LAT Instrument Test Data Analysis in Context

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Instrument Analysis Workshop 1

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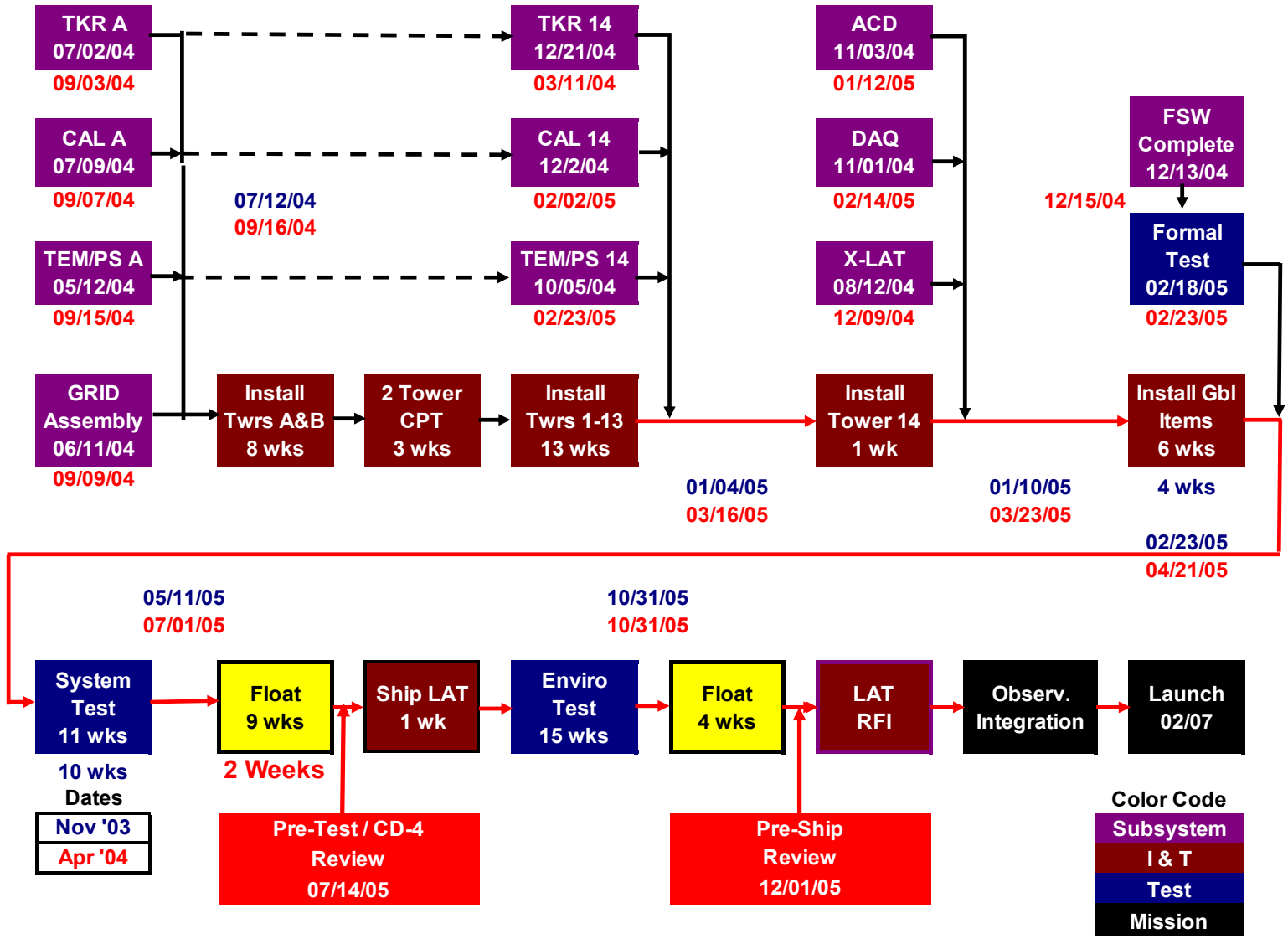
The Hardware is Coming!

- **This is a very exciting (and demanding) year for us.**
  - **after >10 years of talk, thought, planning, meetings, documents, *gigabytes* of ppt, reviews, and more reviews…flight hardware is on its way!**
  - **the exact arrival dates still uncertain (see following slide), but the first hardware should be ready for integration at SLAC in the time period between August and September.**
    - » **there are continuing threats to the schedule, but we must be prepared.**

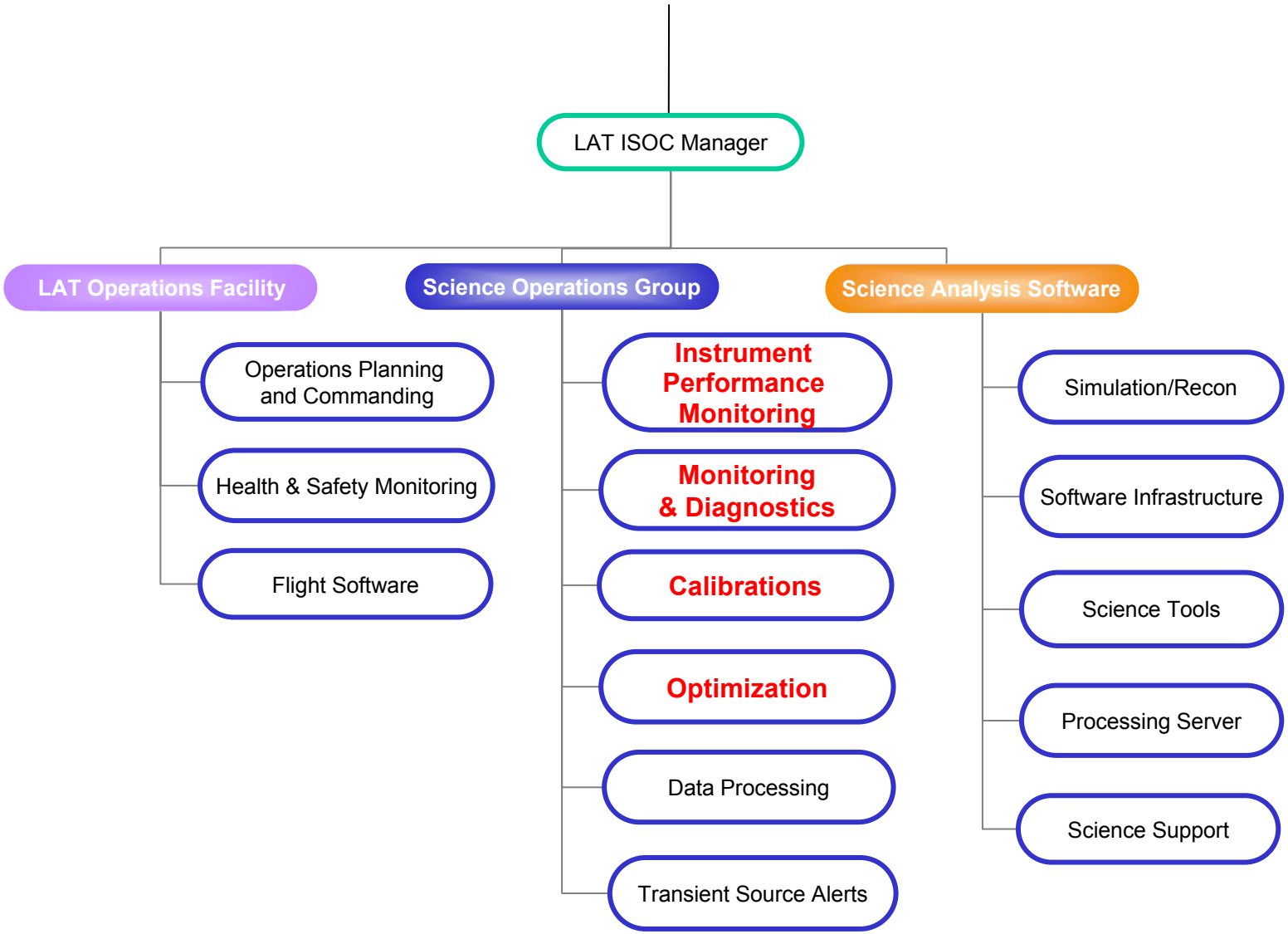
LAT Schedule



Context

- A suite of detailed test data-taking runs is being defined for each stage of the build. Using the data, there are two basic categories of data analysis:
  - (mostly) automated, basic go/no-go tests. These are done by I&T, with ~instant result turn-around to support the schedule.
  - **this work:** more detailed analyses using (very likely) the same data. A key opportunity to look for more subtle, sophisticated, and detailed effects:
    - » To uncover and quantify any instrumental effects early that could have an impact on science data analysis
    - » Are there additions to the go/no-go test suite?
    - » To apply reconstruction algorithms to real data
    - » To start the work that will evolve in the Instrument Science Operations Center (ISOC)/Science Operations Group (SOG) ⇨
    - » To grow a group to participate in the beam tests analysis effort (after instrument delivery)

Basic ISOC Components (early plan)



Conclusions

- This is the first opportunity to get to know the instrument we've been planning for so long! The start of a long relationship.
- The tasks, questions, and issues discussed at this workshop are just the start. The results will lead to more questions. The first analyses must be clearly defined. See Eduardo's talk for the goals of this workshop.
- Although these are not the critical go/no-go tests (gates to the next steps of integration), there will be time pressure to get results -- typically weeks. The collaboration is relying on this analysis being done. First results should be ready to be shown at the September collaboration meeting and at the Lehman review (probably sometime in October).
- We already have lots of experience
  - beam tests, EM tests, balloon flight, simulations and performance analysis.
- Ready to take the next big step. Enjoy!