Extended Missions

Purpose

The primary mission of TESS is a two-year survey of nearly the entire sky. There appear to be no fundamental obstacles to continuing observations for another 5-10 years. The purpose of this Working Group is to think about what TESS should do after the primary mission, and maintain a repository of ideas, analyses, and other considerations that will support decision-making and proposal-writing for TESS Extended Missions.

Members

Luke Bouma (organizer)
Josh Winn
Eric Gaidos
Peter McCullough

Email luke@astro.princeton.edu or jwinn@astro.princeton.edu if you'd like to become a member and be included on any correspondence regarding this topic.

***Everyone* on the TESS team is welcome to contribute to this section, with ideas, commentary, memos, or other materials that may be useful to decision makers regarding possible Extended Missions for TESS.**

Documents

1. **Considerations for planning TESS Extended Missions (a freely editable document by anyone)**
2. **White paper: Planet-detection simulations for several one-year Extended Mission scenarios (Luke Bouma, Josh Winn, Jacobi Kosiarek, Peter McCullough)**
3. Full list of possible Extended Mission scenarios (incl. those not discussed in above white paper)
4. 2015 Dec 15 kickoff meeting: Overview (Luke Bouma), Slides (Luke Bouma), Notes (Luke Bouma and Josh Winn)
5. 2016 May 19 meeting slides: preliminary results. Detections for postage stamps, preliminary pointing strategies. No FFIs. (Luke Bouma)
6. 2016 July 18 NExScI conference poster. Detections for postage stamps & FFIs. More results. (Luke Bouma)
7. 2016 Dec 8 meeting slides: summary of results & request for feedback. PDF. keynote. (Luke Bouma)

Data (all work from Bouma+ 2016-17 white paper)

Catalogs of planets detected over the Primary Mission:

1. Primary mission catalog (50 trials, ~60Mb)
2. Primary mission catalog legend (50 trials)
3. Primary mission catalog bar chart
4. Primary mission catalog (1 trial, ~1Mb)
5. Primary mission catalog legend (1 trial)

Extended Mission detected planet catalogs:

- Available with README at this Dropbox link (50 trials for each scenario that we simulated; ~300Mb each).
  Text link (for non-embedded viewers): https://www.dropbox.com/sh/zphk12nsw2mfv4x/AAALIBPPAExJdi_MgEdxexvRa?dl=0.