

## **Telecon January 3, 2011**

3-4pm

### **Agenda**

1. Welcome and introduction from Jon Morse/Rita Sambruna
2. Self introductions: what science do you hope to do with WFIRST and what background are you bringing that can be brought to bear?
3. Discussion of charter. The deliverables: two reports, summer 2011 and end of 2012. DRM. To what extent should the 2011 report focus on Euclid overlap/synergy?
4. Founding documents (descending order of precedence):
  - a) Charter
  - b) Astro2010 i) committee report and ii) EOS panel report
  - c) NRC "Implementation of NWNH" report #13045 NAP press
  - d) Astro2010 RFI's
    - a) JDEM-omega (DE science AND hardware template)
    - b) Microlensing planet finder (microlensing science)
    - c) NIRSS (IR survey science)
    - d) Ferguson-General observer program RFI (GO science)
    - e) DETF-FoM report
5. Questions from SDT regarding task
6. Organize face-to-face meeting. February, the sooner the better.
7. One way to proceed: Ask how closely we wish to hew to JDEM-omega. By what criteria do we judge impacts of deviations of proposed changes.
8. Procedural questions

### **Summary of Discussion**

Start 3:05pm

Take roll. Attending: P. Schechter, J. Green, J. Rhodes, D. Bennett, C. Bennett, T. Lauer, B. Rauscher, M. Devirian, L. LaPiana, T. Sumi, M. Donahue, B. Brown, T. Roellig, C. Baltay, K. Grady, D. Stern, C. Conselice, A. Tanner, R. Bean, N. Gehrels, Y. Wang, N. Wright, B. Nichol, W. Traub, S. Perlmutter, R. Sambruna, J. Morse

Rita S. welcomes participants and reminds everybody to familiarize themselves with the Charter. Attention is drawn on the clause in the Charter that states that any public release of information or results or findings from the SDT and PO must be coordinated with NASA. It is important to make it clear when one is expressing one's own opinion rather than the official view of the SDT. This is particularly relevant in view of the upcoming AAS meeting next week. Wes Traub asks how strict this clause is, and if there is a confidentiality agreement implied somehow. J. Morse replies that the idea behind the Charter's clause is to ensure that everybody is on the same page when it comes to implementing the Decadal's vision for WFIRST but there are no confidentiality agreements per se.

Jon M: The group has a big challenge ahead in fulfilling the expectations of the Decadal in light of the JWST re-baseline and budgetary constraints, and the NRC report on Implementing Recommendations of the decadal survey. The SDT should be familiar with the mission goals laid out in New Worlds New Horizon (NWNH) decadal survey and supporting panel reports, as well as the 4 options presented in the NRC Implementating report released in December, namely:

- (a) Launch WFIRST as defined in the NWNH in the decade 2012-2021
- (b) A joint WFIRST/Euclid mission
- (c) NASA partnership with Euclid at the 20% level
- (d) drop WFIRST and invest in other programs this decade

The SDT is being asked to develop a design reference mission (DRM) that:

- Uniquely addresses the mission goals stated in the NWNH decadal report; and
- Meets the launch date requested in NWNH (to be launched by 2021).

See the Charter for more details.

The budget envelope will be established after the FY 2012 President's Budget Request is released in February.

The first task of the SDT will be to produce an *ad interim* report due in June 2011 describing a DRM for a WFIRST mission that assumes Euclid is selected by ESA and launches before WFIRST. See the Charter for more details.

The final report due in 2012 will reflect ESA's decision on Euclid.

ESA is expected to make a decision on the M-class down selections in Sept 2011. NASA will provide a WFIRST budget envelope for planning purposes after the FY12 President's Budget Request is made known in February, but the expectation would be not to exceed \$1B, and probably less, in order to launch in that time frame.

Charles B.: Can we interpret our task so that some elements of the decadal survey description of WFIRST might be accomplished by other missions or facilities, such as Euclid, and have WFIRST focus more on what remains?

JM: This group can deliberate internally about the merits of this, paying close attention to what the decadal survey says and why they chose the approach they did, and then decide what the best WFIRST mission would be given the resources and timeline. Whatever approach the SDT devises, you would take to your colleagues in the community.

JM signs off wishing good luck.

SDT members briefly introduce themselves.

Next meeting face-to-face: February at Goddard. Paul will set up a Doodle poll. Please send the Chairs and the Executive Secretary suggestions for the agenda.

Discussion of the Charter: most important accomplishment will be delivering a report by Summer 2011 focusing on a mission design that is complementary to Euclid, or in the case that Euclid does not fly.

Bob B: What plans do the Project Office and system engineers have for supporting the SDT with technical issues and the DRM, to have a coherent design?

Kevin G: This will be one of the goals for the February meeting where we can get all the people involved in WFIRST in the same room and on the same page with the Decadal requirements.

Dave B.: With a lower budget than expected, we will need to consider changes to the original JDEM Omega design.

Charles B.: Volunteer to give a talk at the next SDT meeting about this topic based on past experience.

Items for the February meeting:

- Presentation by Kevin G on costing and cost validation
- Neil G. and PO will set up a private Website for the SDT to exchange files and communicate. Add various RFIs, NRC report
- Dave B. to present on microlensing and FoM for planets, also MPF
- How closely do we have to follow the JDEM Omega version? How would deviations address the main scientific goals? Charlie B. will give a presentation on previous studies for JDEM variants

Jim G: We will need to be very specific about the technical requirements of the mission and quantify all the parameters – photo-z's, PSF stability, pixel size, etc.

Adjourn 4:20pm.