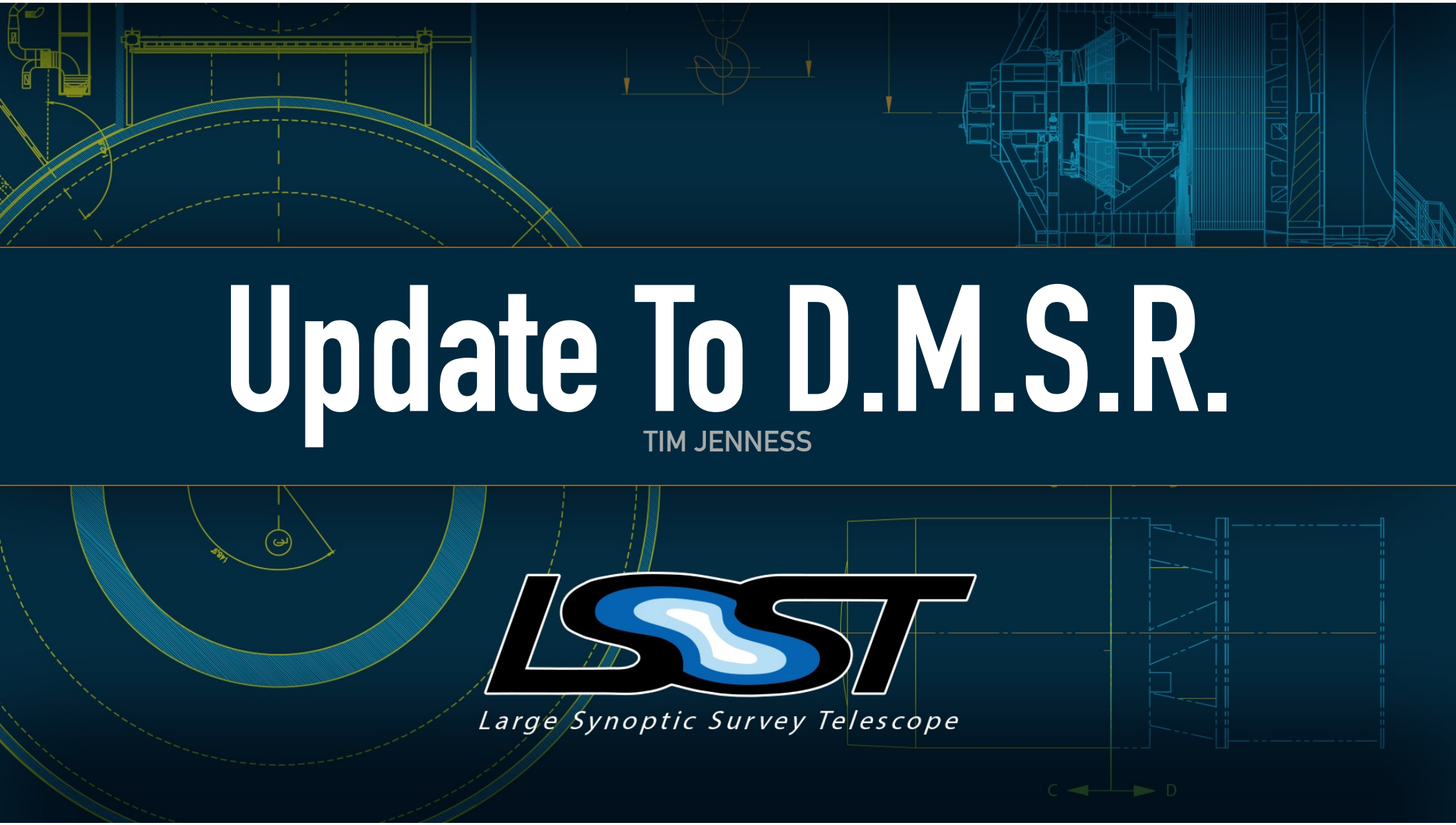

Update To D.M.S.R.

TIM JENNESS

LSST

Large Synoptic Survey Telescope

D.M. Requirements

- LSE-61 (DMSR) flows down from LSE-30 (OSS) and Data Products Definition Document (DPDD/LSE-163).
- DPDD is a “source of truth” for DM but included claims that were not part of the DM requirements (but in some cases were part of LDM-151).
- DPDD has been audited:
  - Statements in DPDD now linked to specific requirement in DMSR.
  - New requirements created when statements in DPDD had no corresponding requirement.

D.P.D.D. With Tracing

4.3.4 Precovery Measurements

When a new `DIASource` is detected, it's useful to perform PSF photometry at the location of the new source on images taken prior to discovery. These are colloquially known as *precovery measurements*[57]. Performing precovery in real time over all previously acquired visits is too I/O intensive to be feasible. We therefore plan the following:

DMS-REQ-0287

DMS-REQ-0286

1. For all newly discovered objects, perform precovery PSF photometry on visits taken over the previous 30 days[58].

   precoveryWindow

2. Make available a "precovery service" to request precovery for a limited number of `DIASources` across all previous visits, and make it available within 24 hours of the request. Web interface and machine-accessible APIs will be provided.

   DMS-REQ-0341

Other Issues

- Need to flow KPMs from SRD to DMSR but first need to get them into OSS.
- Added a requirement for HEALPix mosaics (HiPS) and pre-defined alert filters.
- Need to add new SUIT requirements (possibly as team-level requirements document rather than placing all in DMSR itself).
- Need to flow LSE-63 (QA) requirements into DMSR (and possibly OSS).
- Flow down from DMSR into DM design documents is a problem (sometimes LDM-151 had/has a statement in it that disagrees with a requirement: e.g., DIAObject to Object matching in Alerts). Who should trace DMSR to these documents?
- Need to remove unverifiable requirements ("make data release as soon as possible")
- Need to write verification plan for requirements (automation of metrics calculation and end-to-end system will help enormously with this).