, or instead astronautics, otherwise it could repeat the process of telecommunication during past 40 years
- [17.35.50] Adriano Autino: at this point, Feng made an important comment: that it would not be possible, since SBSP needs RLV technologies, and needs astronautics, for its development
- [17.36.32] Adriano Autino: I would kindly suggest Feng maybe he might prepare an amendment on this subject, that I take of great relevance for our strategy and position
- [17.36.58] Adriano Autino: having said the above, let's go to the today discussion
- [17.37.32] Adriano Autino: while we have a well defined political proposal, if we want to develop and incisive campaign, we need something concret
- [17.37.53] Adriano Autino: allowing us to get in touch with interlocutors in the academic world
- [17.37.59] Adriano Autino: with foundations
- [17.38.21] Adriano Autino: with communities engaged in social projects
- [17.38.30] Adriano Autino: inside and outside the space community
- [17.38.36] Adriano Autino: i'd say mostly outside
- [17.38.51 | Edited 17.39.00] Adriano Autino: since our duty is to reach the real planet Earth communities
- [17.39.17] Adriano Autino: not just the communities that are ready to listen and understand us
- [17.39.35] Adriano Autino: therefore we thought about one project
- [17.39.54] Adriano Autino: then, discussing with Alberto, we came to think two projects were better...
- [17.40.20] Adriano Autino: and, seeing the great idea proposed by Kim, we definitely understood that three was a perfect number:)
- [17.41.10] Adriano Autino: I will just recall the titles, then i will propose a possible roadmap
- [17.41.31] Adriano Autino: 1) Civilization Risk Assesment & Management Project
- 2) Detect the most promising space industrial development line
- 3) Feasibility study and design of a virtual O'Neill habitat, to be settled at an earth-Moon Lagrange Libration Point
- [17.41.55] Adriano Autino: as you can see, we are not talking about technological projects,
- [17.42.12] Adriano Autino: the third one is the most 'technological' of the three
- [17.42.55] Adriano Autino: we aim to involve not only the university faculties of engineering and science, but also economics, sociology, philosophy, humanistic faculties
- [17.43.16] Adriano Autino: we want to put not only technicians, but also philosophers at work, on this projects
- [17.43.39] Adriano Autino: this will be, in itself, a wall-breaking thing
- [17.43.56 | Edited 17.44.47] Adriano Autino: those people don't expect to be called to work on space issues
- [17.44.33] Adriano Autino: but we will put them in face of their responsibility, with project 1: the civilization is at risk, what is your risk mitigation plan?
- [17.45.14] Adriano Autino: the second project is more suitable to be proposed to economics faculties
- [17.45.42] Adriano Autino: it is a tradeoff, targeted to detect the best promising space business development line



[17.47.56] Adriano Autino: analyising several lines, such as space suborbital and orbital tourism, asteroids mining, moon industrialization, orbital industries, Lagrange platforms, try to support by figures (not just impressions or scientific knowlegdes) which idnustrial development line will allow market and industry to grow up togetehr

[17.48.05] Adriano Autino: supporting each other in a progressive way

[17.48.19] Adriano Autino: the thirs project is fascinating

[17.48.35] Adriano Autino: maybe Kim will like to add something about that

[17.49.05] Adriano Autino: we will propose to design and develop a virtual O'Neill City to be placed at Lagrange L1

[17.49.29] Adriano Autino: people will have the possibility to visit it in a virtual reality frame

[17.49.54] Adriano Autino: many commercial sub projects could derivate from that

[17.50.07] Adriano Autino: games, for isntance

[17.50.28] Adriano Autino: that could become a relevant source of financial funding

[17.50.50] Adriano Autino: so, this is the general picture of the three projects

[17.50.54] Adriano Autino: how will we proceed?

[17.51.22] Adriano Autino: step 1 will be to prepare applications for all the foundations who give grants for social projects

[17.52.05] Adriano Autino: we will try to get some money, in order to pay at least some expenses, when we will have to travel to meet universities, and possible partners

[17.53.31] Adriano Autino: step 1, also will include the preparation of the Statements of Work, a draft WBS, a work packages description, an idea of the costs

[17.54.17] Adriano Autino: costs will also depend on how many universities will accept our proposal, and how they will decide to develop it

[17.54.39] Adriano Autino: we should also be prepared to many projects to be developed for each type...

[17.55.07] Adriano Autino: maybe some universities will accept to collaborate with other ones, maybe not

[17.55.11] Adriano Autino: that's not important

[17.55.34] Adriano Autino: the importrant is that these projects will be developed, in partenrship with the SRI

[17.55.45] Adriano Autino: we will be called to hold conferences, likely

[17.56.04] Adriano Autino: this will be part of the viral comapign suggested by Sergio, yesterday

[17.57.05] Adriano Autino: step 1 includes also the rpeparation of a plan, with a list of the foudnations and of teh universities to involve

[17.57.34] Adriano Autino: step 2 we will move toward universities, and collect their availability to develop the projects

[17.58.17] Adriano Autino: we will propose to the universities to give our themes as graduation works to some of their students or to create work teams, to develop the projects

[17.59.20] Adriano Autino: step 2 will also include the preparation of a questionnaire, to be developed in project 1, a social questionnaire, about the risks of the civilization, and what will be the possible mitigation actions

[17.59.39] Adriano Autino: step 3 is the development of the projects

[18.00.12] Adriano Autino: during step 3 we whould be launched enough to reach celebrities and important donors

[18.00.52] Adriano Autino: that will be the moment we will seed our idea of the Medici Space Foundation, and maybe begin to create the seed funds for that

[18.01.24] Adriano Autino: a first milestone will be 2013, two years from now

[18.02.06] Adriano Autino: in june 2013 we should have the three projects well routed, maybe some of thema already arrived to some conclusions

[18.03.19] Adriano Autino: having some data about the real probability of the risks, we will be able to run other large surveys, this time based on a scientific work, nomore just on the words of Stephen Hawking, though fully respectable of course

[18.04.12] Adriano Autino: maybe, before analysing in detail each one of the three projects, we might open the discussion on the general setup?

OPEN DISCUSSION ON ISSUE II

[18.05.03] G B Leatherwood: First, what are your questions about what has been presented so far?

[18.05.41] Adriano Autino: my questions:

[18.07.00] Adriano Autino: a) do we think that a strategy based on foundations/universities/surveys will be the best, to develop the Space Renaissance?

b) do we think that these three ideas of projects are good enough for the above goal?

[18.07.27] Adriano Autino: c) is the proposed roadmap good enough?



[18.07.45] wheatsheaf1: general setup sounds good, but the three projects vary markedly in their palatability to the public/universities/interests. Project III seems easiest and most attractive for economic interests and development, I see Project II being quite achievable, but Project I will get bogged down in argument [18.08.29] Adriano Autino: [18.07] wheatsheaf1:

<<< will get bogged down in argumentplease say it in plainer words for a non English mother tongue...</p>

[18.09.11] Sergio Lebid: I commend you Adriano and Contributors to this as this has a very firm base to launch SRI to a much higher level of attention and activities...yes, the proposed roadmap is excellent

[18.09.13] Keith Henson: bogged down, run into too many problems

[18.09.16] Bruce Mackenzie: Proposal 3, the Virtual Space Settlement, has some similarities with some Space efforts in Second Life (SL), but is much more extensive. We should check what has already been done in SL, for example, by Cheryl and Bryce of NSS-Oregon. Note we could use OpenSim, which is free if someone has access to a internet server.

[18.09.16] wheatsheaf1: sorry - Project I will become argued by politicians/historians/scientists and no clear answer come out

[18.09.45] wheatsheaf1: @brucemacknz - agreed

[18.11.08] Adriano Autino: well, I am aware that it is extremely difficult to get a really objective picture, with project 1, but however we will put our feet in the dish, posing the problem of the global risk, and its space solution

[18.11.30] Walter C. Putnam: Isn't the main thrust of project one to get people involved, though, rather than to reach a conclusion?

[18.12.20] *** Adriano Autino added Fred Becker ***

[18.12.38] Stephanie Lynne Thorburn: I think the civilisation risk assessment concept is to really enable the public to see space development as a viable option to circumvent our vulnerability considering recent social/ environmental events. Will the SRI remain a non-profit organisation throughout the development of these three quite ambitious projects?

[18.13.14] Adriano Autino: each project will have more than one goal, a primary one and secundary ones

[18.13.16] Kim Peart: I wonder if a Think Tank could be the way to pursue the projects and gain institutional and political support - as well as industry

[18.13.40] Adriano Autino: we will aim to the main, but will be happy if some of the secundary ones will be reached [18.13.53] Sergio Lebid: @Keith, Potential problems have solutions with a concrete level of common interest and cooperation

[18.14.18] Sergio Lebid: I agree with you Adriano, always aim high!

[18.14.34] Adriano Autino: @Stephanie, yes the SRI will remain a non profit

we will see if will be convenient/useful to create other comemrcial entities when needed

[18.15.19] Bruce Mackenzie: as for getting universities involved, especially for students to work on space projects as graduation requirements - these are called: Thesis, or CapStone, or 'qualifying projects' - at the Mars Foundation, I have been trying to get this to happen for a while, and have learned it is best to get a faculty member involved first, some funding helps, ... if you get students interested first, they may be unable to find a faculty member willing to be the academic advisor. When I approached a university office or department first, they wanted major funding from the beginning, which is not worth it. ... conclusion - interest the professors first.

[18.16.01] Adriano Autino: @Bruce, agree, I was thinking the same

[18.16.27] Sergio Lebid: @Bruce, that has been my expereince also with my projects when approaching universities...

[18.16.49] Dr. Feng Hsu: I think Kim's idea of forming a SRI think tank is excellent suggestion,....SRI can remian none profit but SRI think tank could be for-profit....either way, we must resolve the funding issue....

[18.17.34] SpaceShaft: I completelly agree with Bruce, I keep trying at local universities, and all I do is spend \$\$\$

[18.17.42] Sergio Lebid: Funding, funding will be the driving force, especially during these times

[18.17.50] G B Leatherwood: @Bruce: Good point. As a Jet Propulsion Laboratory "Solar System Ambassador" I ran headon into this problem, and the same thing trying to start a high school chapter of NSS. The problem is not the kids, of any age, but the rigid curricula and finding a faculty member to sponsor outside or even classtime activities.

[18.18.16] Kim Peart: A Not For Profit organisation can receive large funding

[18.18.32] Jesús Raygoza: I do also think Kim's idea of forming a SRI think-tank is a good one.

[18.18.37] G B Leatherwood: However, we have a faculty member at Azabu University in Japan, Dr. Patrick Collins, Professor of Environmental Economics. Surely he can help us.

[18.18.56] Fred Becker: If funding is a focus, we can look at what space groups have been most successful getting funding or projects going. X-Prize is one of those.

[18.19.14] Sergio Lebid: @Gail, exactly!... Professors have access to grant opportunities



[18.19.41] Stephanie Lynne Thorburn: @Bruce, I agree that involving senior people is best first, as university faculties in my experience are reluctant and do not always get involved if idea originate outside their own departments.

[18.19.43] Adriano Autino: we already have a non profit organization: the Space Renaissance International, having an Italian VAT number and everything what needed

[18.19.44] Sergio Lebid: @Fred, exactly!

[18.20.20] Adriano Autino: @Kim, what should be a Think-Thank?

[18.20.28] Bruce Mackenzie: I suggest the SRI should NOT work on #1, because a) risks are well known, b) SRI can get side-tracked, and spend too much time documenting Earth-based risks, c) emphasizing negative aspects is not a good modivator for people, ... instead we should (1) just list the risks, and (2) spend all our efforts on off-planet SOLUTIONS to the risks.

[18.20.43] Sergio Lebid: With the appropriate viral PR campaign, fundraising will thrive

[18.21.00] wheatsheaf1: @brucemack - yes!

[18.21.01] Walter C. Putnam: @Adriano, SRI is already a Think Tank and a non-profit. What is needed is the funding.

[18.21.01] Jesús Raygoza: Yes, Gail, the regular problem is the rigid (but, many times incompetent) rigid curricula and finding a faculty member to spondor outside or even classtime activieties. Same problem in Mexico.

[18.21.26] Kim Peart: Investigation of Think Tanks - there are diverse examples

[18.21.41] Sergio Lebid: @Jesus, exactly and this is a global problem!

[18.22.00] G B Leatherwood: Bruce: I, too, am afraid this might become a climate change kind of thing with armed camps on both sides of any issue. could waste a lot of time and energy. Like the idea of proposing solutions to the known problems.

[18.22.22] Fred Becker: So Peter Diamandis should be here. Is he on this conference today?

[18.22.32] Neda Ansari: @Waltputnam - exactly! Hi everyone :)

[18.22.40] Dr. Feng Hsu: Adriano, after listening your three projects, and I agree with your thoughts. However, before any of the three project get started, we must address two most pressing and practical projects: (1) our PR plan and projects to get more people to even know about SRI and its goals, (2) a drive for funding which will make things move... agreed???

[18.23.49] Sergio Lebid: @Feng, AGREED

[18.24.03] wheatsheaf1: @Feng - agreed

[18.24.07] Adriano Autino: @Feng, agree. The two things should support eachother. The projects will make us be better known, and give us possibility to contact foundations to get grants

[18.24.29] Adriano Autino: I conceived the project as a tool to move ahead

[18.24.43] G B Leatherwood: Feng, et al., that's what Issue I was all about. Issue II projects will come after we get some of the Issue I items underway.

[18.24.44] Stephanie Lynne Thorburn: @Feng. Yes, sensible. These three projects are evocative, but the concrete PR and funding needs to be there first.

[18.24.50] Adriano Autino: we cannot somply go to donors and say: we are the SRI, give us some money

[18.24.58] Kim Peart: Gail - on the basis of the Precautionary Principle, it is possible to consider all possible risks and have plans drawn up to deal with each level of risk

[18.25.06] Sergio Lebid: @Adriano, your conceived tool is sound and now we must aggressively move forward!

[18.25.07] Adriano Autino: they will ask suddendly: what are you doing?

[18.25.19] Adriano Autino: and we will give them the SOW of our projects...

[18.25.35] wheatsheaf1: SOW???

[18.25.56] Sergio Lebid: @Stephanie, Exactly!

[18.25.56] Adriano Autino: SOW = Statement of Work

[18.26.07] SpaceShaft: Have anyone thought about getting a bunch of eng among us and work on a practical application which could generate some cash by either demonstrating something that could be supported not only by the SRI but also by public money, DARPA, or any other org. Perhaps even trying to go into some Centenial Challenges?

[18.26.19] G B Leatherwood: Ah, sorry. Misspoke. Issues I and II can work together

[18.26.48] Sergio Lebid: @Gail, Yes

[18.27.06] SpaceShaft: to me all what I hear here is very idealistic but with little that could actually convince anyone but a writter of scifi

[18.28.04] Neda Ansari: @Spaceshaft - we are moving on a blog idea.

[18.28.18] wheatsheaf1: does Project III have the best potential to get started quickly and possibly bring in some money?

[18.28.41] Adriano Autino: @Nelson, I respectfully disagree. The risk is real, and the space business development lines we are talking about are already in place (some) and could be in few years (others)



[18.28.53] SpaceShaft: I don't want to sound negative but I'm not really very philosophical and I feel I have heard these arguments before.

[18.29.09] SpaceShaft: INeda, I can see that

[18.29.09] Dr. Feng Hsu: Yesm issue I&II can certainly work together.... Issue I alone will not be enough for the PR and funding... that's why we need a PR PLAN and FUND RAISING PLAN to move forward....

[18.29.31] Sergio Lebid: @Feng, Exactly!

[18.29.32] Stephanie Lynne Thorburn: @friendly_nelson. It depends on how sci fi is presented- organisational PR that captures the imagination, so long as there is some stragegy involved too can be effective.

[18.29.47] wheatsheaf1: @Feng - PR plan very important

[18.30.13] Walter C. Putnam: @Feng, We need a fund raiser. Does anyone have experience in this?

[18.30.39] Adriano Autino: @Feng, PR Plan and Fund Raising Plan... I would love if some of us came up with concret proposals (these are the kind of things my mind is not structured to think about...)

[18.30.52] Kim Peart: Nelson - the basic engineering work of telling the story that inspires the descion to act on serious space development is yet to happen

[18.31.01] Sergio Lebid: The basic essentials needed: (1) Viral PR Campaign (2) This will then trigger FUNDING

[18.31.14] Dr. Feng Hsu: a PR PLAN and FUND RAISING PLAN should be integrated activity or project

[18.31.47] wheatsheaf1: @Sergio/Feng - good way to go

[18.32.04] Adriano Autino: However we have the basis to start: a rich web site (in progress of restyling), a non profit association

[18.32.11] G B Leatherwood: I think what is being said is that any PR plan has to have something concrete to present, otherwise it's just flash with no substance.

[18.32.23] Sergio Lebid: @Rob, feng and I are teleporting brilliant thoughts...:)

[18.32.37] Adriano Autino: @Gail, exactly. the projects try to fit this requirement

[18.33.05] Sergio Lebid: @Gail, sorry, but obviously

[18.33.18 | Edited 18.35.05] Bruce Mackenzie: we are being too negative ... #3, the Virtual Space Settlement - is a good idea, even if we only did the minimum work to create a detailed 3D digital representation, we could create good graphics and animation flying through the settlement - the visual experience really helps to get new people's attention, and to get our message out to the interested public. summary - a .jpg (picture) is worth 1024 bytes of .txt (words)

[18.33.23] wheatsheaf1: @Gail - also true, so we need to pick the ripest ideas that the public/universities will swallow, and integrate into PR?Funding attempts

[18.33.26] Jennifer Bolton: Project 3 - virtual space station model would be a useful promotional tool in PR campaign

[18.33.59] wheatsheaf1: @brucemack - yeah baby!

[18.34.23] Sergio Lebid: @Bruce, Exactly!

[18.34.25] Stephanie Lynne Thorburn: Yes, virtual space station a v. good concept.

[18.34.37] wheatsheaf1: @iennifer -agreed

[18.34.58] Sergio Lebid: @Jennifer, Exactly!

[18.35.01] Fred Becker: National Space Society is planning a PR campaign to promote space settlement. I will be sure we coordinate campaigns in some way.

[18.35.19] Sergio Lebid: @Fred, Super!

[18.35.23] Jesús Raygoza: I agree with Dr. Feng. No funds, no nothing! (y)

[18.36.07] Neda Ansari: Thanks Fred!!

[18.36.09] wheatsheaf1: the PR campaign using Virtual Hab is the bait for funding/popularity

[18.36.32] Fred Becker: There is a virtual space settlement already created here.

www.youtube.com/watch?v=oazFe2jbMxw.

[18.36.43] Kim Peart: Fredspace - collaborations in a wider movement will be essential to maximise success potential [18.37.01] Dr. Feng Hsu: That's why we almost need a "Business Plan" for the SRI although it's a non-profit org, any

group activities and goal-driven endeavors need a BUSINESS PLAN

[18.37.03] Bruce Mackenzie: @Fred Spacer, I am on some NSS committees, and am not sure which NSS PR campaign you mean, perhaps the Space Ambassador's, which will not amount to much because NSS expects the volunteers to create their own material to present to the public, with no coordination to share material, incidentally, I signed up for it, anyway.

[18.37.16] Sergio Lebid: @Kim, collaboration and cooperation always!

[18.37.56] Walter C. Putnam: I believe these three projects can proceed simultaneously. We can coordinate with others -- and create our own virtual space station.

[18.38.23] Sergio Lebid: @Walter, Agreed!

[18.38.33] Sergio Lebid: @Scott, Please elaborate...



- [18.38.42] Scott Brown: It is not concret enough for me.
- [18.39.03] Scott Brown: I believe we need something that is real not virtual i.e. Spaceport
- [18.39.39] Kim Peart: Thanks for that Fred lots of research needed find out what the full state of play is all hints welcome
- [18.39.41] Sergio Lebid: @Scott, Yes, but real costs money
- [18.40.09] Adriano Autino: I am seeing Habitat 2 on youtube... it's wonderful...
- [18.40.10] Fred Becker: The NSS space settlement PR campaign is new Bruce. It is coming from the Public Affairs Committee (also new). It will kick off in the fall.
- [18.40.29] Scott Brown: Real is how you get money. People of the world are ready for real programs, plan and real.
- [18.40.35] wheatsheaf1: @Scott agreed, but we can capture the imagination of youth which will help the viral popularity we're after
- [18.40.41] Krahazik Dragon: Virtual is a bit more dooable and less expensive in the short term and can be used as a steping stone leading up to real
- [18.40.54] Sergio Lebid: @Scott, Agreed!
- [18.41.15] Scott Brown: We have the imagination of the youth of the world what we do not have is a plan that captures more than their imagination
- [18.41.17] Sergio Lebid: @krahazik, Exactly!
- [18.41.56] Adriano Autino: @Dragon, you hit the point, exactly
- [18.42.05] wheatsheaf1: @Scott you really think we have the imagination of the worlds youth??
- [18.42.09] Adriano Autino: we discussed about embarking or not in technical projects
- [18.42.27] Scott Brown: Yes, they are just tired of waiting for us to do something.
- [18.42.30] Dr. Feng Hsu: We should approach some angel donners or investors who supports what we do and is willing to put up some financial support for us to start a PR campaign....We need \$s or Euros to start a tangible PR campaign and we need professional advice....For instance, we must produce a short video to put up on our SRI site and on YouTube as well....
- [18.42.32] Fred Becker: If we want to involve the youth, then let's activate them via the Space Generation Foundation. It is ready-made for this?
- [18.42.41] Krahazik Dragon: A virtual office as a bas eof operations and meeting place with a loby people can visit an dlook around see whats going on, read the material, see the presentations with links to real world activities and results
- [18.42.50] Bruce Mackenzie: as for #2 "2.2. Detect the most promising space industrial development " this is very important, but how does SRI fit in? many space entrepreneurs are working on promising space industries ... Can SRI help disseminate info? provide publicity? restart 'Space Business Roundtables' from the 1980's? Can we help identify Angel/VC funding and match to entrepreneurs? But, how can we do it any better than the existing groups, such as the 'Space Venture Forums'?
- [18.42.57] Adriano Autino: the SRI was not born to be a technical association
- [18.43.00] Stephanie Lynne Thorburn: Involving young people is beneficial as the SRI are essentially involved with concepts to assist in our future and promoting science & technology developments.
- [18.43.02] wheatsheaf1: @Feng great idea
- [18.43.06] Sergio Lebid: @Feng, Exactly!
- [18.43.06] Adriano Autino: it is a philosophical association
- [18.43.15] Kim Peart: In finance the futures market is about future predicted possibilities which become more real when realised but no absolute surety
- [18.43.18] Walter C. Putnam: @Scott, I think we are all talking about the same thing. We need to tell people "We are going to build a space station -- and this is what it is going to look like."
- [18.43.53 | Edited 18.44.01] Adriano Autino: we take care of astronautics anthropology, retaking the work of Ehricke and O'Neill
- [18.44.11] SpaceShaft: @Adriano: A philosophical association can fund practical projects, any ideas?
- [18.44.19] Sergio Lebid: @Walter, Exactly!
- [18.44.41] Sergio Lebid: @nelson, Exactly!
- [18.44.45 | Edited 18.44.52] Adriano Autino: we have to fill a lack of philosophical elabroation that brought the civilization where it is, in a cul de sac
- [18.44.48] wheatsheaf1: @Walter -yes
- [18.45.12] Adriano Autino: @Nelson, sure, we can, after we will have funded our priority projects
- [18.45.30] Stephanie Lynne Thorburn: @Feng. Yes, a short video and a short precis of what the SRI represent, core values/ aims would help in addition to well-constructed pdf documents.



- [18.45.44] Adriano Autino: we need to talk to normal people of this planet
- [18.45.45] Krahazik Dragon: SecondLife could be used as a virtual medium in conjunction with the website.
- [18.45.53] wheatsheaf1: @Adriano I'm still worried about your continued reference to the world being doomed. Not sure that's a good thing to work around
- [18.45.55] Sergio Lebid: All correct points however to get to the first base: (1) Agressive Viral PR campaign
- [18.46.01] Anton Volkonskiy: Space station at GEO? with protective MF, Solar PS, will cost a fortune to deliver on chemical rockets
- [18.46.32] Walter C. Putnam: @Sergio Yes
- [18.46.50] Adriano Autino: people needs to dream (the virtual space habitat is for this)
- people need to know about the future (projects one and two are for this requirement)
- [18.47.22] G B Leatherwood: Please keep in mind that SRI isn't going to build the real space city--we're going to support the establishment of a virtual space city where others can experiment that may lead to the real thing.
- [18.47.26] Sergio Lebid: @Adriano, Yes
- [18.47.41] Sergio Lebid: @Gail, Exactly!
- [18.48.06] Adriano Autino: @Rob, people are not kids, the entertainers plaid them for a fool for long time now people is taking initiative, and want to be owner of their destiny
- [18.48.17] Walter C. Putnam: @Gail, Yes. By "we" I mean the human race.
- [18.48.19] SpaceShaft: @Adriano, I agree with that, and we that are capable of so doing, that is great. But most of the people need inspiration.
- [18.48.25] Anton Volkonskiy: GEO station will be a step to a Moon station
- [18.48.47] wheatsheaf1: @Adriano, I agree with all you say, just don't think the developed world will take any notice of anyone who tells them the world is doomed unless they go into space
- [18.48.51] Sergio Lebid: @nelson, SRI will provide inspiration...
- [18.49.04] Adriano Autino: @Anton, we have to enter details of projects, yet
- [18.49.14] Scott Brown: Space ship Earth is sinking and it seems we are arranging the deck furniture and carrying on academic virtual assignments that have been done and done by others. We need to do something that is unique, gutsy, and real.
- [18.49.44] wheatsheaf1: we should sell the positives of solving earthly issues, without the 'end of the world' flavour [18.49.53] Adriano Autino: @Rob the so-called developed world is falling into a nightmare, faster than what we expected...
- [18.49.57] Sergio Lebid: the Viral PR Campaign is critically required to provide positive inspiration...nothing negative!!!
- [18.50.19] Adriano Autino: think about Ireland, Greece, Portugal, ...
- [18.50.21] wheatsheaf1: @Adriano I'm not convinced of that, at all
- [18.50.31] Krahazik Dragon: I agree Sergio
- [18.50.34] Neda Ansari: I have to agree 100% with Rob.
- [18.50.41] SpaceShaft: @sergio; but you will need something to show, young people like gadgets and not philosopy
- [18.50.47] Dr. Feng Hsu: A short video should connect SRI's goal & activities with everyone's life, such as the space-based economy is perhaps the ONLY WAY to save the western economy and breaking the paradigm of the estern world producing and selling and the western world simply buying and comssuming which is a deadly economic trape for us all.... So, we will then understand SBSP, Space Tourism and next gen space transportation etc. will help us breaking the current economic dead-loop
- [18.51.03] Krahazik Dragon: True SpaceShaft
- [18.51.09] Walter C. Putnam: @Sergio Agreed. There will always be negative aspects. We have to move forward.
- [18.51.19] wheatsheaf1: @Adriano every generation/decade has had it's world-ending issues. the world is still here and an amazing place with amazing potential
- [18.51.21] Kim Peart: Anton the orbital space settlement will be the stepping stone to the whole Solar System and beyond
- [18.51.31] Krahazik Dragon: even a plac ein SI would need interactive content tog rab peoples interest, otherwise they would just glance around right quick then TP out
- [18.51.37] Anton Volkonskiy: @Kim sure
- [18.52.00] Sergio Lebid: @Nelson, I am a scientists first and one must be a philospoher to be a good scientist...gadgets are abundant in my portfolio and i agree with you but it starts with philospohy until we get FUNDING
- [18.52.34] Anton Volkonskiy: @Kim but SS at GEO will provide SBSP station as well
- [18.52.50] Adriano Autino: @Anton, we are talking about L1, not GEO
- [18.52.57] SpaceShaft: @Sergio, that's ok for us but not for the public
- [18.52.59] Anton Volkonskiy: ok
- [18.53.04] Kim Peart: Exactly Sergio Inspiration



[18.53.53] Sergio Lebid: @Nelson, the gadgets introduced to the masses begin as philosophical concepts...

[18.54.32] Neda Ansari: @Rob - that's awesome. Maybe we can collaborate on an SRI Children's book/CD project.

That's what the children need!

[18.54.43] Jesús Raygoza: Yes, Adriano, the so-called developed countries are going to fall much faster in about a short period of time. As much as we push for Space development, perhaps we are going to convince many relevant people around the world for avoiding this fall (and underdeloped countries could fall into plain poverty).

[18.54.50] Fred Becker: We might consider the virtual space settlement as a "gadget" for demo purposes.

[18.55.09] wheatsheaf1: as a general observation, we're all in furious agreement about many aspects of the 3 projects...

[18.55.40] Sergio Lebid: @Fred, Yes

[18.55.47] Walter C. Putnam: @Rob - We seem to agree on more than we disagree on

[18.55.48] Sergio Lebid: @Rob, Yes

[18.56.24] Kim Peart: Nadia - have a look at the interactive iPad books

[18.56.24] Sergio Lebid: @Jesus, yes

[18.56.35] Adriano Autino: @Jesus, yes, this our task. To do that we need projects, PR plan, etc... but I will never agree to contribute saying to the people 'everything will be allright...", this lullaby is taking people to sleep, and not to react to the global risk

[18.56.37] wheatsheaf1: a round-table 'think tank' with pens and butvhers paper suggests itself to me

[18.57.02] Neda Ansari: Oh yes -- ipad...rings a bell :)

[18.57.36] Sergio Lebid: @Adriano, Yes, but with the emphasis on inspiring rather gloom and doom

[18.58.02] wheatsheaf1: @Sergio - yes, yes, yes

[18.58.12] Walter C. Putnam: The main thing we seem to disagree on is whether anyone will support us with the framework Adriano has presented. It's as though we were part of a social club sitting around debating whether or not anyone would want to join us. Yet, we are here.

[18.58.30] Sergio Lebid: @Walter, Agreed!

[18.58.49] Adriano Autino: @Sergio, we have to be realistic, we are the only ones giving a hope, while all the 'leaders' are just preparing people to the big holocaust

[18.59.08] wheatsheaf1: if I was Joe Public, I'd want t know *exactly* how my taxes/investment was going to benefit me

[18.59.50] Sergio Lebid: @Adriano, I agree, but we must push inspiration, the facts of the world ending are nebulous...

[18.59.56] wheatsheaf1: @Adriano - gosh, you sound very negative about our future (with respect)

[19.00.04] Jesús Raygoza: @sjl008 -- Sure!! (by the way, what is your name?)

[19.00.12] Keith Henson: I happen to think that a long buildup of space industry using extra terrestrial materials won't happen before full scale nanotechnology comes along. But I think it is possible to get the cost to GEO down far enough to build power satellites that way. but that's the result of several years work on the problem.

[19.00.18] Adriano Autino: ok, somebody was scared by my presentation yesterday?

[19.00.30] G B Leatherwood: @Rob: "a round-table 'think tank' with pens and butvhers paper suggests itself to me" LOL! That's exactly what we're having! What is now needed is to collate what's been said and priortize to see what rises to the top for a plan of action. For that we need a leader for each of the three items in Issue II.

[19.00.35] Sergio Lebid: Sorry Jesus, con mucho gusto, Sergio Lebid

[19.00.37] Kim Peart: If it is real that we face crisis - then we need to identify the level of response required - as England had to in 1940

[19.00.51] Neda Ansari: That's what bad governments do - they rule by instilling fear in people. I lived in a world like that once. That is why revolutions are happening;)

[19.00.58] Keith Henson: kim, agree

[19.01.20] Jesús Raygoza: I agree!! -- Adriano

[19.01.31] Sergio Lebid: @Neda, Yes, my experience also

[19.01.41] Scott Brown: We just had a thousand school children participate by inventing and preparing experiments which we shot off to sub-orbital space and then recovered the experiments and they are writing papers on the results. This is the time of real not imaginary. It is show me time, not tell me. We are no longer talking about it at Spaceport America www.spaceportamerica.com. We are doing it.

[19.01.48] Adriano Autino: @Neda, exactly. we have to give hope and inspiration, without denying the reality [19.02.14] Stephanie Lynne Thorburn: I think that space development simply needs to be on the agenda as a credible idea for human evolution. In a way, the SRI might measure their achievement simply in terms of changing public perceptions and encouraging existing space related organisations and government agencies of our values. The SRI maybe do not have the means to carry out the plans suggested/ proposed, but there are many affiliated space organisations connecting that may be in a better position.



- [19.02.16] Sergio Lebid: @Scott, EXCELLENT! VERY INSPIRATIONAL!
- [19.02.26] Neda Ansari: Adriano no one is scared here you're a fearless leader, having us realize things on our own :)
- [19.02.43] Sergio Lebid: @Neda, Agreed!
- [19.02.44] wheatsheaf1: @Scott, agree with Sergio 100%
- [19.02.48] Jesús Raygoza: Sergio, ¿eres de Iberoamérica?
- [19.03.12] Sergio Lebid: Jesus, de venezuela
- [19.03.33] Walter C. Putnam: @Stephanie How true. The task is to make people realize that it is another step in evolution.
- [19.03.37] Jesús Raygoza: Neda is correct, Adriano. You are a fearless leader. Good!!
- [19.03.46] Sergio Lebid: Jesus, pero vivo en EEUU
- [19.03.46] Jesús Raygoza: Segio--- Gracias.
- [19.04.06] Sergio Lebid: Jesus, por nada
- [19.04.20] Adriano Autino: ok, I think we had suggestions and comments to think about, and integrate in our initiative
- [19.04.42] Sergio Lebid: Jesus, soy venezolano-ruso
- [19.04.47] Jesús Raygoza: Sergio -- viví en USA, regresé a México para hacer unos proyectso. Después vemos.
- [19.05.06] Neda Ansari: Sergio, are you comparing me to Jesus? Sorry I don't speak Spanish:)
- [19.05.07 | Edited 19.05.17] Adriano Autino: Mr. Chairman, I propose we rapidly describe each project and try to reach a conclusion for today
- [19.05.20] G B Leatherwood: Uh, por favor, no comprendo Espanol
- [19.05.51] Sergio Lebid: @Neda, You are very humorous...thank you
- [19.06.03] Neda Ansari: You're welcome.
- [19.06.05] Jesús Raygoza: Gail -- Do you understand Euskera? I think you do!! (well, a little).
- [19.06.12] Sergio Lebid: @Adriano, Agreed
- [19.06.27] wheatsheaf1: @Adriano agreed
- [19.06.39 | Edited 19.08.00] SpaceShaft: @Keith, I read many of your analyses and even if things were possible using the technologies you suggest the owners of such technologies have zero interests in bringing down such costs, nor would I would if I where in their shoes. However as you I too am a idealist believing that a technological open sourse projects can be put in place for SBSE. and waiting for industry to have a set of systems that could be implemented will not guarantee anything. Just see at Laser Motive prize, not only \$800K but also all the contacts with the DOD and other companies that are not humnistic in any fashion
- [19.06.40] G B Leatherwood: Jesus, thanks for the reminder, but I have enough trouble with English!
- [19.07.31] Jesús Raygoza: Neda, it is very good for us to actually do a great task for the future (we have lost a generation stuck on Eart!! and it is too much to handle!!!)
- [19.07.40] Sergio Lebid: @Gail, You are doing great Mr. Chairman, thank you!
- [19.07.59] Sergio Lebid: @Jesus, Agreed!
- [19.08.13] Jesús Raygoza: Gail... you are very modest!! And, very funny!!
- [19.08.22] Kim Peart: Events in Egypt this year were totally out of the blue should enough people awaken to the need to shift our thinking to a future beyond Earth the world will roll over
- [19.08.36] G B Leatherwood: All, Adriano has asked for a summary of our thoughts, so let's see if we can hold further conversation until we do that. Sort of a mid-course correction, if you will. Adriano, can you do this briefly?
- [19.08.53] Sergio Lebid: @Kim, I disagree with you... Egypt was due to erupt for some time
- [19.09.11] Keith Henson: SpaceShaft, the technology to do this doesn't really exist yet.
- [19.09.29] Jesús Raygoza: Yes, Adriano, we need a summary.
- [19.09.54] G B Leatherwood: People, BANG goes the gavel! Adriano, the floor, the rest, please hold your thoughts.
- [19.10.04] Keith Henson: but it is fairly obvious that conventional chemical rockets simply will not do the job
- [19.10.12] Neda Ansari: @Kim I talked about this at ISDC, and it's in my book the recent events in the mid-East errupted after Michael Doornbos of Evadot did an interview with me.
- [19.10.19] Adriano Autino: many are still writing...
- [19.10.41] Sergio Lebid: Dear all, Adriano is completely correct in many critical areas, the world unfortunately is in a very tender fragile situation so it is imperative that we as SRI send the message loudly and frequently about our mission for humanity
- [19.10.57] Sergio Lebid: Sorry Mr. Cahirman
- [19.11.35] Adriano Autino: ok, i am going to try summarizing what we said, and proceed ahead
- [19.11.52] SpaceShaft: @Keith, I know that much of it does not exist, but that is not the point, right? Neither is CNT in the landscape for at least another 20 years right?



- [19.12.02] G B Leatherwood: Friendly, Keith, Neda, please hold your comments.
- [19.12.15] SpaceShaft: Ok
- [19.12.21] Neda Ansari: Will do Gail.
- [19.13.03] Adriano Autino: we are thinking to support our PR plan with three concret projects, more on the social side than on the technical one
- [19.14.10] Adriano Autino: two of these projects are positive and inspiring: the space business lines trade-off and the virtual L1 Habitat
- [19.15.13] Adriano Autino: one of the projects, the Civilization Risk Assessment & Management, is a serious assessment of the status of the civilization, faced to global risks
- [19.15.56] Adriano Autino: having had Fukushima and Gulf of Mexico, i think people will not be scared by our project, being scared enough by such epochal catastrphes
- [19.16.51 | Edited 19.20.15] Adriano Autino: one project on three is maybe more addressed to the more mature part of the Earthlings, teh ones who reason about the future, about their children jobless, etc...
- [19.17.23] Adriano Autino: It will be our sensitiveness to batch the emphasis on one or another project according to the public we will address
- [19.17.31 | Edited 19.17.51] Adriano Autino: sorry, i mean each time evaluating who we have in front
- [19.19.01 | Edited 19.22.35] Adriano Autino: however the concerns about being positive and inspirer were well received, and will orient us during the production of the materials (articles, books, plans, etc...)
- [19.19.37] Adriano Autino: the above summary could be added to our final resolution, if we agree on that
- [19.19.50] Adriano Autino: later i will propose it for voting
- [19.20.59] G B Leatherwood: Adriano, if you are ready, Friendly, Keith, and Neda have been waiting patiently for their turn, then others.
- [19.21.12] G B Leatherwood: Friendly, you go first.
- [19.22.48] SpaceShaft: pthanks, sorry for the delay, I was talking with Keith, I wonder about the projects proposed by Adriano, would they be someting interactive like an online game presenting the users
- [19.23.35] SpaceShaft: with possible scenarios? if so we will need to get programmers and all the infrastructure.
- [19.23.52] Kim Peart: Mr Chairman permission to speak at some point
- [19.24.09] G B Leatherwood: Friendly, I presume you're talking about the virtual space city?
- [19.24.16] Adriano Autino: @Nelson, the idea is to involve universities, and make students work on the projects
- [19.24.20] SpaceShaft: We could perhaps even try to get some famos people on that but I personally don't believe that is the approach I would go for
- [19.25.11] Adriano Autino: @Nelson, two projects have an annexed questionnaire, that can be made online
- [19.25.54] Adriano Autino: @Nelson, the third project will be online, allowing people to fly in absence of gravity in the center of teh hub, and walking on the peripheric ground
- [19.26.01] SpaceShaft: Involving universities is nice, I have been trying to recruit people for quite some time and I have perhps failed in being charming, but it is not something I believe will work if there is no financial insentive
- [19.26.32 | Edited 19.27.03] Adriano Autino: @for financing, we will address foundations
- [19.26.43] G B Leatherwood: Moving right along, Keith was next. Keith?
- [19.26.49] Adriano Autino: this will be the Space Renaissance projects, they will listen to us
- [19.27.11] SpaceShaft: however, I invite you to sheck out the http://eusec.warr.de website. I have been able to get some students and universities interested but there had to be a prize
- [19.27.28] Keith Henson: you want me to say something?
- [19.28.00] G B Leatherwood: Keith, not necessarily, but you were next in line. OK, Neda?
- [19.28.01] Adriano Autino: of course, prizes are key, that's why we need foundations
- [19.28.07] SpaceShaft: and if a team (heroes) we support can be used to inspire others perhaps we should go that way [19.28.28] SpaceShaft: Ok
- [19.29.15] Neda Ansari: Translating SBSP is on my priority list next, concentrating on talking with schools, as I've been starting space clubs in my local area. Any funding will be welcome, as I intend to make this an exclusive SRI project.
- [19.29.36] Keith Henson: well, if you want my opinion, there is no cost effective way yet to get into space
- [19.30.11] Keith Henson: and really no prospects for one, even skylon won't do it
- [19.30.46] Keith Henson: that is no widely recognized way.
- [19.30.47] Adriano Autino: thank you Keith! this is optimistic and inspiring enough! :D
- [19.31.04] Sergio Lebid: @Keith, within 5-7 years there will be
- [19.31.18] G B Leatherwood: Keith, you're right, but SRI isn't the one to make that happen.
- [19.31.22] Walter C. Putnam: @Keith Until compared with the costs of NOT going into space
- [19.31.43] G B Leatherwood: Kim, you wanted in. Go.



[19.31.57] Stephanie Lynne Thorburn: Some of the many 90 organisations that are already connected to the SRI might well be able to suggest ideas to into fruition the 2011-15 proposed plans and/ or practical funding.

[19.32.00] Kim Peart: All keen on the virtual world project could agree to form a working group - communicate via Email, Skype and in the virtual world - there are over 130 of them - and return with regular reports to SRI

[19.32.36] Keith Henson: beamed energy is an approach, but it just won't work on a starter scale.

[19.32.45] SpaceShaft: @keith; you are right for current technologies and how things are commercialized, but inspiration the SRI can provide to future generations is to look for a different way to commercialize the service. The thing will ultimatelly be not for the money but for humanistic values, right?

[19.33.11] Adriano Autino: @Nelson, agree

[19.33.14] Sergio Lebid: @Nelson, You are correct

[19.33.44] G B Leatherwood: Thank you, Kim. The beauty of this somewhat clumsy format is that there is a written record so all the ideas can be collected and acted upon.

[19.34.01] Kim Peart: Anyone interested in an SRI virtual world working group - please contact me

[19.34.14] SpaceShaft: thanks, but thanks to Adriano primarilly because he is the one whom has publically been advocating for it since a long time

[19.34.16] Kim Peart: kimpeart@iinet.net.au

[19.34.26] Keith Henson: well, eventually nanotechnology will cut the cost of getting into space by materials improvement

[19.34.27] Stephanie Lynne Thorburn: The SRI might also create links to significant high-profile space-related websites and post info on proposed projects via reciprocal links..

[19.34.29] Krahazik Dragon: I am in with Kim on the virtual world idea.

[19.34.35] Keith Henson: but that will probably be too late

[19.34.45 | Edited 19.35.11] Adriano Autino: @Kim, sorry, but it should be made in a more structured way, it will be an offical SRI team

[19.34.51] Sergio Lebid: @Keith, CORRECT!

[19.35.13] SpaceShaft: keith, have you looked at what I been proposing for some time already?

[19.35.15] Keith Henson: if you want to do it sooner, it's going to be expensive to set up

[19.35.29] SpaceShaft: http://spaceshaft.org [19.35.38] Sergio Lebid: @Keith, not necessarily [19.35.42] Keith Henson: space elevator?

VOTING ON ISSUE II

[19.35.42] G B Leatherwood: We still have some time, but it appears that we are ready to say whether we as a group accept, approve of, and will support the three projects stated in Issue II--but not necessarilly in the order stated. Do I hear a motion to accept?

[19.36.01] SpaceShaft: by going that way it will be possible to go in smaller steps, that couls finance other developments.

[19.36.06] Krahazik Dragon: Accept

[19.36.14] Sergio Lebid: @Gail, I mention

[19.36.20] Sergio Lebid: motion that is

[19.36.29] Krahazik Dragon: Kim I sent a request to add you to my skyp list.

[19.36.43] SpaceShaft: is something like a space elevator but is not the centrifugally extended CNT SE by Edwards

[19.36.53] G B Leatherwood: It has been moved that this group accept Issue II, is there a second?

[19.36.54] Keith Henson: oh

[19.36.58] wheatsheaf1: I move to accept

[19.37.12] Walter C. Putnam: second the motion

[19.37.14] wheatsheaf1: second

[19.37.16] Krahazik Dragon: second

[19.37.29] Neda Ansari: second

[19.37.32] Sergio Lebid: second

[19.37.50] Kim Peart: Just crashed out of Skype and climbed back in - Sure Adriano - I work within structure and report back - honesty is my policy - let's start the ball rolling and make it so

[19.38.14] SpaceShaft: FYI the guys at the ISEC don't wanted me to participate at the games because my system is not based on their pre-conditions

[19.38.17] Krahazik Dragon: Kim I sent an add request in skype.

[19.38.19] Anton Volkonskiy: second



[19.38.21] SpaceShaft: second [19.38.54] Jesús Raygoza: Second

[19.39.10] Stephanie Lynne Thorburn: I think the proposals admirable, but would not guarantee that they could definitely be brought into fruition. V. good initiative though Adriano and thanks for the presentation and hard work on the working documents & proposals.

[19.39.23] Kim Peart: Thanks Dragon - can see [19.39.47] *** Andreas P. Bergweiler has left ***

[19.39.53] G B Leatherwood: It has been moved and seconded that this group accept Issue II, is there any further discussion?

[19.39.59] Adriano Autino: We are planning to support our PR plan with three concret projects, more on the social side than on the technical one.

Two of these projects are positive and inspiring: the space business lines trade-off and the virtual L1 Habitat. One of the projects, the Civilization Risk Assessment & Management, is a serious assessment of the status of the civilization, faced to global risks. Having had Fukushima and Gulf of Mexico, people will not be scared by our project, being scared enough by such epochal catastrophes.

One project on three is more addressed to the more mature part of the Earthlings, teh ones who reason about the future, about their children jobless, etc...

It will be our sensitiveness to batch the emphasis on one or another project according to the public we will address, each time evaluating who we have in front.

However the concerns about being positive and inspirer were well received, and will orient us during the production of the materials (articles, books, plans, etc...)

[19.40.21] Fred Becker: @Adriano...whenever we bring forward a problem, we should also provide our solution. That is a good rule for avoiding fear and instilling confidence. (It is a rule used in the army).

[19.40.54] Adriano Autino: Mr. Chairman, if accepted by the congress, I will add the above text (duly revised) in our final resolution.

[19.42.46] Fred Becker: Change "inspirer" to "inspiring"?

[19.42.53] Sergio Lebid: Mr. Chairman, please advise if we are in an open forum position yet

[19.43.02] Adriano Autino: of course English shall be revised

[19.43.45] G B Leatherwood: Sergio, we are still open for discussion on the motion only. Waiting for a call for the vote.

[19.44.00] wheatsheaf1: still not happy with references to specific disasters - appears shallow, popularist and alarming

[19.44.02] Sergio Lebid: Thank you Mr. Chairman

[19.44.32] Sergio Lebid: I move that call for a vote

[19.45.06] James Greeson: @ wheatshaeaf: it works for politicans.;)

[19.45.08 | Edited 19.45.28] Adriano Autino: I move to approve the Issue II, with the integration of the text just proposed (duly revised)

[19.45.35] Stephanie Lynne Thorburn: @Wheatsheaf1. References to specific events may however be necessary to illustrate a point- although positivity is a good policy rather than being alarmist regarding the future.

[19.45.43] Sergio Lebid: I motion to accept the Issue II

[19.45.45] wheatsheaf1: @James - I thin k we're trying to be better than politicians

[19.46.17] Dr. Feng Hsu: @james, is SRI more of a political or philosophic org than a space technical org?

[19.46.49] James Greeson: at manipulating, I'm sorry, Influencing public opinion?

[19.46.53] G B Leatherwood: It has been moved and seconded that this group accept Issue II. It has been further amplified that the text provided by Adriano in his remarks be included. The vote has been called, all in favor signify by writing "Aye," those opposed, "Nay."

[19.47.03] Sergio Lebid: Aye

[19.47.09] James Greeson: aye

[19.47.18] Walter C. Putnam: @Rob - It should be understood that the list is neither definite or all inclusive.

[19.47.20] Anton Volkonskiy: aye

[19.47.24] Walter C. Putnam: Aye

[19.47.25] Krahazik Dragon: Aye

[19.47.27] SpaceShaft: Aye

[19.47.29] wheatsheaf1: ave

[19.47.32] Neda Ansari: aye

[19.47.42] Dr. Feng Hsu: aye

[19.47.45] Jennifer Bolton: aye

[19.47.46] Kim Peart: YES

[19.48.03] Jesús Raygoza: AYE



[19.49.05] Stephanie Lynne Thorburn: Yes. I think that some of today's feedback does though, need to be taken into account.

[19.49.09] Dr. Feng Hsu: @james, there is good politics or bad politics.....the urgly reality on earth is that politics or politicians DO CONTROL and DOMINATE EVERYTHING..!!

[19.49.28] Sergio Lebid: Adriano, Mr. Chairman and All, may I make request that we establish a PR Campaign Committee?

[19.50.05] Adriano Autino: I was just going to say something about the organizational issues

[19.50.33] Dr. Feng Hsu: excellent suggestion Sergio

[19.50.46] Jesús Raygoza: Very good, Dr. Feng. Besides, politicians actually, rarely are right!

[19.51.09] G B Leatherwood: I don't know what Mr. Robers would say about procedures for an on-line voting process, but seeing no "Nay" votes I declare that Issue II passed with no dissenting votes, making it unanimous among those voting. Voting is closed, motion passed.

ADJOURNING, VOLUNTEERS FOR COMMITTEES, AND FINAL FREE DISCUSSION

[19.51.11] Dr. Feng Hsu: I am 200% with you Jesus!!

[19.51.15] Adriano Autino: as to the projects, i think we should:

- give mandate to the Executive Board to coordinate the three projects

- create a team for each project, with a team manager

[19.51.38] Sergio Lebid: @Jesus, very true!

[19.51.40] Kim Peart: Looks good Gail

[19.51.45 | Edited 19.53.13] SpaceShaft: Adriano, if you have some material for PR at conferences or expo's send me some, I will put them on display at the EuSEC stand I have

[19.52.35] Jesús Raygoza: Thanks, Feng.

[19.52.44] Sergio Lebid: @Adriano, Yes!

[19.52.49] Adriano Autino: a PR Committee shall be created as well

[19.53.24] Dr. Feng Hsu: But that is our human nature or human-induced reality on earth. The existing societal politics or politicians DO DRAW the worst part of human nature....

[19.53.24] Adriano Autino: the PR Committee nucleus already exists, with Neda, Michael, Carol onboard

[19.53.54] Adriano Autino: all of the previous committees will be canceled, since they were inactive

[19.54.03] Sergio Lebid: @Feng, unfortunately true

[19.54.45] Adriano Autino: I am also happy to communicate that we are going to have a SRI India Chapter very soon

[19.55.03] Sergio Lebid: @Adriano, Excellent!

[19.55.21] wheatsheaf1: @Adriano - congratulations, due to your tireless work

[19.55.21] Neda Ansari: For those who are interested, since I made a reference to it - my interview with Michael is on Evadot (pls. search my name on www.evadot.com, since I'm not able to pull it up now). I talk about SRI there.

[19.55.22 | Edited 19.55.34] Adriano Autino: (don't know why none of the India new members were participating in these two days, problems with skype, likely)

[19.56.10] G B Leatherwood: Years ago, Robert Heinlein said that although man was the most fearsome, violent, and destructive creature that ever existed, he invented politics that allowed differences to be resolved without blowing each other's heads off. He said, "Do no ever let me hear you say 'politics' as a dirty word ever again!"

[19.56.14] Kim Peart: Great - been to India - keep adding chapters and we will get a whole book

[19.56.57] Sergio Lebid: @Gail, Very good...

[19.57.41] Jesús Raygoza: The worst part of human nature comes out when humans accept as valid a wrong philosophy (idea). Humans are easy to be influences (it is very easy to deceive humanity). Our human society is influenced by a tiny group of retrograde beings, but they almost own all the media worldwide, and so on (and we do not). Well, much to say about this subject matter... I keep silence for now.

[19.58.13] Sergio Lebid: @Jesus, You are 100% correct!

[19.58.27] Dr. Feng Hsu: What is why if we at SRI wish to do somehting good or better for humanity, we can not do it from a vacum environment, we need to face the reality.....the key is looking for GOOD OUTCOMEs but not so much the means of getting their or we will never get their....What's is why somethimes, total democracy or things determined by the public or committees are NOT necessarily good for the people themselves...there are a lot paradox and complicated to explain

[19.58.31] Walter C. Putnam: @Jesus - Fortunately, they don't own the Internet.

[19.58.36] Kim Peart: The best of human nature emerges when the love for our children extends to the whole human family

[19.58.38] James Greeson: @Jesus, yes its a subject people devote their entire lives too. and a bit off topic.



[19.59.11] wheatsheaf1: @Kim - well said

[19.59.32] Neda Ansari: @Kim - well said.

[19.59.35] Adriano Autino: Friends, may I ask here who's available to volunteer in our projects and PR committees?

[19.59.36] Sergio Lebid: @Feng, You are 100% correct and SRI represents the opportunity for reality

[19.59.54] SpaceShaft: Neda I will check it out (http://evadot.com/) later

[20.00.08] Krahazik Dragon: I can volunteer depending on the activities needed

[20.00.19] Sergio Lebid: @Adriano, I am available for the PR committee

[20.00.41] G B Leatherwood: We are nearing the end of our allotted time, so let me say thank you again for your patience, your imagination, and your creativity. We have some work to do between now and our next session on July 9, same time, same place, so looking forward to seeing you all here then. Any final words, Adriano?

[20.00.50] Jesús Raygoza: James--- right! They do not own Internet... but, what about the future on this regard?

[20.00.50] Adriano Autino: thanks Sergio!

all, please also say in which committee

[20.00.50] Fred Becker: In May of next year, I hope that SRI can participate in two big events in Washington DC. These involve the IAF, AIAA and NSS. One is the Global Space Exploration Conference and the other is the ISDC.

[20.01.07] Sergio Lebid: My pleasure Adriano!

[20.01.14] James Greeson: I can bring assets to bear. We are actually doing some parrallel work and it would be a good synergy.

[20.01.32] Kim Peart: Adriano - we appear to have practical interest to start a ball rolling with the virtual world project

[20.01.45] Krahazik Dragon: At present the only assests I have would be in working on a Virtual World project

[20.02.12] Sergio Lebid: Thank you Mr. Chairman and Adriano for conducting a great 2-day 1st Congress and for all Attendees!

[20.02.31] Krahazik Dragon: If done in SecondLife or other OpenSimulator based grid I have experience as an in-world builder, some basic scripting and familyar with OpenSimulator software.

[20.02.41] Walter C. Putnam: Yes, thank you Adriano and Gail. Great job!

[20.02.45] Fred Becker: I'm interested to help in some way! Thank you for the interesting congress.

[20.02.49] wheatsheaf1: unfortunately, I'm humbled by the assets and intelligence of this group, and fear I have little to offer

[20.02.52] Neda Ansari: Thanks EVERYONE!

[20.03.06] Krahazik Dragon: that makes 2 of us Wheatsheaf

[20.03.12] SpaceShaft: Dragon can you help in doing a small simulation for me?

[20.03.15] Jesús Raygoza: Sure... Adriano & Gail have done a great work today!!

[20.03.22] Krahazik Dragon: what kind of simulation

[20.03.38] wheatsheaf1: I'm happy to make the coffee, if someone will fly me to the location

[20.03.57] Walter C. Putnam: We all have something to offer. Sergio, if I can help on the PR committee let me know. waltputnam@gmail.com

[20.04.00] Adriano Autino: sorry, Nelson and Krahasik, could you discuss this thing outside?

[20.04.13] Fred Becker: Ha. I was just thinking about coffee.

[20.04.14] Krahazik Dragon: Nelson?

[20.04.22] Sergio Lebid: @Rob, coffee tastes better in Australia for some reason based on my experience...;)

[20.05.03] Sergio Lebid: @Walter, Thank you and we will all coordiante together

[20.05.07] Dr. Feng Hsu: I could support the PR committee as well....with ideas and thoughts and connections

[20.05.12] Adriano Autino: @Rob, don't be shy, you are in university, if i don't fail, can be very useful link

[20.05.24] Neda Ansari: Khodahafez (wave).

[20.05.28] G B Leatherwood: Anyone can hang around for as long as they want to, but this meeting is now over. See you all on July 9!

[20.05.35] Sergio Lebid: @Feng, Great, thank you

[20.05.54] wheatsheaf1: Thanks so much to Gail and Adriano, and all. bye

[20.05.57] Sergio Lebid: Thank you Gail!

[20.05.58] Adriano Autino: @Feng, thanks a lot, but you are also an expert of risk assessment & management, thus i'd like to have you in project 1

[20.06.04] James Greeson: can I plug something to get it in peoples mind and the transcript?

[20.06.21] SpaceShaft: it is for a future PowerPoint and page on my website, it consist of a walk around the space elevator infrastructure I am proposing, (see http://spaceshaft.org or

http://spaceentrepreneurs.ning.com/profile/NeslonSemino) but now is perhaps not the best time and place to go into details. my skype id is friendly_nelson

[20.06.22] Adriano Autino: James, plese do



[20.06.34] Walter C. Putnam: Goodbye, everyone. Unfortunately, will be out of wireless on July 9 and unable to join.

[20.07.15] Anton Volkonskiy: рфв ещ куищще

[20.07.21] Anton Volkonskiy: had to reboot

[20.07.23] James Greeson: Our group: http://oslv.lefora.com/ has begun work on an "open source" launch vehicle and a knowledge base to include a virtual development environment. It is in a very early nucleus stage, but we will value anyone's contribution and look forward to working with SRI.

[20.07.33] Adriano Autino: Walt, will you volunteer in some team?

[20.08.00] Walter C. Putnam: @Adriano - Yes. I told Sergio to count on me for the PR.

[20.08.02] Anton Volkonskiy: me?

[20.08.11] Adriano Autino: ah ok, thank you!

[20.08.28] Krahazik Dragon: I some one making a list of who is volunteering where?

[20.08.28] Adriano Autino: @Anton, yes why not?

[20.08.34] Anton Volkonskiy: SL

[20.08.47] Adriano Autino: we will have it from the transcript

[20.08.49] Anton Volkonskiy: I can help with virtual SS

[20.08.50] Dr. Feng Hsu: certainly Adriano. Thank you Sergio and thank you Neda and everyone

[20.09.01] SpaceShaft: @greeson; your open source project sounds familiar to me, are you in TX working with NASA?

[20.09.32] Dr. Feng Hsu: Will keep in touch via SRI google group and will see ya all in July...

[20.09.38] Jesús Raygoza: Certainly, THANK YOU ALL for being "here"!!

[20.09.39] Sergio Lebid: Thank you Feng and everyone

[20.09.55] Krahazik Dragon: not sure I am in the SRI google group

[20.09.57] James Greeson: @spaceshaft: No, this is a completely blank page project.

[20.10.12] Sergio Lebid: Jesus, Con mucho gusto!

[20.10.33 | Edited 20.10.45] Adriano Autino: ok, I think we can adjourn

thanks a lot to all of you Human Earthlings, for this great SRI Congress Day 2!

[20.10.57] James Greeson: my pleasure thank you for your efforts!

[20.11.01] Fred Becker: OK signing off for today. Let's make the future a better place.

[20.11.04] Adriano Autino: thanks Gail for your great work as a Chairman

[20.11.05] Dr. Feng Hsu: Bye for now everyone, it's past lunch time already here in Houston, Texas...

[20.11.19] Sergio Lebid: @Fred, PERFECT!

[20.11.23] Krahazik Dragon: SpaceShaft can you contact me via prvate skype IM about that simulation?

[20.11.25] Jesús Raygoza: Sergio, you may send me an e-mail to: jrb_mlh@scientist.com -- same for James ... and whoever else

[20.11.27] SpaceShaft: @Greeson, wold you consider writting a paper regarding tangentialy assisted spacecraft lanches

[20.11.28] Dr. Feng Hsu: Love you all, my fellow SRIers!

[20.11.39] Sergio Lebid: Jesus, thank you!

[20.12.06] Sergio Lebid: Feng and All, Much love and care fellow SRIers!

[20.12.09] SpaceShaft: @Dragon, yes what's your user ID

[20.12.44] Krahazik Dragon: Krahazik

[20.13.05] Krahazik Dragon: I am also Krahazik Zaytsev in SL

[20.13.12] Jesús Raygoza: Sergio --- Bien!!

[20.13.17] James Greeson: @spaceshaft: tethers and catapults?