# Far-IR Surveyor (FIRS) Decadal Mission Study

## Study Plan – M2 Deliverable

Face-to-Face Meeting #1

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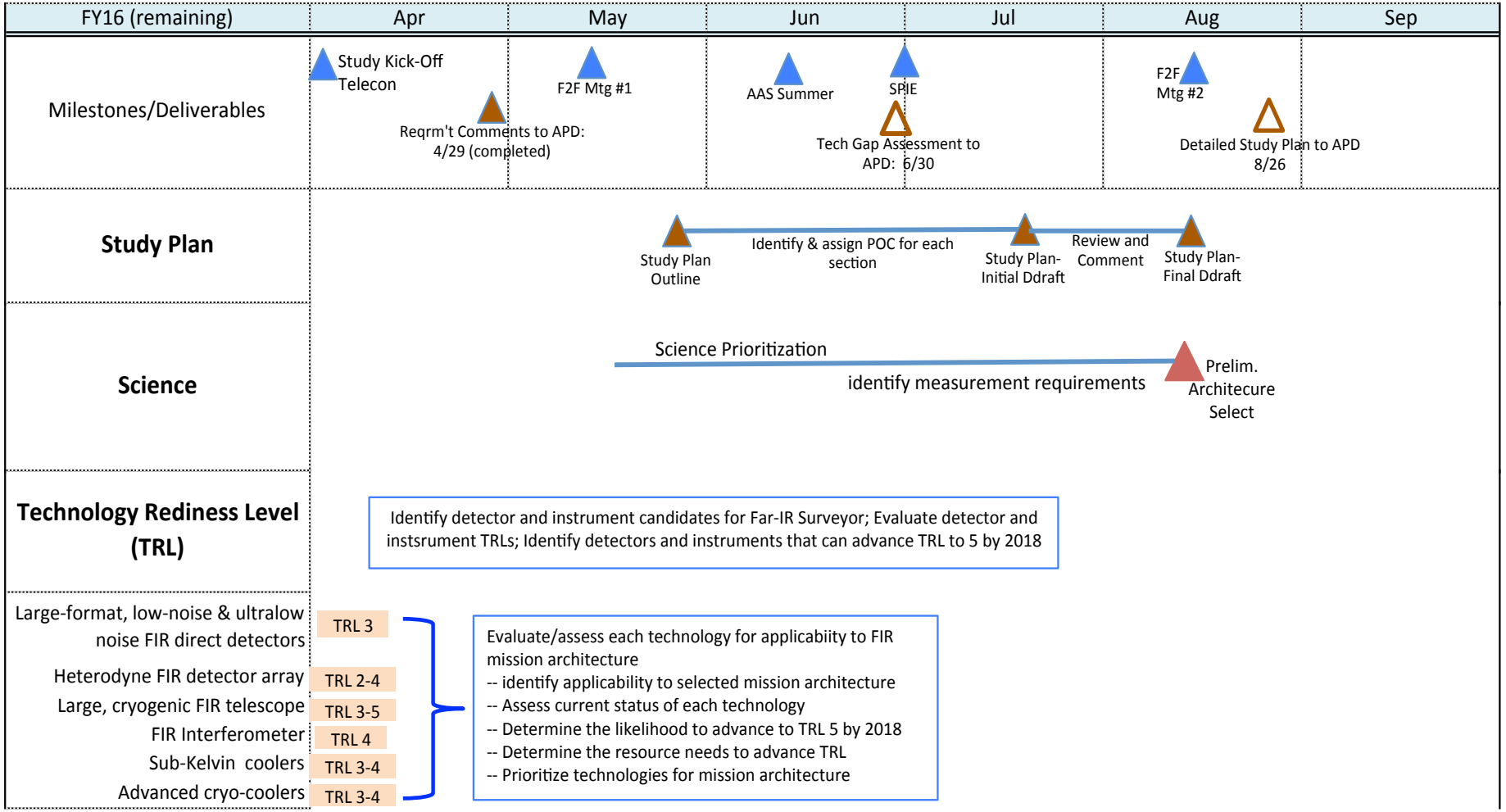
# FIRS Decadal Mission Study Plan

- The FIRS decadal mission study plan is due to NASA HQ APD on August 26, 2016.
- This plan is a detailed plan that must include the following;
  - Starting point CML and a plan for achieving Decadal CML (CML 4)
  - Enabling Technology Assessment
  - Resource required to meet the deliverables for the study duration
    - Resource needed to develop design reference mission
  - Mission Development Schedule
- In order to determine the resource needs for next three years to March 2019, the study office needs a preliminary architecture concept that defines number of instruments, aperture size, mission configuration, launch options and etc.
  - Needed to determine number of design lab runs to develop a Design Reference Mission

# APD's support for the FIRS Decadal Mission Study

- NASA HQ APD has provided the FIRS Study Team the opportunity to estimate the resource needed to perform decadal mission study
  - It is the study team's responsibility to identify tasks and estimate adequate resources for next ~3 years.
- The study team has one opportunity to request study implementation needs
  - The detailed study plan that is due in August of this year is where we can request study implementation resources.
- Along with the total resource needs, we will be laying out phasing of the funds. This is critical because inadequate funding in FY17 will directly affect DRM concept vetting process
  - Inadequate time will result in inadequate vetting of the design concept

# **Risk** of Undefined Science/Architecture by August, 2016

- Undefined science/mission architecture will result in a study plan with ill-defined study tasks
  - These ill-defined study tasks can be wrong tasks or completely irrelevant tasks
- The resource request required in the study plan will be very difficult to estimate, if not impossible, for those undefined or ill-defined tasks
  - There is a risk of creating a wrong resource profile
- The study team has only one opportunity to lay-out study tasks and request resource needs through M2 Deliverable (Study Plan)
  - Whatever we request in the study plan will be our study budget for next ~3 years
- Science definition and/or mission architecture change after August will cause re-planning of the Study in fall and early winter of this year, resulting in less time available for engineering and to a less well developed DRM

# Study Plan Schedule