



LARGE SYNOPTIC SURVEY TELESCOPE

Large Synoptic Survey Telescope (LSST) Project Office Communication Handbook

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LPM-82

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The LSST Project Office Communication Handbook

Summary

The LSST Project Office Communication Handbook describes the policies, tools, processes, and procedures used by the project office to communicate both internally within the project team and externally with stakeholders, the public, and the scientific community.

Definitions of Terms

- Glossary of Abbreviations ([Document-11921](#))
- Glossary of Definitions ([Document-14412](#))

Reference Documents

- AT Conference Numbers (Document-3345)
- Change Control Process (LPM-19)
- Change Controlled Document Cover Page and Style Guide (Document-9224)
- Contacts Database to Mailman listserv Mapping (LPM-83)
- Disaster Recovery Plan (LPM-101)
- Document Cover Page and Style Guide (Document-11920)
- Document Management Plan (LPM-51)
- Funding Acknowledgement (Document-3607)
- IT Cybersecurity Policy (LPM-100)
- List of PR Packet Contents (Document-2616)
- LSST Project Administration Policies (LPM-97)
- LSST Project Publications Style Manual (Document-13016)
- New Employee Orientation Pack (Document-13942)
- Press Release Procedure (Document-3604)
- Publications Board Paper Review Process Diagram (Document-14474)
- Publication Policy (LPM-53)
- Reporting Calendar for CSA AST-1227061 (Document-14580)
- Review Definitions, Guidelines, and Procedures (LSE- 159)
- Review Hub Procedures (LPM-99)
- Safety Policy (LPM-18)
- Speakers Bureau Website Guide (LPM-100)
- Work Breakdown Structure (WBS) (LPM-43)
- Work Breakdown Structure (WBS) Dictionary (LPM-44)



The LSST Project Office Communication Handbook

1 LSST Communications Policy

The LSST Project Office (LSSTPO) is committed to ensuring that communications across the LSST Project are well coordinated, effectively managed, and responsive to the diverse information needs of the distributed team, public, and stakeholders.

It is the policy of the LSSTPO to

1. Provide timely, accurate, clear, and complete information about its policies, procedures, decisions, tools, and actions;
2. Ensure that the LSSTPO is visible, accessible, and accountable;
3. Employ varied communication methods, in multiple formats, to accommodate diverse needs;
4. Identify and address communication needs and issues routinely in the development, implementation and evaluation of policies, procedures, decisions, tools, and actions; and
5. Ensure all elements of the distributed project team work collaboratively to achieve coherent and effective communications.

2 The LSST Project Office

The LSST Project Office (LSSTPO) and LSST Project Manager (PM) manage LSST's cost, schedule, and distributed technical work package teams as a single integrated project. The LSSTPO is located on the fifth floor of the University of Arizona's Steward Observatory. For detailed information about visiting the LSSTPO, see <https://www.lsstcorp.org/content/visiting-lsst-corporation-noao>.

2.1 Organization and Staffing

The LSSTPO is a stand-alone center of the Association of Universities for Research in Astronomy (AURA). Under this arrangement established in October 2011, AURA assumes full fiduciary responsibility and accountability for the NSF funds awarded for LSST. AURA also provides administrative services, advocacy, and oversight. Management authority has been delegated to the LSST Director, who reports directly to the AURA President. Some technical and management decisions require approval of the AURA Management Council for LSST (AMCL), an oversight body established by the AURA Board of Directors to ensure the LSSTPO fulfills AURA's contractual responsibilities.

In cooperation with AURA, the LSST Corporation (LSSTC) Board of Directors provides recommendations, advice, and input on all key management and science decisions subsequently acted upon by the AMCL. The Arizona 501(c)3 not-for-profit LSSTC formed in 2003 to lead the effort to build the LSST.

The LSST Project has been planned as a joint National Science Foundation (NSF)/U.S. Department of Energy (DOE) project with the agencies sharing the construction costs. The Joint Oversight Group (JOG), comprised of representatives from the NSF and DOE, meets regularly with LSST senior management to coordinate the Project's activities.

As the lead agency, the NSF monitors overall project cost and schedule performance relative to the baseline and ensures that the system's science requirements are met. The NSF is responsible for the telescope, physical site, telescope facility, and data management system. Through a collaboration of national laboratories led by SLAC National Accelerator Laboratory, the DOE has assumed technical and financial responsibility for providing the LSST camera. Although the Camera project manages its own schedule and budget, including contingency, the Camera team's schedule and requirements are integrated with the larger Project. The camera effort is accountable to the LSSTPO.

See the "New Employee Orientation Pack" ([Document-13942](#)) for job descriptions and additional information about the relationships between entities.



- The dashed line indicates that the project office reports on the status of the project directly to NSF and to the JOG through regularly scheduled telecons, written management reports, and face-to-face meetings as required.
- The Director of LSST reports directly to the President of AURA.
- The AMCL provides management oversight, recommends the appointment of the director, and recommends approval of major contracts.

Figure 1-1 LSST Organizational Chart

2.2 Incoming and Outgoing Mail

The LSST Administrative Assistant is responsible for distributing incoming and outgoing mail for the LSSTPO. He or she should make a daily, afternoon mail run.

- **Incoming Mail** is delivered to Steward Observatory and placed in LSST's box in the ground floor mail room. Distribution of mail by the Steward office should be complete by 2 pm each day.
- **Incoming Interoffice Mail** from AURA CAS or the Telescope and Site group is placed in LSST's mailbox in the NOAO building.
- **Outgoing Mail** with postage can be dropped off at either Steward or NOAO. Unstamped outgoing mail should be placed in the Shipping/Receiving mailbox in NOAO. They will apply postage.
- **Outgoing Interoffice Mail** should be placed in the appropriate department's mailbox in NOAO.
- **Outgoing FedEx Packages** with completed shipping documents can be dropped off in the Steward Business Office or at AURA S/R. The daily pickup time for both locations is 3:30 pm. AURA S/R will come to the LSSTPO to pick up heavy or bulky packages; call to request pickup.

MAIL TRACKING LOG

Incoming mail must be logged into the Mail Tracking Log found on the LSST share drive – adminstuff on 'pdc' (L:). Each sheet of this Excel workbook represents a quarter (e.g. January to March 2013).

DELIVERIES

Packages addressed to 933 N. Cherry Avenue will be delivered to the Steward Business Office annex on the southwest corner of Second Street and Cherry Avenue. Annex staff should send an email when they have packages for LSST; however, this does not always happen in a timely fashion, so if the LSSTPO is expecting a particular package, it may be prudent for the administrative assistant to proactively check the annex for packages.

Packages addressed to 950 N. Cherry Avenue will be delivered to AURA Shipping and Receiving. S/R staff will deliver packages to the LSSTPO. Again if a package is expected, it may be prudent to proactively check with S/R rather than awaiting notification of receipt from them.

3 Communications within the Project (Intranet, Internal Systems & Tools)

This section describes the systems and tools established to serve the functions of the LSSTPO. These tools are accessible through the project's password-protected intranet, which has been created using the Drupal content management platform. The website (<https://www.lsstcorp.org>) is hosted on an LSST Linux server.

3.1 Access & Permissions

Access to tools and applications on the project's Intranet is restricted to project team members, Science Collaboration members, representatives of oversight groups, and other specially designated parties authorized by the Project Manager. LSST manages access and permissions through active directory. This allows team members to use the same LSST account for access to DocuShare, the Science Collaboration wiki, the Review Hub, etc.; however, individuals with an active directory account, particularly Science

Collaboration members, do not necessarily have a DocuShare account.

The LSST IT Systems Administrator is responsible for creating and maintaining the active directory accounts. Granting of account privileges is at the discretion of the relevant subsystem manager; however, the Project Manager holds the ultimate decision-making authority.

Further information about LSST user access policies and procedures can be found in the IT Cybersecurity Policy (LPM-102).

3.2 Disaster Recovery

In the event of a disaster, the LSST Project Office's (LSSTPO) first priority is to prevent loss of life. Before any secondary measures are undertaken, LSSTPO will ensure that all employees and any other individuals on the organization's premises are safe and secure. A call tree and emergency contact phone list can be found in the Disaster Recovery Plan (DRP; [LPM-101](#)).

After the safety of employees and other individuals has been secured, LSSTPO will enact the steps outlined in the DRP to restore the organization's groups and departments to business-as-usual as quickly as possible. This includes:

- Preventing the loss of resources such as hardware, data, and physical IT assets
- Minimizing IT-related downtime
- Keeping the business running in the event of a disaster

3.3 Contacts Database & Mailman List Serves

The ContactsDB and Mailman lists are synchronized so that new contacts entered into the ContactsDB get added to the appropriate project-controlled Mailman list and new subscribers to a project-controlled Mailman list are entered into the ContactsDB. Updates made to ContactsDB groups take effect the following day in their corresponding project-controlled Mailman lists, after the appropriate scripts have run overnight. A matrix mapping Mailman listservs to their corresponding Contacts DB subcategories can be found in [LPM-83](#). A detailed description of the synchronization process can be found in Appendix A.

3.3.1 Contacts Database

The Contacts database (ContactsDB) is the master directory of all persons involved in or belonging to the LSST Project. All contacts may be "Active" or "Inactive" and are organized into categories and subcategories by assignment as a "Member," "Affiliate," or "Group Leader." Members actively participate in the programmatic, technical, or scientific work of the project. Affiliates are individuals who are not directly involved in LSST but have a legitimate reason for wishing to stay informed about project status and progress.

Anyone can view a contact's information, but only administrators can add new contacts, change contacts' active statuses, assign contacts to categories, or create/delete subcategories and roles. Administrators are those individuals responsible for the accuracy and currency of one or more database categories. The administrators are

- Project Manager,
- Subsystem Managers,
- IT Systems Administrator,
- Business Administrator,
- Document Specialist, and
- Administrative Assistant

On April 1 and October 1, the administrative assistant makes a global request to have the individuals listed in the database review and if necessary update their own contact information. The admin initiates this query through the web interface. One week later, he or she accepts the updates through the web interface. The same interface also may be used at other unscheduled intervals to request updates from select contacts meeting certain relevant criteria.

ContactsDB is a MySQL database residing on the LSST Linux web server. The primary table of all contacts (tblcontacts) contains the name, address, email address, phone numbers and other contact information for each person, as well as an 'Active' attribute, which can have the value of '1' = active or '0' = inactive. Association with one or more groups (tblcontactcategory* tables) is accomplished by assigning a person one or more of the 'Role' attributes *member*, *affiliate*, or *group leader*, with an 'Active' attribute ('1' or '0') to one or more subgroups (ContactCategoryCategoryID field in the tblcontactcategory* tables). Edits to contacts and memberships may be made through the password-protected phpMyAdmin browser interface (<https://www.lsstcorp.org/phpMyAdmin>) or the Contacts Home page on the project's intranet website where administrator login is needed.

DEFINITIONS OF CONTACTSDB SUBCATEGORIES

- **Project Adjunct:** a subcategory of Project Management created to include in the lsst-ProjectOnly Mailman list designated individuals who are not members of the subcategories comprising ProjectOnly. The list includes LSST's NSF and DOE program officers, the AURA President, and scientists engaged primarily at the project level.
- **Science Adjunct:** a subcategory of Science created to include in the lsst-ScienceOnly Mailman lists designated individuals who are not members of the subcategories comprising ScienceOnly. The list includes scientists primarily engaged at the project level.

3.3.2 Mailman List Serves

LSST also hosts a Mailman list server (listserv) that maintains membership to and e-mail addresses for e-mail distribution lists. Mailman treats each mail list as a unique and closed object, which means that except for a limited number of functions to update individual user information, changes to membership in one list do not affect the other lists. Except for one list named cameracontrol, all list names start with the prefix LSST-. Mailman list names are not case-sensitive.

E-mail may be sent to the appropriate list name appended with @lsstcorp.org.

New Mailman lists are created by the Mailman Administrator on request. All lists are closed, and new subscribers added through the web interface must be approved by the list owner. Although Mailman distinguishes between a list owner and a list moderator, in practice LSST typically leaves it to the owner

to do the moderating.

While Mailman lists can be either ad hoc or project-controlled, the LSSTPO prefers project-controlled lists. These lists are synchronized with corresponding ContactsDB subcategories, and group membership and contact information are controlled through the ContactsDB. LSST management creates a ContactsDB category or subcategory, creates a Mailman list in the listserv, and amends any scripts to synchronize the ContactsDB subcategory members and the Mailman list. The names of the Mailman list and the ContactsDB group should be the same.

DEFINITIONS OF IMPORTANT MAILMAN LISTS

The following aggregate mailing lists are generated by scripts from all ContactsDB records for “Active” “Members.” The definitions of all the project-controlled lists can be found in Appendix B.

- **LSST-ProjectOnly** contains individuals who are part of a programmatic or technical team
- **LSST-ProjectAndScience** is the union of ProjectOnly and ScienceOnly
- **LSST-ScienceOnly** contains every “Active” “Member” and “Active” “Affiliate” of a Science Collaboration team
- **LSST-World** includes everyone with Active status in a subcategory of the ContactsDB

3.4 Project Calendar

The LSST Project Calendar contains information about regularly scheduled meetings, project events, holidays, staff vacations, and team travel. It is a Google Calendar embedded on the project website’s Project Calendar page. The LSST Administrative Assistant maintains the Google Calendar. The project’s Google account is lsstteam@gmail.com; the password is 3.2gpix!.

OBTAINING CALENDAR INFORMATION

The administrative assistant obtains information for the calendar through attentiveness and regular, direct inquiries. Scheduled events can come to light in monthly Technical Progress Reports, on the Review Hub website, or from discussion and/or announcements at the Thursday afternoon management team telecom. Similarly, vacation and travel information may come from the Thursday meeting or subsystems’ Calcium calendars (<http://www.noao.edu/perl/Calcium>); however, on the first business day of each month, the administrative assistant sends an email to managers and all LSSTPO staff requesting travel and vacation dates that do not already appear on the project calendar.

UPDATING THE CALENDAR

To add events to the calendar, the admin logs into Google Calendar as lsstteam. Then he or she finds the appropriate calendar in the left hand sidebar, clicks the arrow to the right of the calendar name to reveal a drop down menu, and selects “Create event on this calendar.” The admin fills in the appropriate information and clicks “Save.”

To work around a Google Calendar design quirk, there are four calendars: LSST Team Travel, LSST Project Events, LSST Staff Vacations, and Project Office Holidays. Google Calendar allows only calendar administrators to see color-coding within a single calendar. In order to display a color-coded calendar on the website, the project established four separate calendars, each with a designated color: blue for

events, red for vacation, gray for travel, and green for holidays. The embedded calendar on the project website is an aggregate of these four calendars.

When adding an event to one of the four calendars, also copy the event to LSST PMO Aggregate, which contains the information from the other four calendars without color-coding. The aggregate calendar was created to provide the Project Manager with a single aggregate calendar for display in his/her Outlook calendar.

EMBEDDING THE CALENDAR

To obtain the code needed to embed the Google Calendar on the project website,

- Log in to Google Calendar as lsstteam
- Click the cog icon in the upper right corner of the page
- Select Settings from the drop down menu
- Click the Calendars link
- Click the LSST Project Events link
- Copy the code in the Embed This Calendar section

To embed the calendar

- Go to the LSST intranet
- Go to the Project Calendar page
- Select Edit
- Paste the code into the page body
- Delete the old code
- Save

3.5 Project News Blog

The LSSTPO uses the Project News blog to report news and events of broad interest to the distributed project team. Examples of past blog entries include the announcement of LSST's top ranking in the 2010 decadel survey and the appointment of the new LSST Director. The blog appears in a block at the top of the home page's content. The block displays the most recent blog entry.

Project team members assigned the Drupal role of Administrator can post blog entries.

3.6 Safety

The LSST intranet's Safety pages contain links to the LSST Safety Policy ([LPM-18](#)) and site-specific Safety Health and Environmental (SHE) plans for the project's partner institutions. Site administrators maintain the currency of this information as provided by the partner institutions.

3.7 Travel

All travel must be pre-approved by a manager. Requests for travel authorization are made through the AURA Reqless system, which is accessible through a link on the Travel page of the LSST intranet. Links to instructions for processing travel requests through Reqless can be found to the right of the Request Travel button. The page also contains links to policies and procedures, important information regarding

travel expense reimbursement, and travel programs.

The LSST Travel Policy linked on the page is [Document-10056](#).

3.8 Wikis

The project hosts wikis for use by groups within the project to communicate and work collaboratively. The individual groups are responsible for maintaining wiki content and managing membership. Access to the wikis requires LSST account credentials.

3.8.1 Science Collaboration Wiki

The Science Collaboration Wiki is the project's primary tool for communicating with Science Collaboration members. Science Collaborations are working groups of individuals interested in using LSST data for research in a particular science area. They are autonomous entities that work closely with the LSST project to make the science case and influence system requirements and specifications in order to ensure the LSST will achieve its science goals. The LSST communications group and the Science Collaboration members and chairs are responsible for updating wiki content.

The wiki can be accessed through the Wikis tab on the LSST intranet website's home page. Users log in with their LSST account credentials.

Because Science Collaboration members do not necessarily have a DocuShare account, documents in the archive must be extracted and posted explicitly on the Science Collaboration Wiki to be accessible to all Science Collaboration members.

3.9 DocuShare Document Archive

DocuShare is the trade name for the enterprise management software used by LSST to archive and manage project documents. The archive is a repository for all documents related to design and development, construction, integration, test, and operations of the LSST observatory system. The front page of the project intranet site displays a quick retrieve tool for simple DocuShare operations such as unloading a new version of and viewing or editing an object whose handle is known to the user. The complete DocuShare application is accessible through a link on the project intranet site.

Each document in the archive possesses a unique identifier called a handle. ***It is imperative that the author of the document include the handle on the cover page and in a header or footer.*** The style guide for official LSST documents not yet under change control is [Document-11920](#); the change controlled document style guide is [Document-9224](#).

DocuShare is organized into collections corresponding to the project's "Work Breakdown Structure" (WBS) (see [LPM-43](#)). Those collections are subdivided by function and document type. In general, users can read public documents, upload new documents to the archive, and update documents they own. Documents under change control have been restricted as read only to all but members of the Controlled Documents Membership group. Not all documents are visible to all users.

The Document Specialist is responsible for maintenance of the archive.

See the “LSST Document Management Plan” ([LPM-51](#)) for more detailed information regarding documentation standards and access permissions.

Note: *DocuShare is hosted on a different server than the rest of the Project’s web-based tools. Users already logged into the intranet will be asked to log in to DocuShare and vice versa.*

3.10 Change Control

The Change Control Board (CCB) acts as an advisory body to the Project Manager, recommending acceptance or rejection of proposed changes to the project’s cost, schedule, and technical baselines. The Project Manager approves or rejects changes within her/his decision authority level and promotes to higher levels any change outside her/his authority. See the “LSST Change Control Process” ([LPM-19](#)) for further details.

The members of the CCB are:

- Systems Engineering Manager (Chair)
- Project Scientist
- Systems Scientist
- Subsystem Managers
- Subsystem Scientists
- Subsystem Systems Engineers

Processing of Change Requests (LCRs) is managed through a workflow on the password-protected Change Control Board website (<https://www.lsstcorp.org/groups/ccb/>), which is also accessible through a link on the intranet home page. The workflow tracks status, records comments, and notifies users of required actions. The CCB Chair is responsible for ensuring that the workflow progresses to the appropriate conclusion in a timely manner. Each change in workflow status triggers email notifications that alert relevant parties to their required actions. At the workflow’s conclusion, the Document Specialist saves the LCR’s workflow history, which includes the initial submission, comments, and CCB member’s votes, and uploads a PDF to the appropriate LCR-specific collection in DocuShare.

SUBMITTING A CHANGE REQUEST

Anyone with LSST account credentials can submit a change request. To submit a request click the “Submit Change Request” link on the left hand sidebar, fill out the form, and save. The person who submitted the request, the CCB Chair, and the website administrator can edit the original submission. To edit the submission, click on the Change Request title, which redirects to the LCR’s page, click the “Edit” tab, make the relevant changes, and save. Once a request has been submitted, the workflow status updates to “Proposed,” and the CCB Chair receives an email notification.

ADVANCING THE WORKFLOW

The CCB Chair may request additional information, reject the proposal without further consideration, or assign an LCR number and advance the workflow for impact analysis. To advance the LCR to the next workflow state, the CCB Chair clicks the “Workflow” tab on the request’s web page, selects the next appropriate status, enters relevant comments, and clicks the “Update workflow” button.

RECORDING COMMENTS AND VOTES

At the “Studied” phase, managers and scientific and technical staff should record statements of support, objections, or concerns through the “Add new comment” field at the bottom of the LCR’s web page. However, formal support documents such as impact analyses or delta versions of documents affected by the proposed change must be uploaded to the appropriate LCR-specific collection in DocuShare.

Following impact analysis and any adjustments to the LCR resulting from same, the CCB Chair advances the workflow to “Pending” status* and adds the LCR to an upcoming CCB meeting agenda. CCB members receive an email notification that the LCR is ready for their consideration. To record their vote, CCB members go to the LCR’s web page, click the “Add vote” link, fill out the form, and save.

**Note: because some change requests do not require CCB action, the CCB Chair may, at anytime after assignment of the LCR number, advance the workflow directly to “Approval Pending.”*

RESOLUTION

If the CCB recommends approval of the LCR, the CCB Chair advances the workflow status to “Approval Pending.” The Project Manager receives an email notification. The LCR’s lifecycle ends when the Project Manager advances the workflow status to “Approved” or “Rejected.”

3.11 JIRA (Issue Tracking)

LSST uses JIRA as its project-wide issue tracking system. It is a tool for consolidated management of issues to be studied and resolved that arise during the project’s numerous and distributed meetings. Users record an issue within the LSST Issue Tracker (LIT) project, and team members discuss the issue through comments until resolution is achieved. In addition to managing issues, JIRA provides a history of previously discussed issues and their resolutions that can be referenced when future related issues arise.

The LIT project is divided into components representing LSST subsystems and operational divisions. Issues are assigned priorities ranging from “Blocker” (an issue that is so significant that it takes precedence over all others) to “Trivial.” For information regarding how the tool has been customized for LSST and a description of how to use it see the [JIRA at LSST User’s Guide](#) on the Confluence dashboard.

The program is hosted on the LSST server; the URL is <http://jira.lsstcorp.org/>. It can also be accessed from the Project Tools page of the LSST intranet website. To acquire a user account, contact the IT Systems Administrator.

3.12 Confluence

Confluence is the project-wide wiki, which used in conjunction with JIRA, provides a consolidated location for meeting information, calendaring, collaborative discussion, and other information sharing. Subsystems and organizational divisions can create their own Global Spaces within Confluence for collaboration specifically relevant to them.

The program is hosted on the LSST server; the URL is <http://confluence.lsstcorp.org/>. It can also be

accessed from the Project Tools page of the LSST intranet website. To acquire a user account, contact the IT Systems Administrator.

3.13 Review Hub

The Review Hub (<https://www.lsstcorp.org/reviews/hub/>) serves as a clearinghouse for information about external reviews, meetings, and workshops planned across all elements of the LSST Project. The site is linked on the primary navigation menu of the LSST intranet home page. See “Review Hub Procedures” ([LPM-99](#)) for detailed information, including technical details regarding how Drupal displays specific content on particular pages.

The Review Hub site displays **Upcoming Reviews**, **Past Reviews**, **Meetings & Workshops**, **Recurring Meetings**, and a **Reviewers List**. There is also a form for reporting a scheduled review or meeting.

Upcoming Reviews display in two forms: scheduled reviews and planned reviews.

- **Scheduled Reviews** are upcoming external reviews that have been approved by Project Management, have an active review website, and have an identified review committee.
- **Planned Reviews** are external reviews planned for the upcoming six months in the LSST PMCS Final Design Phase plan’s level 2 milestones.

The **Past Reviews** page displays external reviews that have already occurred.

The **Meetings & Workshops** page displays information about both upcoming and past LSST-hosted meetings and workshops.

The **Recurring Meetings** page displays regularly scheduled, recurring meetings throughout the project. The table indicates the meeting interval and whether it is a telecom or face-to-face.

The **Reviewers List** page displays the names, institutional affiliations, and review names for individuals who have served as committee members on a review of the LSST project or its constituent parts.

REVIEW REPORTING PROCEDURE

- 1) After the Project Manager has approved the review plan (See [LSE-159](#), “Review Definitions, Guidelines, and Procedures” for further detail about review approval procedures), the decision-making authority notifies the Document Specialist and the LSST Web Designer that a review website is needed. They will need
 - a. Review title
 - b. Start and end dates
 - c. Review location (including room number if available)
 - d. Charge to the reviewers
 - e. Draft agenda
 - f. List of reviewers
 - g. Relevant support documents
- 2) After the review website has been created, the Document Specialist enters the review information through the Report Scheduled Meeting tab.

- a. Enter the website URL in the “Body” field; change the “Text format” to “Full HTML” to activate the WYSIWYG; enter the URL and create a link.
 - b. For the “Review or Workshop?” field, select “Review.”
 - 3) Save
 - 4) A new row will be added to the Scheduled Reviews table on the Upcoming Reviews page.
- FYI – to edit the review, click the link under Review Title and edit the review node.*

MEETING REPORTING PROCEDURE (One-Time and Recurring)

- 1) The meeting is scheduled.
- 2) The meeting organizer notifies the Document Specialist of the meeting details:
 - a. Meeting Title
 - b. Start and end dates
 - c. Meeting location
 - d. Website URL, if there is one
- 3) The Document Specialist enters the meeting information through the Report Scheduled Meeting tab.
 - a. Enter the website URL in the “Body” field; change the “Text format” to “Full HTML” to activate the WYSIWYG; enter the URL and create a link.
 - b. For One-Time meetings select “Meeting or Workshop” under the “Review or Workshop?” field.
- 4) Save
- 5) A new row will be added to the Upcoming Meetings and Workshops block on the Meetings & Workshops page.

FYI – to edit the review, click the link under Meeting Title and edit the review node

3.14 Speakers Bureau

The LSSTPO uses the Speakers Bureau website (<https://www.lsstcorp.org/speakersbureau/all>) to pre-screen and approve participation of LSST project personnel at externally hosted meetings before such meetings occur. The site also provides a mechanism for the Speakers Bureau to accept speaker requests, coordinate speakers, and maintain a record of requests received and talks given. Project personnel should use the site’s **Request Form** to report their intended participation in a meeting even if they are requesting neither a speaker nor LSST funding. Similarly, project personnel approached by a meeting organizer requesting an LSST speaker should use the **Request Form** to report the request.

See the “Speakers Bureau Website Guide” ([LPM-100](#)) for detailed procedures and technical information regarding how the Drupal elements work.

The **Request Form** creates content in one of four custom Drupal content types that are then used to generate views within blocks on the Possible Meetings and Presentations pages.

The **Possible Meetings** page contains a summary table of all upcoming meetings reported through the

Request Form. A complete list including past meetings can be accessed via the “All Requests” link.

The **Project Slides** page provides resources for use by LSST speakers in their presentations. The page has two sections: “Stock Information Slides” and “Presentation Templates.” The stock slides section contains publically available LSST images and information. The presentation templates section offers several choices of PowerPoint title and content slides with LSST images and branding. To dynamically update this content when document revisions are made, the links on the page pull the slides and templates from the preferred version of the relevant DocuShare handle. The DocuShare preferred versions represent the most current approved version of the documents.

The **Presentations** page contains a table with links to presentations given by LSST speakers at meetings that have already occurred.

MAKING THE REQUEST

Any use of LSST funds MUST be pre-approved by the Project Manager and/or Director.

When LSST project staff or science collaboration members receive a request for LSST presence at an externally hosted meeting, he or she enters a Request Form via the link on the site’s main navigation menu. There are four potential branches of the form depending on whether a speaker needs to be identified and whether LSST funds are being requested.

1. NO speaker requested and YES LSST funding requested
 - a. In this situation, the requester is reporting his or her intention to attend a meeting, so no speaker is being requested, but he or she *is* requesting LSST funding for all or part of the attendance cost. After the request has been saved, an email notification will be sent to the Director, Project Manager, and the Document Specialist and his/her backup.
 - b. The form field “Dividend of Cost” refers to the percentage of the estimated cost to be funded by LSST.
2. NO speaker requested and NO LSST funding requested
 - a. In this situation, the requester is reporting his or her intention to attend a meeting, so no speaker is being requested, and he or she has *no need* for LSST funding. After the request has been saved, an email notification will be sent to Document Specialist and his/her backup.
3. YES speaker requested and YES LSST funding requested
 - a. In this situation, the requester is asking the Speakers Bureau to identify an LSST speaker to present at a meeting **and** he or she *is* requesting LSST funding for all or part of the attendance cost. After the request has been saved, an email notification will be sent to the Director, Project Manager, the Speakers Bureau listserv, and the Document Specialist and his/her backup.
 - b. The form field “Dividend of Cost” refers to the percentage of the estimated cost to be funded by LSST.
4. YES speaker requested and NO LSST funding requested
 - a. In this situation, the requester is asking the Speakers Bureau to identify an LSST speaker

to present at a meeting **but** he or she has **no need** for LSST funding. After the request has been saved, an email notification will be sent to the Speakers Bureau listserv and the Document Specialist and his/her backup.

- b. This path contains the “Suggested LSST Speaker(s)” field, in which the requester can identify potential speakers as a springboard for Speakers Bureau discussion.

APPROVAL PROCEDURES

At the Thursday afternoon management team meeting, the Document Specialist will inform the Project Manager and Director of any pending requests. Following discussion and a decision as to whether or not LSST will participate in the meeting and whether or not LSST will fund any portion of that participation, the Document Specialist will assign approval status to the meeting request.

- Click the name of the appropriate meeting in the table on the Possible Meetings page
- Click the “Edit” tab
- Select the appropriate status from the “Approved” drop down menu
- Save

Via email, the Document Specialist will notify the requester of approval status.

The responsibility for notifying the meeting organizer of the project’s decision regarding participation in the meeting lies with the individual who entered the request.

EDITING REQUESTS

After the initial request has been saved, the requester can edit his or her own requests by clicking the name of the appropriate meeting in the table on the **Possible Meetings** page.

- Click the “Edit” tab
- Make the appropriate change
- Save

However, if the requestor needs to change the answer to “Are you requesting a speaker?” and/or “Will this be LSST funded?” a new request must be entered instead and the old, no longer accurate request deleted.

AFTER THE MEETING

After the meeting has occurred, the LSST attendee must upload his or her presentation to the site **and** complete the Interactions report (see the section below). The meeting and a link to the uploaded presentation will appear in a view on the **Presentations** page.

- Click the name of the appropriate meeting in the table on the Possible Meetings page
- Click the “Edit” tab
- Scroll to the bottom of the page
- Click the “Please Fill Out After the Meeting Has Occurred” link
- Enter “Speakers” names
- Upload Presentation

- Save

3.15 Interactions

To ensure compliance with NSF/DOE Joint Oversight Group (JOG) interactions reporting requirements, all team members (i.e. anyone who receives LSST funding) must summarize any applicable interaction using the web form accessible through the “Interactions” link on the intranet home page. This applies to both written and oral communications. The JOG requires that they be informed of LSST publications, presentations at public meetings, or interactions with government officials. Any information distributed by the Project must be accurate and appropriate. In other words, team members must reference the same technical scope, budget, and schedule, and they must not purport to speak for the funding agencies.

The form and a reporting function are web pages written in php and hosted on the LSST server.

3.16 Recurring Meetings

The LSSTPO communicates regularly through teleconferences and face-to-face meetings on both a recurring and intermittent basis. A list of recurring meetings can be found through a link in the “Reviews” menu on the intranet home page (<https://www.lsstcorp.org/reviews/hub/node/44>).

American Teleconnect conference call phone lines, participant codes, and instructions can be found in [Document-3345](#).

3.16.1 All Hands Meetings

Bi-annually, the LSSTPO hosts a week-long conference designed to bring together members of the Science Collaborations, advisory boards, and engineers and scientists building the observatory system to share ideas and maximize the broader impact of LSST.

The LSSTPO decides on the AHM location, typically Tucson but occasionally the home city of a partner institution such as SLAC. The AHM organizing committee selects a venue and negotiates room rates, AV charges, meals, etc. within the allowable parameters of LSST policies and government regulations. The organizing committee also crafts the conference agenda according to the project’s current needs and priorities.

Registration, meeting logistics, and communication of other AHM-specific information are conducted through a dedicated website (e.g. <https://www.lsstcorp.org/ahm2012/>).

3.16.2 Joint Technical Meetings

Bi-annually, the LSSTPO hosts a week-long workshop designed to bring together the distributed team of managers, scientists, and engineers who contribute to the programmatic, design, and technical work of the LSST Project.

The LSSTPO decides on the meeting location, typically Tucson but occasionally the home city of a partner institution such as SLAC. The organizing committee selects a venue and negotiates room rates, AV charges, meals, etc. within the allowable parameters of LSST policies and government regulations.

The organizing committee also crafts the workshop agenda according to the project's current needs and priorities.

Registration, meeting logistics, and communication of other workshop-specific information are conducted through a dedicated website (e.g. <https://lsstcorp.org/meetings/ptm/>).

3.16.3 Splinter Meetings at AAS

LSST frequently hosts a Splinter Meeting at the annual winter meeting of the American Astronomical Society. These meetings take advantage of the coincident attendance by project staff and Science Collaboration members to update the community on project status and/or discuss specific topics such as DM data challenge release characteristics or planning among Science Collaborations.

Splinter meetings can be scheduled before, during, or after AAS conference days. For details regarding deadlines and how to schedule a splinter meeting see <http://aas.org/meetings/content-aas-meetings>.

The meeting organizer crafts the agenda, arranges the participation of necessary speakers, and communicates with meeting participants. If the organizer chooses, the LSSTPO can provide a dedicated website (e.g. <https://lsstweb.lsstcorp.org/meetings/splinter2013/>); contact the LSST Web Designer or Document Specialist to begin this process.

3.16.4 Thursday Management Meeting and Meeting Minutes

For one hour each Thursday beginning at 1 pm Pacific, LSST managers, key scientific staff, and LSSTPO team members meet in person and via telecom to report news, exchange information, and bring issues to the attention of the group. The Tucson group meets in Steward Observatory room N505A. The teleconference line is 1-800-330-1200; participant code 6113397.

The meeting attendees are

- Director
- Deputy Director
- Chief Scientist
- Project Manager
- Project Scientist
- Systems Engineering Team
- Systems Scientist
- Subsystem Managers
- Subsystem Scientists
- Simulations Team Leads
- Business Administrator
- Document Specialist
- Administrative Assistant

The administrative assistant takes minutes and uploads them to DocuShare [Collection-3074](#). After the minutes have been approved by the Project Manager, the admin posts them to the intranet's Project Tools page.

4 External Project Communications

4.1 Public Website (www.lsst.org)

LSST uses its public website, www.lsst.org, to communicate with the public and interested scientists. As the public face of LSST, the website's content is intended for public consumption; it should not contain

competition sensitive material. The website contains a project overview, the science objectives, the system design, press releases, media coverage, image galleries, E-News, and information on how to participate.

The LSSTPO designates content editors authorized to make changes to website content. These individuals have been assigned content editor roles in Drupal that allow them to edit the pages for which they are responsible. Some of the content, such as the “LSSTC Institutional Members and Representative” and “Science Collaboration Chairs” lists on the “Team” page, and the “Member Organizations” list on the “LSST Contributors” page, is generated dynamically through database views of the Contacts database.

4.2 E-News

LSST E-News reports news, programmatic and technical updates, and other notable items to project personnel, science collaboration members, and the interested public. E-News publishes quarterly during the first week of the appropriate month. It both aggregates items posted to the “News” page or the intranet blog during the quarter and presents articles written specifically for E-News. Publication triggers an email notification to subscribers and updates the highlights section on the LSST website. The LSST Communications team identifies the news items to report, writes and edits the articles, and posts the completed E-News to the lsst.org. The Communications Manager is Editor-in-Chief. All E-News content must be vetted by the Project Manager, Director, and the project’s NSF and DOE program officers prior to publication.

Each issue of E-News has its own collection in DocuShare. Articles and any accompanying graphics are uploaded to the appropriate sub-collection of [Collection-1247](#). If an article is edited during any part of the publication process, including online staging and PDF creation (see below), a new version must be uploaded to the appropriate DocuShare handle.

STAGING THE ONLINE (HTML) VERSION

Via email, the Editor-in-Chief notifies Mark Newhouse of NOAO that the articles are ready for staging; the email includes a link to the appropriate DocuShare collection.

- Update the E-News html template file to include the correct date and version numbers and to make any other necessary updates such as copyright date, list of member institutions, or E-News staff members
- Download all files, including images, from the appropriate DocuShare collection
- Convert images to both "large" (~800-1000px on longest side) and "thumbnail" (200px wide) sizes. Convert article text to html by hand. This is done because the automatic Word conversion process adds an unacceptable amount of superfluous code. Pay particular attention to encoding special characters, bold, italics, superscripts, etc.
- Place articles and image into templates and upload to server. Naming follows the convention yearmonth.html (for example <http://www.lsst.org/News/enews/201304.html> for April 2013)
- Check articles on the server and make any adjustments

- Create email versions in html and plain text. Log into the emailer form that combines those into a single multipart mime email. Modify those as necessary. Make sure all links work
- Send test emails to Editor-in-Chief and others as necessary for quality check
- When publication approval received, send email to the LSST E-News email list
- Approve the email, which sends it to the entire list

STAGING THE PDF VERSION

The LSST Graphic Designer creates the PDF version after the online version has been staged.

- Download articles and images from the appropriate DocuShare collection
- Layout the issue in Adobe Illustrator
- Try to make the issue an even number of pages for easy printing
- Notify the Editor-in-Chief that the PDF is ready for approval
- After approval received, upload the PDF to the same folder containing the html file for the online version. Use the same naming convention, e.g. 201304.pdf for April 2013
- Add a link to the E-News web page

SPANISH LANGUAGE EDITION

David Gonzalez Huerta of LBT has volunteered to translate E-News articles into Chilean Spanish. Translation occurs after publication of the English version.

- Document Specialist downloads the articles from DocuShare and emails them to David as attachments
- David returns the translated articles via email
- Document Specialist creates a Spanish Language sub-collection within the relevant E-News edition collection
- Document Specialist notifies Mark Newhouse and the LSST Graphic Designer that the Spanish version is ready for staging
- Mark and Emily stage as described above

4.3 Press Releases and Press Packets

4.3.1 Press Releases

No formal process exists for deciding to issue a press release; the process is responsive to specific project needs, events, or achievements evaluated on a case-by-case basis. The decision to issue a press release on a particular topic derives from a consensus among the Director, Project Manager, other appropriate managers, and project stake-holders.

The LSST Public Information Officer writes the press release; the content is vetted by relevant technical staff and approved by the Director and Project Manager. Before issuance, the appropriate NSF and DOE Program Officers must be informed of the impending release. Press releases must include a

standardized funding acknowledgement ([Document-3607](#)).

The complete press release procedure can be found in [Document-3604](#).

4.3.2 Press Packets

For media requests, congressional visits, or other relevant interactions, the LSSTPO presents reference materials, prior press coverage, and swag collected in an LSST branded pocket folder. See [Document-2616](#) for the complete list of packet contents.

4.4 American Astronomical Society (AAS) Meetings

The American Astronomical Society (AAS) is the primary professional organization for astronomers. AAS holds semi-annual meetings in January and June; upcoming locations and meeting details can be found at <http://www.aas.org>. A packet with deadlines and logistical instructions should be printed from the AAS website to be used as reference throughout planning and organization for LSST participation.

LSST participates in the winter meeting with an exhibit, poster session, Splinter Meeting (for LSST affiliated attendees), and Special Session (for non-LSST attendees). Frequently, press releases and highlights from the previous year's activities are distributed. Occasionally, special guests such as Charles Simonyi are hosted.

The LSSTPO coordinates the LSST presence at each AAS meeting. Each meeting has its own DocuShare collection within [Collection-2666](#) that serves both as an archive and a resource for planning documents and document templates. When creating the new collection for the current meeting follow the existing naming convention and use the previous meeting's collection as a guide for which content to include. Communication with participants and poster authors is conducted via email and through the meeting's page on the Science Collaboration wiki.

EXHIBIT

In collaboration with the EPO manager, the LSST Graphic Designer creates a design for the current exhibit frame - an 8' x 8' Curved HopUp with end caps. The exhibit graphic is printed onto fabric stretched over the frame and secured with velcro. The final graphic layout measures 83" wide by 89.125" tall, requires a 2" bleed, and needs to be CMYK and 100-120 ppi. After the design has been approved by Senior Management, the Graphic Designer obtains a purchase order from Reqless then uploads the design file to Great Projections' FTP site. The file size can be up to 2 gigabytes. Once uploaded, the graphic can be produced in as little as three days.

`http://67.212.194.166/Login`

Username: gpiftp

Password: tucson

*See attachment GPI Server Info & Art Guidelines 12-2009.pdf

In addition to the large exhibit graphic, the Graphic Designer also creates posters, informational handouts, and tabletop displays for the booth. Posters and smaller graphics are printed and mounted on foam core. Common topics include a current list of institutional members, a LSST Participants Map, a top ten list of project highlights, and a few key science posters. Figure 3-1 provides an example of the exhibit

booth layout.

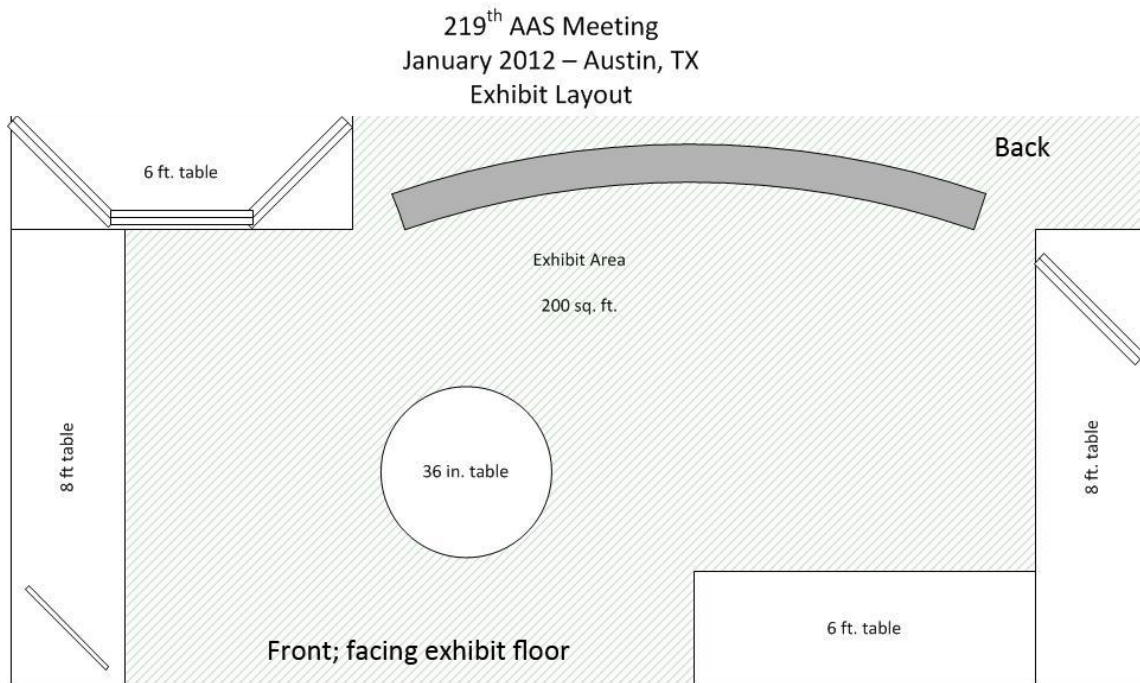


Figure 4-1: Sample Exhibit Booth Layout

SWAG

Exhibit booth giveaways include items like bookmarks, pedometers, luggage tags, Science Book CDs, or other creative and fun ideas. These items are also designed and purchased by the Graphic Designer through Reqless.

POSTER SESSION

A typical LSST poster session averages 25 posters. In order for a poster to be included in the LSST session, its content must be approved by the LSSTPO, and it must use the single approved design. Dimension constraints and other design requirements can be found on the AAS website.

After consultation with the Director and Project Manager regarding the project's message, if any, for the session, the EPO manager coordinates poster production. He or she assembles the list of authors and titles, approves the abstracts before submission, verifies the abstract submissions, and communicates with the authors throughout the poster review and approval process. The primary communication tool is a Science Collaboration wiki page that provides meeting information, the poster production timeline including deadlines, a place to upload abstracts, the poster template, and a poster production page.

Designed by the Graphic Designer and approved by senior management, the poster template is generated in both PowerPoint and Keynote. The template demonstrates the layout of the final poster with obvious boundaries and includes the following information and directions

- Font size requirements
- Recommendations for layout/background color
- Links to information on the AAS website
- Where to upload the draft poster when ready
- The naming convention requirements
- The procedure to come
- Deadlines/important dates

Final approval of poster content is made by the LSSTC Publications Board (see “LSST Publication Policy” [LPM-53](#)).

Once a poster is approved, the Graphic Designer downloads it, replaces the background with the final version, checks for conversion errors, and replaces any bad graphics (replace out-of-date, low resolution, or confusing). The poster is then “printed” to PDF, the fail safe way to export from Powerpoint.

- Confirm the document is the correct size
- Go to File > Page Setup >
- Correct the slide size if needed
- Click “Options”
- Select a paper size. If the correct size is unavailable, create one by selecting “Manage Custom Sizes” Click “OK” then go to File > Print
- Confirm that the poster fits on the page in the document preview of the document
- Choose “Save PDF”

Keynote posters require copying and pasting the entire poster into Photoshop without the background, which can get messy and leaves room for error. These posters take more time, careful attention and a little imagination. Luckily, there are usually very few Keynote posters.

The PDFs are uploaded to the wiki page to allow the authors to look for last minute errors. Needed edits are communicated via email with the Graphic Designer making the necessary changes. After all posters are approved, the Graphic Designer prints them, orders them by poster number, and packs them for shipping (See the AAS packet for shipping logistics and deadlines).

4.5 Reports to Stakeholders

4.5.1 Monthly Technical Progress Report (TPR)

Each month, the LSSTPO reports project status and progress through a Technical Progress Report (TPR). As a standard feature of the information packet presented at the monthly LSSTC Board of Directors meeting held the first Thursday of each month, the TPR must be completed one week prior to the meeting. See Figure 3-2 below for an example of the reporting due dates. The TPR reports on the previous month; i.e., the TPR presented at the May Board meeting would report on April’s activities.

The TPR has a section dedicated to each of the Project’s top-level WBS elements: Project Management, Systems Engineering, Telescope and Site, Camera, Data Management, and EPO. Each subsystem

manager reports to the Project Manager with his or her team's technical progress, budget status, other noteworthy activities, and near-term plans. The Project Manager, with the help of the Document Specialist, compiles the subsystem inputs into a coherent report.

PROCESS

Subsystem input is due two Fridays prior to the monthly Board meeting.

- 1) On the first of the month, the PMCS Specialist produces a PMCS progress report for each subsystem plan.
 - 2) The Business Administrator creates a financial status spreadsheet to be filled in by each subsystem manager.
 - 3) An email reminder with the due date, PMCS progress report, and financial status spreadsheets is sent two Mondays prior to the Board meeting. The recipients are
 - Director
 - Deputy Director
 - Project Manager
 - Chief Scientist
 - Project Scientist
 - Subsystem Managers
 - Telescope & Site Admin
 - Mark Arndt¹
 - ImSim lead²
 - OpSim lead²
 - Calibration lead²
 - LSSTC Board Secretary
- ¹Mark has been delegated the reporting responsibility for the Camera team.
²Simulations and calibration sent input to the Systems Engineering Manager.
- 4) An email reminder is sent to the subsystem managers on the Thursday before the due date.
 - 5) On the Monday following the due date the Document Specialist
 - Formats and edits subsystem inputs
 - Uploads the Report to the appropriated sub-collection of DocuShare [Collection-150](#) (Progress Reports – Monthly, Quarterly, Annual, and Final)
 - Notifies the Project Manager that the report is report his or her input and edits
 - 6) On the Thursday before the Board meeting
 - Project Manager uploads new version to DocuShare
 - Document Specialist proofreads and uploads a new version if necessary
 - Document Specialist notifies the Board secretary that the TPR is complete

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SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15 1 st Reminder	16	17	18 2 nd Reminder	19 Subsystem input due date	20
21	22	23	24	25 TPR Complete	26	27
28	28	30	31	1 Board Meeting	2	3

Figure 4-2: TPR Schedule Example

4.5.2 Reports to NSF

The NSF cooperative agreement requires the project to submit Quarterly and Annual reports through the life of the award and a Final Project and Project Outcomes Report at the conclusion of the grant. The reports are submitted by AURA through Research.gov. Quarterly reports must be submitted within 30 days of each quarter's end. Annual reports must be submitted prior to the end of each award year. The Final Report and the Project Outcomes Report must be submitted within 90 days following expiration of the award. NSF has granted LSST permission to submit only the Annual Report in lieu of a fourth quarter report. The Project Manager, aided by the Document Specialist, compiles the reports.

The current NSF award began October 1, 2012; the reporting due dates are

- Quarter 1, October through December, due January 31;
- Quarter 2, January through March, due April 30;
- Quarter 3, April through June, due July 31;
- Annual Report in lieu of Quarter 4, July through September, due September 30; and
- Final Project Report, October 2012 through September 2015, due December 31.

Also see the Reporting Calendar for CSA AST-1227061 ([Document-14580](#)).

QUARTERLY REPORT

The **Quarterly Report** must include, but is not limited to, the following

1. A summary of work accomplished during the reporting period including major scientific and technical accomplishments; an assessment of current status against scheduled status; a review of current or anticipated problem areas and corrective actions; and a status of actions affecting Awardee/NSF responsibilities;
2. Management information such as changes to personnel, financial status reports or other information including actual or anticipated over-runs or under-runs, and any other action requiring NSF or other Federal Agency notification; and
3. A description of all change control actions for key milestones or contingency usage and changes in the project milestones that are identified in the Project Plan. Cost, schedule, and performance goals shall include milestones for completion of project tasks in accordance with the LSST Project Plan

To compile the Quarterly

- Merge the monthly TPRs from the appropriate three months into a single document
- Edit the merged document, synthesizing recurring items into a single coherent narrative and deleting items not relevant to the quarterly reports purposes
- Upload the draft to the appropriate sub-collection of DocuShare [Collection-150](#)
- Notify the LSST Business Administrator the report is ready for the quarterly financial statements
- After financials have been added, notify the Project Manager that the report is ready for his or her review
- After Project Manager review, upload an editable document and a PDF version to the DocuShare handle
- Notify AURA that the report is ready for Research.gob submission

ANNUAL REPORT

The **Annual Report** must include, but is not limited to, the following

1. A summary of overall progress, including results to date, and a comparison of actual accomplishments with proposed goals for the period; an indication of any current problems or favorable or unusual developments; any revisions to the Project Plan for the succeeding funding year; and any other pertinent information. Financial and schedule status information similar to that given in the Quarterly Report will be included in the Annual Report;
2. A listing of any publications and reports produced by LSST Project personnel supported by this award; and
3. A budget for the next funding year on NSF Form 1030 including any revised sub-award budgets for the next funding year.

To compile the Annual

- Follow the Compiling Quarterly Reports process with the following exceptions
- Use the three prior quarterly reports instead of TPRs
- Include the Publications List in the report document. The list can be obtained either from the Publications Board website when it goes live or from the appropriate sub-collection of DocuShare [Collection-114](#).
- Enter the publications into the appropriate Research.gov function

FINAL REPORT

The Final Project Report follows the example of an Annual Report. To compile the Final, follow the Annual Report process.

PROJECT OUTCOMES REPORT

The Project Outcomes Report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. Because the report will be posted on the NSF website, grantees are to ensure that the report does not contain any confidential, proprietary business information; unpublished conclusions or data that might compromise the ability to publish results in the research literature; or invention disclosures that might adversely affect the patent rights or those of the organization, in a subject invention under the award. Responses are not to contain any private personally identifiable information such as home contact information, individual demographic data or individually identifiable information collected from human research participants.

The report must include, but is not limited to, the following

- A description of project outcomes or findings that addresses the intellectual merit and broader impacts of the work as defined in the NSF merit review criteria. This description should be a brief (generally, two to three paragraphs) summary of the project's results that is written for the lay reader. Principal Investigators are strongly encouraged to avoid use of jargon, terms of art, or acronyms.
- A list of products, other than those publications previously reported through Research.gov (which will be included automatically), that have resulted from the award. Examples of other products include collections, data sets, software, and education materials.

4.5.3 Annual Report to AURA

The LSST Director submits an annual report to AURA each March; it is due one month prior to the AURA annual meeting in April. The report, sourced and repackaged from previously delivered presentations and NSF reports, summarizes the LSST Project's programmatic and technical progress for the period April 20XX to April 20XY. It is delivered electronically to the AURA Director of Corporate Operations, who posts it on the AURA website. Past examples of AURA Annual Reports can be found in [Collection-3087](#).

4.6 Publications

All formal LSST publications must be approved by the LSST Publications Board before release. See the "Publications Policy" ([LPM-53](#)) for complete details. Such publications must contain a funding acknowledgement statement, a version of which, appropriate to the publication's circumstances, can be

chosen from [Document-3607](#). Also, publications should be consistent with the LSST Publications Style Manual ([Document-13016](#)); however, for cases in which guidelines for a specific journal contradict the information presented in this style manual, the journal's guidelines take precedence.

Approved publications should be uploaded to the appropriate sub-collection of [Collection-114](#).

When the Publications Board website goes live, the review workflow will keep a real time record of LSST approved publications. On the first business day of each quarter, the Document Specialist will export the list of approved publications and post it to the appropriate sub-collection of [Collection-114](#). Until then, the Document Specialist will maintain an ongoing list of approved publications based on the email communication of the Publications Board listserv (to which he or she is a member) and a supplemental search of the Harvard University abstract service (http://adsabs.harvard.edu/abstract_service.html). The list will be posted to the appropriate sub-collection of [Collection-114](#).

4.6.1 Publications Board Website

The LSST Publications Board website (<https://lsstweb.lsstcorp.org/lsstpub/public/>) contains a workflow for managing and recording the results of LSST paper reviews. The Pub Board Chair is responsible for ensuring that the workflow progresses to the appropriate conclusion in a timely manner. Each change in workflow status triggers email notifications that alert relevant parties to their required actions. At the workflow's conclusion, the Document Specialist uploads PDFs of the paper's workflow history and the final approved version of the paper to the appropriate sub-collection of [Collection-114](#).

See [Document-14474](#) for a review process workflow diagram.

SUBMITTING A PAPER FOR REVIEW

Anyone with a LSST account credentials can submit a paper for review. To submit a paper, click the "Submit a Paper for Review" link on the left hand sidebar, fill out the form, upload a copy of the manuscript, and save. ***Each paper must have a single individual identified as the corresponding author for the paper's review. If a paper has multiple authors, they must designate one person as the workflow's point of contact.***

The corresponding author, the Pub Board Chair, and the website administrator can edit the original submission. To edit the submission, click on the paper title, which redirects to the paper's web page, click the "Edit" tab, make the relevant changes, and save. Once a paper has been submitted, the workflow status updates to "Pending," and the Pub Board Chair receives an email notification.

ADVANCING THE WORKFLOW

To advance the paper to the next workflow state, the Pub Board Chair clicks the "Workflow" tab on the paper's web page, selects the next appropriate status, enters relevant comments, and clicks the "Update workflow" button. If the Pub Board Chair declines to review the paper, he or she concludes the workflow by selecting the "Declined to Review" status. If the Chair accepts the paper for review, he or she will select reviewers in the workflow, which will notify them by email that they have been assigned to a paper "Under Review."

RECORDING COMMENTS AND UPLOADING DOCUMENTS

During the “Under Review” phase, the reviewers and the corresponding author should use the workflow to record comments and to upload iterations of the manuscript. Authors and reviewers do so by adding a new comment or clicking the “Respond to Feedback” or “upload a Paper Revision” link on the paper’s web page. Each document upload triggers an email notification to the relevant party.

RESOLUTION

If the reviewers decline to accept the paper, the workflow concludes with the status “Review Complete.” If the reviewers recommend the paper’s acceptance, it is posted to give the broader LSST collaboration an opportunity to comment. After incorporation of pertinent suggestions from the collaboration, the Pub Board Chair closes the review by advancing the workflow to the “Paper Accepted” status. The corresponding author receives an email notification, and the Document Specialist uploads the final approved manuscript to the appropriate sub-collection of Collection-114.

4.7 Social Media

The communications group, led by the LSST Public Information Officer, is responsible for using social media tools to communicate the Project’s interests and news. Items posted must be vetted by the Director, Project Manager, and agencies, if appropriated.

- Twitter handle is @LSST.
- Facebook page is Large Synoptic Telescope (LSST).
- Linked In page is

LSST owns the domain ls.st and uses it as a URL shortener for social media applications such as Twitter; <https://ls.st/shorten/> requires LSST account credentials for access.

4.8 Image Requests

The LSST public website directs visitors to make LSST image use requests by sending an email to images@lsst.org. The email copies to the LSST Public Information Officer and the LSST Web Designer. A return email grants permission, "Yes, please feel free to use the image. We ask that you use the image credit shown with it on our website [insert the credit & url to gallery]."

If the image requested is outdated or of poor quality/resolution the Web Designer will suggest another image to be used.

4.9 Holiday Cards

The LSSTPO sends an annual holiday card to VIPs, agency representatives, distributed project personnel, science collaboration members, institutional member representatives, international affiliates, and friends of the project. The Communications group collaboratively designs the card; the Director approves the design; and the LSST Graphic Designer executes it and places the print requisition for the cards and the envelopes. To ensure sufficiently early distribution, the design process begins the first week of November.

DISTRIBUTION

The cards should be mailed no later than the first week in December. They can be taken to AURA Shipping/Receiving, who will apply postage. Whenever possible, cards with local addresses should be distributed through interoffice or inter-campus mail. If there are numerous cards with mail stops at the same address (e.g. SLAC or University of Washington), they can be sent as bundle in a single large envelope.

MAILING LIST

The mailing list should include all individuals in the ContactsDB who have provided a postal address and who are active participants with the project. An Excel spreadsheet with the appropriate addresses is exported from phpMyAdmin (<https://www.lsstcorp.org/phpmyadmin/>). To generate the mailing list

- 1) Open phpMyAdmin
- 2) Select lsst_contacts_v3 from the list of databases on the left-hand sidebar
- 3) Click “Query” from the menu at the top of the table
- 4) Select “tblcontacts” from the “Use Tables” box on the bottom left.
- 5) Click “Update Query”
- 6) Choose the parameters from the dropdown menus in “Column:”
 - Active
 - FirstName
 - LastName
 - Company
 - Address1
 - Address2
 - Address3
 - City
 - State
 - PostalCode
 - Country
- 7) “Add/Delete Columns” as necessary and “Update Query”
- 8) Check the “Show:” box for all Columns
- 9) Enter 1 in the “Criteria:” box under the column with Active as the entry.
- 10) Select “Ascending” from the “Sort” dropdown menu under the LastName column
- 11) Click “Submit Query”
- 12) Click “Export” from the menu at the top of the table
- 13) Select “Custom” as the “Export Method”
- 14) Select “Dump all rows” from “Rows
- 15) Select CSV from Format
- 16) Select “Put columns names in the first row” from Fortmat-specific options
- 17) Click “Go”

- 18) Retrieve file from downloads
- 19) Clean up the spreadsheet as necessary
- 20) Save

PRINTING ENVELOPES

1. Open Microsoft Word; choose "New Document;" Create
2. Go to "Mailings" tab and find the "Start Mail Merge" menu
3. Select "Step-by-Step Mail Merge Wizard"
4. In the right-hand column, choose "Envelopes"
5. Click "Next: Starting document" at the bottom of the column
6. Click "Envelope options..."
7. In the pop-up window,
 - Select "Custom size" from the "Envelope size" dropdown menu;
 - Enter 7.25" as Width and 5.25" as Height
 - Set "Delivery address" "From left" at 2.7" and "From top" at 2"
 - Click OK
8. Click "Next: select recipients"
9. Click "Browse..." from the "Use an existing list section" and select the appropriate Excel spreadsheet and click "OK"
10. Click "Next: Arrange your envelope;" click "More items..." and select the desired fields.
11. Arrange the fields in an address block in the envelope's center – add commas, spaces, and carriage returns in the appropriate places.
12. Click "Next: Preview your envelopes" and preview several)
13. If the envelopes are correct, click "Next: Complete the merge"
14. Feed 8-10 envelopes in the printer bypass tray
15. Click "Print" from the Merge menu in the right-hand sidebar
16. Only feed 8-10 envelopes at a time and expect mis-feeds

Appendix A: Synchronizing the Contacts Database & Mailman Lists

A matrix mapping Mailman listservs to their corresponding Contacts DB subcategories can be found at ([LPM-83](#)).

The ContactsDB and the Mailman listserv are compared and synchronized using a series of shell scripts called MySQL queries. The MySQL queries are executed on the web server; the output is transferred to the listserv machine and is used to sync the ContactsDB to Mailman. On the listserv machine, once per night, scripts are called to massage the MySQL query results into a Mailman defined format. Before synchronization, a script records the current membership and compares to yesterday's membership, reports any changes, and then the lists are synchronized.

mysql_script.bat

- At 7pm, the script `mysql_script.bat` runs on the web server to execute several query statements on the ContactsDB. Each query produces an output of first and last names and email address in comma separated values (csv). Each output will be used to sync a particular list on the listserv machine.
- The executed query statements are stored in files located on the web server with the following name structure: 'query_<reference to list>' or 'category>.sql'.
- Each query statement looks at a particular group (`tblcategoryheaders.CategoryHeaderTitle`) and subgroup (`tblcontactcategory*.ContactCategoryCategoryID`) in the ContactsDB for one or more attributes: 'Active' and 'Member', or 'Active' and 'Affiliate'. Currently the script does not look to see if the contact in `tblcontacts` is 'Active' or 'Inactive'.
- When all of the queries are completed, the csv file is transferred to the listserv machine.

mailman_changes.sh

At 9pm, the script `mailman_changes.sh` runs on the listserv machine, launching several scripts in sequential order which accomplish the following tasks:

- For each Mailman list, compare the membership of the previous day to the current day and report the changes. The reported changes will be used later.
- Format the data from the ContactsDB query outputs from the csv format to an acceptable Mailman format.
- Perform the actual synchronizing of each Mailman list that has a corresponding subgroup (`tblcontactcategory*.ContactCategoryCategoryID`) in the ContactsDB.
- Report on all activities for debugging and error purposes.
- Using the now current Mailman lists, three other mailman lists are updated: LSST-Science (aka LSST-ScienceOnly); LSST-ProjectAndScience; LSST-World

Here are the details of each script in `mailman_changes.sh`

subscrp_all_lists.sh renames existing files with the naming convention, 'formatted_mm_<list_name>.txt' to 'formatted_mm_<list_name>.txt.yesterday' where the '*.yesterday' file is a listing of the membership of a particular Mailman list. Then, for each Mailman list, the current membership is exported and this information will be used in the next script.

diff_in_lists.sh compares the corresponding files, 'formatted_mm_<list_name>.txt' and 'formatted_mm_<list_name>.txt.yesterday' for changes done to the particular list via the Mailman Interface. Any differences will be used to update the ContactsDB with new members as 'Active' 'Affiliates' of the corresponding subgroup (if it exists), or at the very least, adds the new member as a new contact in the ContactsDB. Any changes found during the compare are saved to either 'remove_db_comm_formatted_mm_<list_name>.txt' or 'add_db_comm_formatted_mm_<list_name>.txt',

denoting if the member of the Mailman list should be classified as an 'Active' 'Affiliate' (add_db) or

should be classified as an 'Inactive' 'Affiliate' (remove_db) to the corresponding subgroup. This information will be used in the Mailman->ContactsDB sync.

message_db_members.sh performs text manipulation on the csv query outputs (*mysql_script.bat*) from the web server to the format "First Last" <email@domain.com> and saves the newly massaged data into a file named 'formatted_db_<list_name>.txt'. Also for query outputs in the form 'db_X_<list_name>' (having several outputs), all of the outputs are now combined.

sync_lists.sh is the heart of the synchronization process. Using the Mailman sync command, a compare is done between the file named 'formatted_db_<list_name>.txt' and the list, and any changes are synced. The common changes are adding to the list, removing from the list, or altering email address. This is the ContactsDB->Mailman sync.

read_what_happened.sh is a report/debug tool to collect what happened during each script found in *mailman_changes.sh*.

There is an outstanding task to complete the synchronizing system:

- We left the option available to allow list administrators to add Members to their list. Those new members of the list should be added to the ContactsDB, and if one of the defined lists to be synced, added to the particular category as an Affiliate.

Planned System Enhancements:

- Standardize entries to "state" field by restricting entries to Post Office approved abbreviations, and allowing for provinces or states of countries other than the U.S.
- Standardize the telephone number formatted display by restricting the entry process; needs to allow for international numbers.
- Automate adding to ContactsDB people who were added via Mailman mail lists
- Restrict assignment to member and affiliate as either not both (group leader may be assigned in addition)
- Allow a contact to be Inactive in tblcontactCategoryXX but Active in tblcontacts - queries should test first for 'Active' in tblcontacts, then 'Active' in tblcontactcategoryXX before any other queries.
- When a subgroup gets renamed, the existing db fields do NOT get renamed. Ideally those fields should be updated.

Notes:

- Describe the search and reporting of Institutional Members (lsstcorp.org and lsst.org) how are Reps associated with Institutional members? what about multiple reps? Ask Dwight - should be handled in a Drupal page

Appendix B: Project-Controlled Mailman Lists Definitions

Project controlled Mailman list serves are synced to the LSST Contacts DB. Each list's membership and

contact information derives from information in the corresponding Contacts DB subcategory.

ACTIVE LISTS

LSST-AGN: Members of the AGN science collaboration; synced to the AGN subcategory of the Contacts DB group Science Collaborations

LSST-AMCL: Members of the AMCL; synced to the AMCL subcategory of the Contacts DB group Agencies

LSST-BoardOfDirectors: Voting members (Executive Board) of the LSSTC Board of Directors; synced to the Executive Board subcategory of the Contacts DB LSST Board

LSST-ChangeControlBoard: Members of the LSST Change Control Board; synced to the Change Control Board subcategory of the Contacts DB group Systems Engineering & Commissioning

LSST-data: Members of the Data Management team; synced to the Data Management Team subcategory of the Contacts DB group Data Management

LSST-datascience: Members of the Statistics and Informatics science collaboration; synced to the Statistics and Informatics subcategory of the Contacts DB group Science Collaborations

LSST-DMChangeControl: Members of the team managing change control for the Data Management subsystem; synced to the DM Change Control subcategory of the Contacts DB group Data Management

LSST-epo-oab: Members of the EPO Outreach Advisory Board; synced to the EPO Outreach Advisory Board subcategory of the Contacts DB group Education and Public Outreach

LSST-FriendsOnly: Friends of the project who are unaffiliated with technical work, science collaborations, or oversight groups; synced to the Friends subcategory in the Contacts DB group Project Management

LSST-galaxies: Members of the Galaxies science collaboration; synced to the Galaxies subcategory of the Contacts DB group Science Collaborations

LSST-GRO: LSSTC institutional members' Government Relations Officers; synced to the Government Relations Officers subcategory of the Contacts DB group LSST Board

LSST-InstitutionalRepresentatives: LSSTC Executive Board members and Institutional Representatives; synced to the Board and Institutional Representatives subcategory of the Contacts DB group LSST Board

LSST-InternationalOperations: Points of Contact for the international institutions that have expressed interest in supporting LSST Operations; synced to the International Affiliates subcategory of the Contacts DB group LSST Board

LSST-ManagementMeetingAttendee: Attendees of the weekly Thursday afternoon management team meeting; synced to the Management Meeting Attendee subcategory of the Contacts DB group Project Management

LSST-MembershipCommittee: Members of the LSSTC Board committee on new members; synced to the CommitteeNewMembership subcategory of the Contacts DB group LSST Board

LSST-milkyway: Members of the Stars, Milky Way Structure, Local Volume science collaboration; synced



to the Milky Way Structure subcategory of the Contacts DB group Science Collaborations

LSST-opsim: Members of the Operations Simulation team; synced to the Operations Simulation Team subcategory of the Contacts DB group Simulations

LSST-ProjectAndScience: A union of ProjectOnly and ScienceOnly

LSST-ProjectOnly: Individuals actively participating in the programmatic and technical work of the project; synced to the Camera Team Members subcategory of the Contacts DB Camera group; the Data Management Team subcategory of the Data Management group; the subcategories of the Education and Public Outreach group; the Site Architecture and Telescope and Site subcategories of the Telescope and Site group; the Tucson Office, Davis Office, and Project Adjunct subcategories of the Project Management group; and the Systems Engineering Core Group, Calibration Team, Image Simulation Team, and Operations Simulation Team subcategories of the Systems Engineering & Commissioning group

LSST-PubBoard: Members of the LSSTC Board Publications Board; synced to the Publication Board subcategory of the Contacts DB group LSST Board

LSST-sc: Members of the LSST Science Council; synced to the Science Council subcategory of the Contacts DB group Science

LSST-ScienceOnly: Active members and affiliates of the Science Collaborations; synced to the Science Adjunct subcategory of the Contacts DB group Science and the subcategories in the Contacts DB group Science Collaborations

LSST-science-working-group: Science Collaboration Chairs; synced to the Science Working Group subcategory of the Contacts DB group Science

LSST-solarsystem: Members of the Solar System science collaboration; synced to the Solar System subcategory of the Contacts DB group Science Collaborations

LSST-stellarpops: Members of the Stellar Populations science collaboration; synced to the Stellar Populations subcategory of the Contacts DB group Science Collaborations

LSST-stronglens: Members of the Strong Lensing science collaboration; synced to the Strong Lensing subcategory of the Contacts DB group Science Collaborations

LSST-supernovae: Members of the Supernovae science collaboration; synced to the Supernovae subcategory of the Contacts DB group Science Collaborations

LSST-Systems-Engineering: Members of the Systems Engineering core group, including the subsystem managers, subsystem scientists, systems engineer, subsystem system engineers, and simulations team leads; synced to the Systems Engineering Core Group subcategory of the Contacts DB group Science Collaborations

LSST-transient: Members of the Transients science collaboration; synced to the Transients subcategory of the Contacts DB group Science Collaborations

LSST-weakens: Members of the Weak Lensing science collaboration; synced to the Weak Lensing



subcategory of the Contacts DB group Science Collaborations

LSST-World: All entries for individuals with Active status in Contacts DB subcategory

ARCHIVE ONLY LISTS

Archive lists are kept in order to allow access to archived messages. New messages may not be sent to these lists.

LSST-AHMPlanning: Members of the 2012 AHM planning committee; no longer in use; formerly synced to the erstwhile AHM Planning subcategory, which has been deleted from the Contacts DB

LSST-DirReviewers: Review committee members from the 2011 LSST Directors Review; no longer in use - formerly synced to the erstwhile DirReviewers subcategory, which has been deleted from the Contacts DB

LSST-Iss: Members of the Large-Scale Structure science collaboration; formerly synced to the Large-Scale Structure subcategory, which has been deleted from the Contacts DB

LSST-PDR-Team: Group leaders involved in preparations for PDR; no longer in use - formerly synced to the erstwhile PDR Prep subcategory, which has been deleted from the Contacts DB

LSST-SPIE2012: Authors and reviewers of papers for SPIE 2012; no longer in use - formerly synced to the erstwhile SPIE2012 subcategory, which has been deleted from the Contacts DB

LSST-SysRev1: Participants in the Interface Control breakout of the 2012 Joint Interface and Management Review; formerly synced to the SysRev1 subcategory of the Contacts DB group Systems Engineering, which has been deleted from the Contacts DB

LSST-SysRev2: Participants in the System Flowdown breakout of the 2012 Joint Interface and Management Review; no longer in use – formerly synced to the SysRev2 subcategory of the Contacts DB group Systems Engineering

LSST-SysRevAll: All participants in the 2012 Joint Interface and Management Review, combining membership of SysRev1 and SysRev2; no longer in use – formerly synced to the SysRevAll subcategory of the Contacts DB group Systems Engineering