Notes from LUVOIR 2nd Telecon
April 22, 2016, 12-1 pm eastern
Full attendee list at the end of the document

Debra Fischer welcomes everyone.

Aki: First required deliverable is comment on HQ Study Management plan, due Friday April 29. Current plan document is available at …

http://science.nasa.gov/media/medialibrary/2016/03/15/Decadal_Studies_Management_Plan-RevA1_2016_03_15.pdf

Study Office is drafting a response. We've been staring at this thing for 2+ months, so we can probably answer many of your questions. Send any questions / comments to me ASAP.

Introductions of International Ex-Officio Members:

Nick Cowan:
(Assistant professor at McGill University, Canadian Space Agency representative)
He is interested in LUVOIR because "I like planets", and he is interested in characterizing planets. LUVOIR will be the first mission to credibly constrain surface conditions of other planets. This is crucial for habitability; the definition of habitability is surface liquid water. Not to mention, it will be super interesting for geophysicists to understand how plate tectonics work on exoplanets.

Martin Barstow:
(University of Leicester, UK Space Agency representative)
Principle interests are white dwarfs in ISM, but has a longstanding instrument of developing new UV instrumentation. The excitement is looking for earthlike planets and characterize them is driving thing that makes this (i.e. LUVOIR) a worthwhile exercise.

Mark Ferrari:
(LAM Marseille, CNES representative)
Main interest is high angular resolution especially to identify Earth-sized planets, but his working area is optics and instrumentation. He mainly works on large mirror optical fabrication, compact instrumentation, wavefront sensing, coronagraphy, and adaptive optics.

Ana Gómez de Castro:
(Universidad Complutense de Madrid, SNPRDI representative)
Her main research interest is formation of planetary systems ("exoplanets are ok!"), generation of gas, impacts, photoevaporation, etc. She is the Spanish PI to World Space Observatory Mission (1.7 m space telescope). It will be devoted to UV astronomy and spectroscopy. Intended launch date in 2021. She is involved in UV instrumentation. [We may have missed a bit due to poor sound quality.]

Antonella Nota:
(ESA representative and Hubble Project Scientist)
She is interested in resolved stellar populations, and she is interested in LUVOIR because it's the future. ESA is very interested in partnership with future large missions. She is happy to be assisting the process.

Illaria Pascucci: Thomas Henning is not on the line. He is in Tucson but is not present right now. Possible he will come a little later.

Thomas Henning:
(MPIA, DLR representative)
Main interests are in exoplanet search and characterization. Co-PI of JWST MIRI, lots of experience with ground-based searches for exoplanets. Looking forward to making next big step to this type of mission.

Debra: M1 report deadline coming up

Aki: 1st required deliverable is to send STDT feedback on management plan to HQ. We in the study office have been looking at this for a couple of months now. If you have questions about it, many we can answer. Send questions and commentary to Aki. We will record this feedback and will turn it in at the end of the month. Will send reminder email to everyone with the link.

Debra: As to-do action item, everyone please look at the link once Aki sends out the link and send comments to her. Main item for today is Gary Blackwood giving us a look at decision-making process.

Gary: Thanks Debra.

Gary: Aki asked me to say a few words about decision-making process used in exoplanet programs. I was asked to brief this to the Far IR Study a couple weeks ago. Aki thought this would also be useful for the LUVOIR team to see.

Gary Blackwood on "Decision Processes": <slides>

Aki question: In the colored chart, what are the "features"?

Gary Blackwood: Features are descriptions. Wants are different. (I think I missed some of this)

Aki: Still confused. Feature 1 vs. Option 1?

Gary: Think of option as a vector set of features. Using the housing analogy, Option 1 is a house in a location with 3 bedrooms, 45 minute commute. Option 2 is house in Silver Springs, 4 bedrooms, 1 hour commute. Tick marks on slide define options. Once you have features/options listed, you can evaluate what you care about.

Musts are requirements. Wants are goals beyond the requirements -- relative science yield beyond the threshold "must", e.g. must characterize one HZ earth. "Want" would be to maximize characterizations beyond the must.

Julie: Need to be at TRL 6 by PDR. Be at TRL 5 by "key decision point b" (PDR = preliminary design review"

Nick Siegler: When filling out trade matrix, the "wants" are not numerically quantitative. We can get away with ranking "high, med, low" instead of more finely graded, more quantitative rankings.

Gary: We did this on purpose to "stay nimble." If we can't split difference through normal process, we can come back later to the wants matrix and do more careful numerical scoring if needed. But turns out we didn't need to do that in practice: the high, med, low scoring was good. We reached consensus on "99% of the matrix" with this sort of ranking.

[Laughter at consensus and dissent joke that note taker didn't catch]

Document all opinions. Document dissenting [and consenting, one assumes]

Debra: That was extremely helpful. Thank you Gary!

Brad: This was terrific! Clean process we can use.

Karl S: You may need to change your decision a few years down the road when you have a new perspective. Trade matrix may need to be filled out all over again 3-5 years down road if technology changes. It may not last over time and may have to be revisited.

Debra: That makes sense. Thanks.

Debra: Face to face May 9 and 10. Check in w/ Aki; everyone registered? Travel arrangement questions? Requests for agenda items? Now trying to reverse engineer process to figure out where need to be at certain date. We need to figure out what milestones we need to pass to be on track. Aki, are there practical or logistical comments?

Aki: Travel logistics and meeting logistics handled by NRESS (HQ review panel people). Ready to send out email to get travel orders set. Need to know which STDT members coming in person or not (waiting on response from one more STDT member). Illaria asks if can attend remotely (in the chat)? Yes, we will do our best. In addition to

STDT members, meeting is open to observers to attend or call into connect. Observers coming in person, register through LUVIOR website at Goddard on events page if you expect to have a badge waiting for you and coffee.

Someone asked about international process.

Aki: Yes, more elaborate process for badging international people wanting to come in person. Official international observers contacted separately. Process is going forward.

Shawn: Registration mostly for people not on STDT who are coming.

Aki: Yes, primarily about observers. STDT members get official email. Until we have agenda for meeting set, that's all we have right now about logistics. A little slower than we hoped, but it is moving forward!

Debra: Setting up regular telecons.

Aki: Yeah, we should set up Doodle poll for standing weekly telecon. Will send out Doodle poll next week. Also several requests from STDT members that we set face-to-face meeting dates well in advance. Debra and Brad, when do you want to start poll? Need to look at Brad's long-term schedule about what needs to be done.

Brad: So far long-term schedule just has notional dates

Aki: I think that's it! Back to you Debra!

Debra: Covered everything we hoped to cover. Brad anything to add?

Brad: No nothing to add. Working on agenda and working on list of goals and try to have out w/in a week.

Meeting Attendees: Debra Fischer, Brad Peterson, Aki Roberge, Shawn Domagal-Goldman, Ana I Gómez de Castro, Antonella Nota, Britney Schmidt, Courtney Dressing, Dave Redding, Erin Smith, Ferrari Marc, Gary Blackwood, Illaria Pascucci, Jane Rigby, John O'Meara, Julie Crooke, Karl Stapelfeldt, Kevin France, Laurent Pueyo, Leonidas Moustakas, Marc Postman, Mario Perez, Martin Barstow, Nick Cowan, Olivier Guyon, Rebekah Dawson, Victoria Meadows**,** Avi Mandell, Giada Arney, Harley Thronson, Matthew Bolcar, Norman Rioux, Ravi Kopparapu, Rita Sambruna