Telescope Time Allocation Tools

Requirements Report
688-TTAT-14-MGMT

Project: 688

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CHANGE RECORD

VERSION	DATE	SECTIONS	CHANGE DESCRIPTION
1.0	3/20/2020		Report Generated for CoDR

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1 INTRODUCTION

The TTA Tools project has elected to use the CAMEO modelling system to track and model requirements. This report is generated for convenience based on the contents of the model at an instant in time. The model is defined to be the definitive source for requirements.

From the project charter [RD01] we derive the top-level requirement for the project.

TTA-1 Develop TTA System	Develop a new suite of software tools to support the submission, scientific and technical review, and time allocation of proposals for the NRAO telescopes, consistent with the requirements for observing preparation given NRAO's commitment to SRDP.

Following the ngVLA Preliminary System Requirements three subsequent levels or requirements are defined.

- **Level-0 (L0)**: User requirements expressed in terms applicable to their needs or use cases ("Science Requirements" or "Stakeholder Requirements").
- **Level-1 (L1)**: Requirements expressed in technical functional or performance terms, but still implementation agnostic ("System Level Requirements").
- **Level-2 (L2)**: Requirements that define a specification for an element of the system, presuming an architecture ("Sub System Requirements")

The requirements below have been distilled from multiple sources by the DMS Architect and reviewed by the Project Director and Project Scientist. In addition to the project charter, these requirements derive from the TTA Tools Concept [RD02] and the System Description [RD03]. Additional requirements are allocated to the TTA Tools system from the SRDP project [RD04]. Collaborative review and iteration among the DMS Architect, the Project Scientist, and the Project Director both before and during the development of the conceptual architecture have refined, clarified, and informed the requirements.

1.1 Applicable Documents

1.2 Reference Documents

[RD01] New Telescope Time Allocation Tools Charter 530-SRDP-039-TTAT
[RD02] Telescope Time Allocation (TTA): Concept 530-SRDP-040-TTAT
[RD03] TTA System Description 688-TTAT-004-MGMT
[RD04] Science Ready Data Products Stakeholder Requirements 530-SRDP-015-MGMT

2 Stakeholder Requirements (Level-0)

Name	Text	Derived From
TTA-L0-5 Support SRDP Operations	Capture desired scientific products as part of proposal.	TTA-1 Develop TTA System
TTA-L0-9 Simplify Proposal and Observing Process	Capture scientific intent and technical details at proposal stage.	TTA-1 Develop TTA System
TTA-L0-6 Support novice observer	Decrease requirement of detailed telescope knowledge at the proposal stage.	TTA-1 Develop TTA System
TTA-L0-7 Observing Prep Software Interface	Identify the requirements for the interface between the TTA system and the project preparation tools, in anticipation of the timely development of new project preparation tool.	TTA-1 Develop TTA System
TTA-L0-2 Support Expert Users	Permit expert users to override defaults.	TTA-1 Develop TTA System
TTA-L0-4 Allocate telescope time	Proposal process allocates telescope time instead of sensitivity.	TTA-1 Develop TTA System
TTA-L0-3 Supported Telescopes	The following telescopes must be supported: VLA, VLBA, GMVA, HSA, GBT, and ngVLA.	TTA-1 Develop TTA System
TTA-L0-3.1 GBT	The GBT shall be supported by this system.	
TTA-L0-3.4 GMVA	The GMVA shall be supported by this system	
TTA-L0-3.2 HSA	The High Sensitivity Array shall be supported by this system	
TTA-L0-3.3 VLA	The VLA shall be supported by this system	
TTA-L0-3.5 VLBA	The VLBA shall be supported by this system	
TTA-L0-3.6 ngVLA	The VLBA shall be supported by this system	
TTA-L0-1 User Experience	The look and feel of NRAO software should be similar across the different facilities if at all possible.	TTA-1 Develop TTA System
TTA-L0-1.4 Proposal Submission Experience	If possible, proposal submission via the TTA system should be similar for any NRAO instrument.	TTA-L0-1 User Experience
TTA-L0-1.2 Technology	The TTA system will be a web-based tool.	TTA-L0-1 User Experience
TTA-L0-1.3 User Interface	The user interface will follow the design and functionality of the ALMA OT.	TTA-L0-1 User Experience
TTA-L0-1.1 Code reuse	To the extent that it is efficient to do so, the implementation is expected to draw from the ALMA tools as well.	TTA-L0-1 User Experience
TTA-L0-8 Support Observatory Metric Analyst	TTA shall provide proposal and observation data for metric analysis and reporting.	TTA-1 Develop TTA System
TTA-L0-8.2 Calculated Metrics	The system must calculate and store metrics.	TTA-L0-8 Support Observatory Metric Analyst

Name	Text	Derived From
TTA-L0-8.1 Metrics Data	The system must persist historical data used for metric calculations.	TTA-L0-8 Support Observatory Metric Analyst
TTA-L0-8.3 Metric Data Access	TTA data must be accessible for generating novel metrics reports without the need for UI modifications.	TTA-L0-8 Support Observatory Metric Analyst
TTA-L0-23 Support collaborative Proposal Development	TTA users must be able to easily share proposal information throughout the proposal process.	TTA-1 Develop TTA System
TTA-L0-25 Equitable and Fair Reviews	Best practices for ensuring an equitable and fair review process shall be supported by the tool suite.	TTA-1 Develop TTA System
TTA-L0-25.1 Double Anonymous Reviews	TTA Tools shall support a dual anonymous process where authors will not know who is reviewing proposals and vice versa.	
TTA-L0-24 SRDP	For telescopes where SRDP are in scope, sufficient information must be gathered such that observations and reduction could be executed based solely on the information entered into this suite of tools and additional observatory information such as scheduling.	TTA-1 Develop TTA System
TTA-L0-28 Review Configuration	Prior to the beginning of the review process a TTA Group member will configure TTA Tools to support Science, Technical and Data Management Reviews.	TTA-L0-18 Review
TTA-L0-22 Directors Review and Time Award	The suite of Tools satisfying TTA-1 will support Directors Review and Time Award.	TTA-1 Develop TTA System
TTA-L0-17 Proposal	The suite of Tools satisfying TTA-1 will support preparation and submission of proposals.	TTA-1 Develop TTA System
TTA-L0-18 Review	The suite of Tools satisfying TTA-1 will support proposal review.	TTA-1 Develop TTA System
TTA-L0-21 Solicitation	The suite of Tools satisfying TTA-1 will support specification of an observing proposal solicitation.	TTA-1 Develop TTA System
TTA-L0-19 Time Allocation	The suite of Tools satisfying TTA-1 will support Time Allocation Committee Meeting.	TTA-1 Develop TTA System
TTA-L0-27 Proposal Vetting	TTA Tools shall support a dual anonymous process where authors will not know who is reviewing proposals and vice versa.	
TTA-SRDP-12 Data Management Plan	Large Projects process shall submit a data management plan and data release policy for data products generated during execution of the project in the observing proposal. Description of the data products and approximate size shall be included in all future proposals.	SRDP-L0-9 Large Projects
TTA-SRDP-9 Required Information	SRDP compliant proposals shall include adequate information for creation of scheduling blocks and observing scripts.	SRDP-L0-1 Standard Calibration

Name	Text	Derived From
TTA-SRDP-10 Image Product Specification	The parameters of the SRDP products shall be explicitly specified in the observing proposal.	SRDP-L0-2 Standard Imaging
TTA-SRDP-10.3 Multiple Executions	Combined imaging of multiple executions of the same scheduling block in the same configuration shall be supported.	
TTA-SRDP-10.2 Parameterization	Parameters for SRDP products shall specify image characteristics (as opposed to processing instructions).	
TTA-SRDP-10.2.3 Multiple Phase Centers	If multiple phase centers are specified, the proposal shall specify if they are to be mosaiced or imaged independently.	
TTA-SRDP-10.2.1 Spatial Resolution	The desired spatial resolution shall be specified as part of the observing proposal.	
TTA-SRDP-10.2.2 Spectral Resolution	The desired spatial resolution shall be specified as part of the observing proposal.	
TTA-SRDP-10.1 Opt out of SRDP Images	Projects shall be able to opt out of SRDP Imaging at the proposal submission stage with a brief description of why SRDP imaging is not appropriate for the project.	
TTA-SRDP-11 Time Critical Processing	The proposal tool shall allow telescope users to designate projects for time critical processing.	SRDP-L0-8 Time Critical Observations
TTA-SRDP-11.1 Critical Product Specification	The proposal submission tool shall allow the telescope user to specify which data products should be treated as time critical: calibrated visibilities, quick-look images, or science-ready images.	
TTA-SRDP-11.2 Observing Restrictions	Time critical processing shall conform to standard observing templates, and specify the characteristics of the desired imaging products.	
TTA-SRDP-7 Support for Combined Products	The proposal tool shall support the specification of products requiring combined imaging.	SRDP-L0-7.2 Proposal Based Combined Imaging
TTA-SRDP-7.2 Consistency of observation.	The observing tool shall ensure that the spatial and spectral coordinates of the observation are consistent between the different epochs of observation.	
TTA-SRDP-7.1 Display of related observations.	Observations for combined products should be grouped together.	
TTA-SRDP-7.3 Ratio of Observing Times	Total integration times for each configuration shall be set according to observatory determined ratios.	
TTA-SRDP-8 Opt out of SRDP Calibration	The SRDP Proposal process shall allow the user to "opt out" of the standard calibration process, with documentation to justify the decision. Such proposals shall inhibit automatic trigger of the Standard calibration pipeline.	SRDP-L0-1 Standard Calibration

3 System Requirements (Level-1)

Name	Text	Derived From
TTA-L1-1 Proposal Solicitation	The process begins when the observatory announces a solicitation to use observatory resources, typically a call for proposals to request time on one or more of Associated Universities Inc. (AUI) North American (NA) telescopes.	TTA-L0-21 Solicitation
TTA-L1-1.16 Unique Identifier	A global unique identifier, referred to as a serial number, shall be associated with a proposal when it is created.	TTA-L0-21 Solicitation
TTA-L1-1.9 Solicitation Facilities	A Solicitation is composed of...the various ways a Facility can be operated.	TTA-L0-21 Solicitation TTA-L0-3 Supported Telescopes TTA-L0-3.1 GBT TTA-L0-3.2 HSA TTA-L0-3.3 VLA TTA-L0-3.4 GMVA TTA-L0-3.5 VLBA TTA-L0-3.6 ngVLA
TTA-L1-1.15 Open Solicitation	After validation, the call for proposals is officially "opened" by the TTA Group through a provided interface. That is, the user can now create and submit proposals for the solicitation in question. At this point all "validation proposals" are removed from the system and no further changes to the solicitation parameters are permitted.	TTA-L0-21 Solicitation
TTA-L1-1.29 Demo Closeout	At the end of the workshop, the proposals may be removed from the system and shall not be linked to the users account (i.e., show up in their personal list of proposals).	TTA-L0-21 Solicitation
TTA-L1-1.14 Specification Constraints	Capabilities are composed of Specification Constraints; these are essentially restriction on the available resources.	TTA-L0-21 Solicitation TTA-L0-3 Supported Telescopes TTA-L0-3.1 GBT TTA-L0-3.2 HSA TTA-L0-3.3 VLA TTA-L0-3.4 GMVA TTA-L0-3.6 ngVLA

Name	Text	Derived From
TTA-L1-1.25 DDT Proposal Classes	Currently the DDT Proposal Classes are "Exploratory", "Target of Opportunity", or "EPO". These have the following configurable attributes: 1. Size of the proposal title. 2. Size of the abstract. 3. Size of the scientific justification 4. Available semesters to execute the observations.	TTA-L0-21 Solicitation TTA-L0-2 Support Expert Users TTA-L0-8.2 Calculated Metrics
TTA-L1-1.11 Semester Proposal Classes	Currently the Proposal Classes are "Regular" or "Large". These have the following configurable attributes: 1. Size of the proposal title. 2. Size of the abstract. 3. Size of the scientific justification 4. Available semesters to execute the observations.	TTA-L0-21 Solicitation TTA-L0-17 Proposal
TTA-L1-1.7 Solicitation Capabilities	For each solicitation the Capabilities define the resources that are available.	TTA-L0-21 Solicitation TTA-SRDP-9 Required Information
TTA-L1-1.8 Solicitation Proposal Process	For each solicitation, the Proposal Process describes how the proposal is handled by the observatory.	TTA-L0-17 Proposal TTA-L0-28 Review Configuration TTA-L0-21 Solicitation
TTA-L1-1.12 Facility-Capability Mapping	For now, we will assume a one-to-one mapping between Facilities and Capabilities for simplicity.	TTA-L0-3 Supported Telescopes TTA-L0-3.1 GBT TTA-L0-3.2 HSA TTA-L0-3.3 VLA TTA-L0-3.4 GMVA TTA-L0-3.5 VLBA TTA-L0-3.6 ngVLA TTA-L0-21 Solicitation TTA-L0-9 Simplify Proposal and Observing Process
TTA-L1-1.27 Demo Configuration	In setting up a proposal solicitation the TTA Group lead will want to specify that this is not an official call and thus no review or time allocation processes will be created.	TTA-L0-6 Support novice observer TTA-L0-21 Solicitation
TTA-L1-1.3 Solicitation Configuration	Many components of the solicitation will be configurable and the configuration history should be stored.	TTA-L0-21 Solicitation

Name	Text	Derived From
TTA-L1-1.28 Demo Notifications	Notifications to the PI and TTA members shall be configurable as part of the solicitation configuration. This shall include suppression or redirection of notifications.	TTA-L0-21 Solicitation
TTA-L1-1.4 Configure Solicitation	Prior to the call for proposals the TTA Group will specify the parameters for the observing call.	TTA-L0-21 Solicitation
TTA-L1-1.4.7 Capabilities	A configurable list of Capabilities shall be selected by the TTA Group. For example, on-the-fly mapping single-dish or single-field interferometry. Each of these is connected to a Facility (e.g., GBT and VLA). For each Capability the TTA Group will select the configurable list of resources and their constraints; that is, the Specification Constraints. For example, a list of the receivers for each Capability (e.g., L,S,X) and their constraints (e.g., frequency range).	TTA-L0-21 Solicitation TTA-SRDP-9 Required Information TTA-SRDP-10.2 Parameterization TTA-SRDP-10.2.1 Spatial Resolution TTA-SRDP-10.2.2 Spectral Resolution TTA-SRDP-10.2.3 Multiple Phase Centers TTA-SRDP-10.3 Multiple Executions TTA-L0-9 Simplify Proposal and Observing Process
TTA-L1-1.4.7.1 Capability Configuration	Capabilities defined in a file and may be imported and exported.	TTA-L0-21 Solicitation TTA-L0-9 Simplify Proposal and Observing Process
TTA-L1-1.4.6 Facility	Each Facility will have the following configurable attributes: 1. The technical justification cues. 2. If triggered observing is available and the list of triggered criteria. 3. A list of constraints.	TTA-L0-21 Solicitation
TTA-L1-1.4.8 Validate Capabilities	Once a Solicitation has been created the TTA Group may create test proposals to validate that the Capabilities are functioning correctly.	TTA-L0-21 Solicitation
TTA-L1-1.23 Resident Shared Risk Observing	Resident Shared Risk Observing shall be supported through special capabilities.	TTA-L0-3.3 VLA TTA-L0-3.5 VLBA TTA-L0-21 Solicitation
TTA-L1-1.18 Call Period	The solicitation shall specify the call period or the period over which users may create, edit, and submit a proposal.	TTA-L0-21 Solicitation TTA-L0-8.1 Metrics Data TTA-L0-8.2 Calculated Metrics

Name	Text	Derived From
TTA-L1-1.19 Science Categories	The solicitation shall specify the list of science categories for selection by the user. There is not necessarily a one-to-one correspondence between science category and review panel.	TTA-L0-21 Solicitation TTA-L0-1.4 Proposal Submission Experience
TTA-L1-1.17 Execution Period	The solicitation shall specify the nominal execution period or the period over which the observations will be performed.	TTA-L0-21 Solicitation
TTA-L1-1.2 Support Multiple Solicitations	The system shall support multiple concurrent proposal solicitations.	TTA-L0-21 Solicitation TTA-L0-8.1 Metrics Data
TTA-L1-1.20 Semester Proposal Solicitation	The system shall support semester solicitations, these periodic solicitations is the most used in operations of AUI/NA Telescopes.	TTA-L0-3 Supported Telescopes TTA-L0-3.1 GBT TTA-L0-3.2 HSA TTA-L0-3.3 VLA TTA-L0-3.4 GMVA TTA-L0-3.5 VLBA TTA-L0-21 Solicitation
TTA-L1-1.21 DDT Proposal Solicitation	The system shall support solicitations for Directors Discretionary Time, allowing for immediate review and scheduling of out of cycle proposals.	TTA-L0-3.1 GBT TTA-L0-3.3 VLA TTA-L0-3.5 VLBA TTA-L0-3.6 ngVLA TTA-L0-21 Solicitation TTA-L0-2 Support Expert Users
TTA-L1-1.22 Sponsored Proposal Solicitation	The system shall support solicitations for sponsored proposals. Although not subject to the standard review these projects should have traceability in the system (unless they are closed).	TTA-L0-3.1 GBT TTA-L0-3.5 VLBA TTA-L0-21 Solicitation
TTA-L1-1.24 Demo Proposal Solicitation	The system shall support the creation of proposals for testing or training purposes that are not intended to be observed.	TTA-L0-21 Solicitation
TTA-L1-1.6 External Solicitation	There also exist solicitations from external facilities where time is allocated by an external TAC.	TTA-L0-21 Solicitation
TTA-L1-1.5 Notification Groups	There shall be notification groups that are configurable. The notifications will be a function of the Solicitation.	TTA-L0-21 Solicitation
TTA-L1-1.26 Demo Capabilities	Usually the capabilities are based on the current or upcoming solicitation.	TTA-L0-6 Support novice observer TTA-L0-21 Solicitation
Propose		
TTA-L1-2 Create Proposal	A proposal requesting time on one or more telescopes for a semester solicitation is the most common method of accessing AUI NA telescopes.	TTA-L0-17 Proposal

Name	Text	Derived From
TTA-L1-2.2 Re-Submission	A method of specifying if this is a RE-SUBMISSION should be available.	TTA-L0-17 Proposal
TTA-L1-2.5 Manage Allocation Requests	A method to add and remove Allocation Requests from the proposal shall be provided.	TTA-L0-17 Proposal
TTA-L1-2.5.1 Allocation Request Information	At the Allocation Request level, the capabilities of the solicitation must be defined. The resources that can be specified are given by the REQUEST SPECIFICATION. For each REQUEST SPECIFICATION the set of capabilities must be defined. The set of capabilities is defined as the set of Front Ends, Back Ends, and SRDPs offered to the proposer, as well as the validation constraints to be used when validating these OBSERVATION SPECIFICATION components. It is expected that the Capabilities will changes slowly from one semester to the next so provision to modify a previous semester's Solicitation to create new Solicitation shall be made.	TTA-L0-17 Proposal TTA-SRDP-7 Support for Combined Products
TTA-L1-2.4 Enter Proposal Information	A registered, authenticated user must be able to enter all of the information required to create a proposal.	TTA-L0-17 Proposal
TTA-L1-2.4.3 Enter Related Proposal	A method of indicating any previous RELATED PROPOSALS shall be provided. To reduce the probability of mistakes, the title of any related proposal shall be displayed.	TTA-L0-17 Proposal
TTA-L1-2.4.2 Enter Proposal Title	A text entry field defining the proposal TITLE shall be provided (word limit applies).	TTA-L0-17 Proposal
TTA-L1-2.4.5 Enter Proposal Abstract	A text entry field used to enter a proposal ABSTRACT shall be provided (word limit applies).	TTA-L0-17 Proposal
TTA-L1-2.4.1 Proposal Information Ownership	All authors shall be able to modify all fields in the proposal.	TTA-L0-17 Proposal TTA-L0-23 Support collaborative Proposal Development
TTA-L1-2.4.6 Validate Proposal Information	All text entry fields shall be validated for content to ensure the integrity of the proposal system. Text entry widgets shall accept Unicode input unless otherwise specified. Text fields may indicate that they have a word limit, in this case the limit should only be applied during the validation stage (although a warning could be produced earlier) to allow users flexibility when drafting entries.	TTA-L0-17 Proposal
TTA-L1-2.4.8 Enter Scientific Justification	Authors shall be able to attach and update a SCIENTIFIC JUSTIFICATION for each proposal.	TTA-L0-17 Proposal

Name	Text	Derived From
TTA-L1-2.4.8.1 Scientific Justification Format	The justification must be submitted in a PDF format and is subject to a page limit specified at the proposal solicitation definition phase.	TTA-L0-17 Proposal
TTA-L1-2.4.8.2 Scientific Justification Validation	The system will automatically validate the scientific justification conformance with requirements (Font, number of pages, etc)	TTA-L0-17 Proposal
TTA-L1-2.4.4 Enter Science Category	Authors will specify a single SCIENCE CATEGORY from the list of categories defined for the observing cycle, through a drop down or similar interface.	TTA-L0-17 Proposal TTA-L0-8.1 Metrics Data TTA-L0-8.2 Calculated Metrics TTA-L0-8.3 Metric Data Access
TTA-L1-2.4.9 Enter Student Project Information	Observations related to students THESIS PROJECT shall be indicated. This is a check box or similar mechanism.	TTA-L0-17 Proposal TTA-L0-8.1 Metrics Data TTA-L0-8.2 Calculated Metrics TTA-L0-8.3 Metric Data Access
TTA-L1-2.4.9.1 Enter Student Project Details	If selected the student author should be identified, their projected graduation date retrieved from the Account System, and a check that a thesis plan is on record for the student performed.	TTA-L1-2.4.9 Enter Student Project Information TTA-L0-17 Proposal TTA-L0-8.1 Metrics Data TTA-L0-8.2 Calculated Metrics TTA-L0-8.3 Metric Data Access
TTA-L1-2.4.7 Enter Proposal Review Category	The system will allow authors to select a solicitation for which the proposal is in response.	TTA-L0-17 Proposal
TTA-L1-2.6 Generate Proposal ID	A sequential PROPOSAL ID shall be generated for all proposals at submission.	TTA-L0-17 Proposal
TTA-L1-2.6.1 Proposal ID Algorithm	The proposal ID shall be constituted by the unique solicitation identifier specified in the solicitation followed by a dash and then at least three-digit proposal ID number (e.g. 19A-023). If more than three digits are required to uniquely identify all proposals additional digits shall be used.	TTA-L0-17 Proposal

Name	Text	Derived From
TTA-L1-2.7 Author List Entry	For each proposal a list of associated authors shall be entered through the proposal tool. Author information is maintained in the NRAO account system (see x4.1) and shall be referenced from the proposal. The information associated with the authors at the time of submission must be persisted.	TTA-L0-17 Proposal
TTA-L1-2.7.1 Default PI	Exactly one author shall be designated as PRINCIPAL INVESTIGATOR, by default the author initially creating the proposal shall be designated as the PI.	TTA-L0-17 Proposal
TTA-L1-2.7.4 Designate Contact Author	Exactly one author shall be designated as the Contact Author; by default, the author initially creating the proposal.	TTA-L0-17 Proposal
TTA-L1-2.7.4.1 Contact Author Email	An e-mail address must be associated with the Contact Author's information in the account sub-system.	TTA-L0-17 Proposal
TTA-L1-2.7.2 User Account	Provision shall be made to easily create user accounts for authors that do not yet have an account.	TTA-L0-17 Proposal TTA-L0-6 Support novice observer
TTA-L1-2.7.3 Author Information	When an author is added to a proposal all of the information in the author's profile should be associated with the proposal (e.g., this version of the profile is connected to the proposal). This profile information for all authors on the proposal should be updated when the proposal is submitted.	TTA-L0-17 Proposal TTA-L0-8.1 Metrics Data TTA-L0-8.2 Calculated Metrics TTA-L0-8.3 Metric Data Access
TTA-L1-2.3 Select Solicitation	The first action in the proposal tool must be to select the solicitation which sets the capabilities and the proposal process. The solicitations consist of "semester", "DDT", and "Special".	TTA-L0-17 Proposal TTA-L0-8 Support Observatory Metric Analyst TTA-L0-8.1 Metrics Data TTA-L0-8.2 Calculated Metrics TTA-L0-8.3 Metric Data Access
TTA-L1-2.3.1 Special Solicitation	"Special" solicitations are for proposals that are reviewed by an external TAC or a sponsored proposal.	TTA-L0-17 Proposal TTA-L0-21 Solicitation
TTA-L1-2.1 Abstract Status	When a proposal is given positive a disposition the following information shall be public: Proposal ID, title, PI, Co-Is, science category, proposal type (e.g., Large), Approved hours, abstract, and the date/time submitted.	TTA-L0-17 Proposal

Name	Text	Derived From
TTA-L1-24 Modification after Deadline	After the deadline and any specified grace period has passed the proposal may no longer be modified.	TTA-L0-17 Proposal
TTA-L1-14 Permissions	All authors on a proposal should have read/write privileges and there should be no locking for editing; we assume the collaborators are communicating about the proposal.	TTA-L0-17 Proposal
TTA-L1-15 Administration Permissions	Appropriate administrators (e.g., TTA Group) will also have read/write privileges to be able to provide technical and scientific support.	TTA-L0-17 Proposal
TTA-L1-26 Author Permission	Collaborators may be added to the proposal as Co-Investigators without any direct permission.	TTA-L0-17 Proposal
TTA-L1-16 UX	Container for user interface requirements.	TTA-L0-17 Proposal TTA-L0-6 Support novice observer TTA-L0-2 Support Expert Users
TTA-L1-16.9 Log In	A proposal begins when a registered user logs into the proposal tool and selects "semester" or "DDT" for the solicitation.	TTA-L0-17 Proposal
TTA-L1-16.8 TTA Group Withdraw	A TTA Group member shall be able to withdraw a proposal at any stage. That is, the withdraw functionality is global.	TTA-L0-17 Proposal
TTA-L1-16.6 Proposal Deadline	After the proposal has been submitted, any author should be able to continue to edit and submit the same proposal up until the deadline.	TTA-L0-17 Proposal
TTA-L1-16.5 Author Notification	All authors should be notified of the submission.	TTA-L0-17 Proposal
TTA-L1-16.3 Submit Proposal	Before the deadline the PI (or any author) should be able to submit the proposal through an option in the interface.	TTA-L0-17 Proposal
TTA-L1-16.1 View Multiple Proposals	Many users will be working on multiple proposals at once, so an interface to allow them to see all of their proposals and the current state of the proposals should be provided.	TTA-L0-17 Proposal TTA-L0-2 Support Expert Users
TTA-L1-16.4 Submission Verification	Once submitted a verification dialog should immediately appear providing the assigned proposal ID and the time of submission.	TTA-L0-17 Proposal TTA-L0-2 Support Expert Users TTA-L0-6 Support novice observer

Name	Text	Derived From
TTA-L1-16.7 Withdraw Proposal	Only TTA group members can withdraw a proposal once submitted.	TTA-L0-17 Proposal
TTA-L1-16.2 Previously Submitted Proposals	Users should also be able to view and access previously submitted proposals.	TTA-L0-17 Proposal
TTA-L1-38 Science Category Vetting	During the vetting process TTA members shall be able to view a subset of proposal content and modify the SCIENCE CATEGORY prior to marking the proposal as verified.	TTA-L0-27 Proposal Vetting
TTA-L1-35 External TAC Proposal Notification	For External TAC proposals, a notification should be sent to the PI after the TTA Group has created a proposal informing them to complete the proposal.	TTA-L0-17 Proposal
TTA-L1-36 Vetting	It shall be possible for TTA members to identify proposals that require vetting and either indicate that they have been verified or move the proposal to the withdrawn state.	TTA-L0-27 Proposal Vetting
TTA-L1-29 Create Proposal from Existing	It shall be possible, with best efforts, to create a new draft from a proposal in the WITHDRAWN or COMPLETED state.	TTA-L0-17 Proposal
TTA-L1-30 Proposal Migration	Migration of existing proposals. At a minimum the user should have access to past (PST) proposal PDFs. We need a data model first to decide how best to import current data.	TTA-L0-17 Proposal TTA-L0-8 Support Observatory Metric Analyst TTA-L0-8.1 Metrics Data TTA-L0-8.2 Calculated Metrics TTA-L0-8.3 Metric Data Access
TTA-L1-34 Notifications	Notifications shall be sent for successful submission of a proposal to the authors and the TTA group. Included should be the PROPOSAL ID, Proposal Class, TITLE, PI, CO-IS, SCIENCE CATEGORY, TIME SUBMITTED, and for each Allocation Disposition: the ALLOCATION REQUEST ID, the Facility, and if the proposal is TRIGGERED.	TTA-L0-17 Proposal
TTA-L1-37 Solicitation Vetting	Proposals submitted for a semester solicitation should be vetted to check that they are indeed appropriate for such a solicitation...A TTA Group member shall be able to flag such a proposal and move it to the WITHDRAWN state.	TTA-L0-27 Proposal Vetting
TTA-L1-23 Final Proposal Version	The last version of the proposal submitted will be the final version.	TTA-L0-17 Proposal

Name	Text	Derived From
TTA-L1-33 External TAC Proposal	The process starts when the TTA Group is notified by an external facility that a proposal has been approved by their TAC for observations on an AUI/NA telescope. The TTA Group will create a Proposal and the corresponding Allocation Dispositions. A notification is then sent to the PI informing them to fill in the appropriate information; that is, the Allocation Requests. After the proposal is validated the Project can be created.	TTA-L0-17 Proposal TTA-L0-3.1 GBT TTA-L0-3.3 VLA TTA-L0-3.5 VLBA TTA-L0-8 Support Observatory Metric Analyst
TTA-L1-27 Proposal States	The software shall maintain a state for each Proposal throughout the proposal life-cycle. The following set of states is the minimum set to be made available to telescope users: 1. DRAFT: The proposal has been created but not yet submitted. 2. SUBMITTED: The proposal has been submitted. At this stage the proposal can still be modified and submitted again. 3. IN REVIEW: The proposal has been submitted and can no longer be modified. 4. COMPLETED: The proposal has been reviewed and time allocated. A disposition letter has been sent. 5. WITHDRAWN: The proposal has been withdrawn after submission. Once a proposal is withdrawn it becomes stale; that is, the proposal cannot go to any other state.	TTA-L0-17 Proposal
TTA-L1-3 Authenticate User	The system shall authenticate users and ensure that only authorized modifications to the proposal are made.	TTA-L0-17 Proposal
TTA-L1-4 Validate Proposal	The system shall validate proposals throughout the proposal process to prevent incorrect or inconsistent values from being stored. (Dup-L1-1.2.8)	TTA-L0-17 Proposal TTA-L0-6 Support novice observer

Name	Text	Derived From
TTA-L1-40 Check Solicitation Boundary	There shall be a mechanism to check that the time of proposal submission is within the boundaries of the specified solicitation dates. For semester solicitations this is typically within one month leading up to the deadline; that is, users have about one month to create, edit, and then submit the proposal. There shall be a configurable grace period. For DDT proposals the system shall manage the date ranges automatically without requiring the author's input.	TTA-L0-17 Proposal
TTA-L1-42 Science Category Vetting Interface	There shall be an interface to aid a TTA Group member to vet the SCIENCE CATEGORY of all proposals submitted for a semester solicitation. The interface should show: (a) PROPOSAL ID (b) TITLE (c) ABSTRACT The user shall be able to filter by the SCIENCE CATEGORY. There shall be a way to select a different SCIENCE CATEGORY before saving. There shall be a mechanism to save the SCIENCE CATEGORY for all proposals. The history of the SCIENCE CATEGORY shall be maintained; that is, there shall be a way to view the original SCIENCE CATEGORY.	TTA-L0-27 Proposal Vetting
TTA-L1-39 Solicitation Types	Tracking and required vetting of proposals shall be configurable as part of solicitation configuration.	TTA-L0-17 Proposal
TTA-L1-12 Download proposal information	Users must be able to download a PDF version of the proposal at each stage of the proposal process.	TTA-L0-23 Support collaborative Proposal Development TTA-L0-17 Proposal
Review Configuration		
TTA-L1-54 Applying Configuration File Changes	Changes to the number of reviewers, panels, or science categories shall not require a software update.	TTA-L0-28 Review Configuration
TTA-L1-50 SRP Definition	Each SRP consists of a SCIENCE CATEGORY, SRP members, and an SRP chair. (A chair pro tem may be assigned at a later time.) There shall be two or more reviewers, consisting of SRP members and SRP chairs, assigned to each Proposal. A reviewer can only be on one SRP.	TTA-L0-25.1 Double Blind Reviews TTA-L0-28 Review Configuration

Name	Text	Derived From
TTA-L1-53 Review Configuration File	It shall be possible to execute a configuration file. For example, for testing purposes a TTA Group member will want to automatically configure the system using a previous configuration file.	TTA-L0-28 Review Configuration
TTA-L1-52 Review Panel Setup Access	Only members of TTA Group shall be able to view and modify the Review Panel Setup.	TTA-L0-25.1 Double Blind Reviews TTA-L0-28 Review Configuration
TTA-L1-46 Science Review Panel Configuration	Prior to the beginning of the review process a TTA Group member will configure the science review panels (SRPs).	TTA-L0-25.1 Double Blind Reviews TTA-L0-28 Review Configuration
TTA-L1-47 Feasibility Review Configuration	Prior to the beginning of the review process a TTA Group member will configure the system to assign zero or more reviewers to evaluate the feasibility of each Allocation Request.	TTA-L0-6 Support novice observer TTA-SRDP-12 Data Management Plan TTA-L0-28 Review Configuration
TTA-L1-49 Starting SRP Configuration	The starting configuration should be defaulted to a previous cycle's values.	TTA-L0-25.1 Double Blind Reviews TTA-L0-28 Review Configuration
TTA-L1-51 Data Management Review Configuration	The structure of data management reviews is similar to technical reviews, except that they will mostly likely only be performed on a small sub-set of Allocation Request. This determination will likely depend on reasonable logical combinations of TOTAL REQUESTED TIME, ESTIMATED PROCESSING, and ESTIMATED DATA VOLUME. It is very likely that these criteria will evolve over time, so reasonable effort shall be made to provide flexibility in the software.	TTA-SRDP-12 Data Management Plan TTA-L0-28 Review Configuration
TTA-L1-48 Feasibility Review Assignments	To manage assignments the software shall support a mechanism to specify groups of reviewers that can be applied to one or more Allocation Requests.	TTA-L0-28 Review Configuration
Review		
TTA-L1-64 Notifications	1. When all reviewers in a given SRP have completed their individual reviews a notification should be sent to the SRP chair and the TTA group.	TTA-L0-18 Review
TTA-L1-92 Proposal Review Entry	A reviewer shall be able to enter a review for REVIEW TYPES Primary, Secondary, or Tertiary.	TTA-L0-18 Review TTA-L0-25.1 Double Blind Reviews

Name	Text	Derived From
TTA-L1-90 Manual Proposal Conflict Notification	A summary of conflicts status shall be sent to the SRP chair and the TTA group members when all reviewers have either "Conflict" or "Available" relation for all proposals assigned to the panel.	TTA-L0-18 Review
TTA-L1-81 Simulate CSR	A TTA Group member shall be able to simulate consensus reviews for testing purposes.	TTA-L0-18 Review
TTA-L1-75 Simulate ISR	A TTA Group member shall be able to simulate individual reviews for testing purposes.	TTA-L0-18 Review
TTA-L1-87 Simulate Feasibility Review	A TTA Group member shall be able to simulate technical/data management reviews for testing purposes.	TTA-L0-18 Review
TTA-L1-85 Feasibility Review	Feasibility reviews are assessments of each Allocation Request. Technical reviews are assessments of technical feasibility and accuracy of the information provided in the technical justification often performed by observatory staff. Data Management reviews are assessments of the feasibility and impact of the processing associated with each allocation request.	TTA-L0-18 Review TTA-SRDP-12 Data Management Plan
TTA-L1-84 Feasibility Review Output	For each Allocation Request the Feasibility Reviewer enters COMMENTS FOR THE PI and INTERNAL COMMENTS. The COMMENTS FOR THE PI will be visible to the PI but also to SRP and TAC members. The INTERNAL COMMENTS will only be visible to the SRP, TAC and TTA Group.	TTA-L0-18 Review TTA-SRDP-12 Data Management Plan
TTA-L1-88 Store Review Information	For observatory site reviews there shall be a mechanism for a TTA Group member to store review information using the TTA Tools. This shall consist of scientific, technical, and data management components for both internal and PI comments.	TTA-L0-18 Review TTA-L0-8 Support Observatory Metric Analyst TTA-L0-8.1 Metrics Data TTA-L0-8.2 Calculated Metrics TTA-L0-8.3 Metric Data Access
TTA-L1-80 Consensus Review History	History of the changes made during the consensus review need to be tracked.	TTA-L0-18 Review TTA-L0-25.1 Double Blind Reviews
TTA-L1-94 Reassign Reviewer	In the rare case that a reviewer feels uncomfortable reviewing a proposal they will communicate outside the TTA Tools to a TTA Group member to reassign the review.	TTA-L0-18 Review

Name	Text	Derived From
TTA-L1-95 Feasibility Review Inputs	It shall be possible for a reviewer to enter review results either directly through the review interface or via a file import. In either case values shall be validated upon entry: (a) COMMENTS FOR THE PI are variable length strings. (b) INTERNAL COMMENTS are variable length strings.	TTA-L0-18 Review
TTA-L1-63 Review Results Entry	It shall be possible for a reviewer to enter review results either directly through the review interface or via a file import. In either case values shall be validated upon entry: (a) The INDIVIDUAL SCORE for each Proposal shall be validated to be within range (currently defined on the open interval between 0 and 10, in one tenth point increments). (b) COMMENTS FOR THE SRP are variable length strings.	TTA-L0-18 Review
TTA-L1-73 Close Reviews	It shall be possible for a TTA Group member to close out all of the reviews of a given reviewer. A review that has been closed is no longer considered; that is, the score is not used in the normalization process and the text is not shown.	TTA-L0-18 Review TTA-L0-25.1 Double Blind Reviews
TTA-L1-72 Complete Reviews	It shall be possible for a TTA Group member to complete all of the reviews for a given reviewer. This assumes a valid score has been entered; otherwise the review will be closed out; that is, not included.	TTA-L0-18 Review TTA-L0-25.1 Double Blind Reviews
TTA-L1-89 Automatic Proposal Conflict Notification	Notification shall be sent to the SRP chair and TTA group members whenever an available or Conflict relation is changed.	TTA-L0-18 Review
TTA-L1-93 CSR Initiation	Once all required individual reviews have been completed (including any required technical or data management reviews) and the scores are normalized, the SRP consensus review portion of the Science Review Interface shall be available.	TTA-L0-18 Review
TTA-L1-74 ISR Score Generation	Once all reviews for a given reviewer are complete the NORMALIZED SCORE shall be generated which yields a mean of 5 and a standard deviation of 2.	TTA-L0-18 Review TTA-L0-25.1 Double Blind Reviews

Name	Text	Derived From
TTA-L1-78 Score Modification	Only the SRP chair (and TTA Group members) is allowed to modify the SRP SCORE. Note it is permissible that other committee members must press the reload button to see the updated score.	TTA-L0-18 Review TTA-L0-25.1 Double Blind Reviews
TTA-L1-60 Author Information Visibility	Proposal author information should not be visible to SRP members at any time.	TTA-L0-25.1 Double Blind Reviews TTA-L0-18 Review
TTA-L1-44 DDT Solicitation Review	Proposals submitted for a DDT Solicitation are reviewed by a local observatory site committee, typically organized by the scheduler.	TTA-L0-25 Equitable and Fair Reviews TTA-L0-18 Review
TTA-L1-43 Semester Solicitation Review	Proposals submitted for a semester solicitation will be reviewed by a panel-based, dual-anonymous review process.	TTA-L0-18 Review TTA-L0-25 Equitable and Fair Reviews TTA-L0-25.1 Double Blind Reviews
TTA-L1-45 Special Solicitation Review	Proposals submitted for a "special" solicitation are not evaluated by the NRAO review process...but such reviews are handled outside of the TTA Tools and are therefore out of scope.	TTA-L0-25 Equitable and Fair Reviews TTA-L0-18 Review
TTA-L1-125 Update Score	SRP members may modify their NORMALIZED SCORE and have this reflected in the SRP SCORE.	TTA-L0-25.1 Double Blind Reviews TTA-L0-18 Review
TTA-L1-56 Proposal Access	SRP members shall only have access to proposals for which they are Available.	TTA-L0-18 Review TTA-L0-25 Equitable and Fair Reviews
TTA-L1-55 Review Process	The details of the review process vary depending on the proposal solicitation.	TTA-L0-18 Review
TTA-L1-58 Manual Proposal Conflict Identification	The first action of an SRP member, prior to viewing any proposals to identify potential conflicts of interest. The SRP member shall be provided with the PROPOSAL ID, the TITLE, and the ABSTRACT.	TTA-L0-18 Review TTA-L0-25.1 Double Blind Reviews
TTA-L1-86 Feasibility PDF Generation Options	The generation of the PDF for feasibility reviews should have the following options: (a) Full proposal. (b) Only the Allocation Request. (c) Only the ALLOCATION ID, PI, TITLE, and TECHNICAL JUSTIFICATION.	TTA-L0-18 Review
TTA-L1-62 ISR PDF Generation Options	The generation of the PDF should have the following options: (a) Full proposal. (b) Proposal Information content only. (c) Exclude FIELDS in the Allocation Requests.	TTA-L0-18 Review TTA-L0-25.1 Double Blind Reviews

Name	Text	Derived From
TTA-L1-77 CSR Score Generation	The NORMALIZED LINEAR-RANK SCORE shall be automatically computed by the system as $10R=n$ where R is the ordinal rank of the proposal based on the SRP Score (in ascending order) and n is the number of proposals reviewed by the Science Review Panel.	TTA-L0-25.1 Double Blind Reviews TTA-L0-18 Review
TTA-L1-76 Consensus Scientific Review	The panel-based review system requires that the panel discuss their individual reviews, which were performed independently, to form a consensus evaluation of the proposal; that is, a consensus scientific review. The outcome of the consensus scientific review is an SRP SCORE and comments both to the PI and internal comments. The TTA Tools shall provide the interface and functionality to help support the panel discussion.	TTA-L0-18 Review TTA-L0-25.1 Double Blind Reviews TTA-L0-25 Equitable and Fair Reviews
TTA-L1-82 Automatic Feasibility Conflict Identification	The software should prevent the assignment of a feasibility reviewer to a proposal for which they are an author.	TTA-L0-18 Review TTA-L0-25 Equitable and Fair Reviews
TTA-L1-71 Monitor Review Process	The SRP chair shall be able to monitor the status of the individual scientific review process. Specifically, to see if the reviewer is Conflicted or Available and to view the REVIEW TYPE and REVIEW STATE.	TTA-L0-18 Review TTA-L0-25.1 Double Blind Reviews
TTA-L1-57 Automatic Proposal Conflict Identification	The system shall automatically generate a conflict designation for a given reviewer for any proposal that: (a) The reviewer is an author of the proposal.	TTA-L0-18 Review TTA-L0-25.1 Double Blind Reviews
TTA-L1-68 Observatory Site Review Process	The system shall support an observatory site review process where a TTA member enters all information for the review.	TTA-L0-18 Review TTA-L0-25 Equitable and Fair Reviews
TTA-L1-67 Proposal Review	The system shall support multiple methods of proposal review, specified at the time of solicitation configuration.	TTA-L0-18 Review
TTA-L1-70 Individual Science Review	The system shall support the individual Science review process.	TTA-L0-25.1 Double Blind Reviews TTA-L0-18 Review
TTA-L1-69 Panel Review Process	The system shall support the science review panel process.	TTA-L0-25.1 Double Blind Reviews TTA-L0-25 Equitable and Fair Reviews TTA-L0-18 Review
TTA-L1-66 Proposal Review States	There shall be a concept of REVIEW STATE for each reviewer/proposal. The REVIEW STATES shall consist of Not-saved, Saved, Complete, Closed.	TTA-L0-18 Review

Name	Text	Derived From
TTA-L1-65 Proposal Review Types	There shall be the concept of REVIEW TYPE for each proposal/reviewer. The SRP chair shall assign a REVIEW TYPE for each proposal/reviewer. The review types consist of None, Primary, Secondary, or Tertiary. The default review type is None. The SRP chair should be able to re-assign the REVIEW TYPE at any time during the individual review stage.	TTA-L0-18 Review TTA-L0-25.1 Double Blind Reviews
TTA-L1-61 Proposal Display Options	To facilitate the review process, in addition to the online display of proposals they should be made available for SRP members and the TTA Group as: (a) Individual PDF files of each Proposal. (b) A tar file containing all of the individual Proposal PDF files. (c) A single PDF file containing all of the Proposals for the SRP.	TTA-L0-18 Review
TTA-L1-126 Consensus Comments	Two sets of consensus comments are recorded by the committee prior to the conclusion of the SRP Review. The COMMENTS FOR THE PI (which are also visible to TAC members) and the INTERNAL COMMENTS (which are only visible to TAC members).	TTA-L0-25.1 Double Blind Reviews TTA-L0-18 Review
TTA-L1-97 Feasibility Review Notification	When each type of feasibility reviews has been completed a notification should be sent to the TTA group.	TTA-L0-18 Review
TTA-L1-79 CSR Notification	When the consensus reviews for a given SRP are completed a notification should be sent to the TTA group.	TTA-L0-18 Review TTA-L0-25.1 Double Blind Reviews
Allocate		
TTA-L1-101 TAC Proposal View	A TAC member shall be able to view or download all proposals. There should be a way to filter by facility (e.g., download only files with an Allocation Request that contains the VLA), and proposal class (e.g., Large proposals).	TTA-L0-19 Time Allocation TTA-L0-25 Equitable and Fair Reviews

Name	Text	Derived From
TTA-L1-102 TAC Proposal Summary View	A TAC member shall be able to view or download summaries of each proposal. The summary should consist of the PROPOSAL ID, NORMALIZED LINEAR-RANK SCORE, SRP NAME, FACILITIES, PRINCIPAL INVESTIGATOR, CO-INVESTIGATORS, TITLE, ABSTRACT, PRELIMINARY PRIORITIES, COMMENTS FOR THE PI, and INTERNAL COMMENTS. There should be a way to organize these by facility and proposal class.	TTA-L0-19 Time Allocation TTA-L0-25 Equitable and Fair Reviews
TTA-L1-103 TAC Facility Report View	A TAC member shall be able to view or download the report for each facility which includes the LST (or GST) pressure plot.	TTA-L0-19 Time Allocation TTA-L0-25 Equitable and Fair Reviews
TTA-L1-105 Super TAC Meeting Comments	A TTA Group member shall be able to enter COMMENTS FOR THE PI, and INTERNAL COMMENTS stemming from the SUPER TAC Meeting into the TTA Tools using the UI or by file import.	TTA-L0-19 Time Allocation TTA-L0-3.2 HSA TTA-L0-3.4 GMVA
TTA-L1-104 TAC Comments for the PI	A TTA Group member shall be able to enter COMMENTS FOR THE PI, and INTERNAL COMMENTS stemming from the TAC Meeting into the TTA Tools using the UI or by file import.	TTA-L0-19 Time Allocation TTA-L0-25 Equitable and Fair Reviews
TTA-L1-107 TAC Testing	For testing purposes there shall be a mechanism to automatically generate Allocation Dispositions for each Allocation Request.	TTA-L0-19 Time Allocation
TTA-L1-100 Special Solicitation Allocate Process	Special solicitations in support of sponsored time require creation of dispositions by the local schedular. The software shall support this activity.	TTA-L0-19 Time Allocation
TTA-L1-98 Panel Allocate Process	The software shall support a panel-based allocation process (informally known as the TAC process).	TTA-L0-19 Time Allocation TTA-L0-25 Equitable and Fair Reviews
TTA-L1-99 Observatory Site Allocate Process	The software shall support an observatory site allocation process, where the director (or designee) determines the allocation disposition.	TTA-L0-19 Time Allocation
TTA-L1-108 Create Allocation Disposition	There shall be an interface for a TTA Group member to create an Allocation Disposition.	TTA-L0-19 Time Allocation TTA-L0-4 Allocate telescope time
Approve		

Name	Text	Derived From
TTA-L1-114 Director's Review Report	A TTA Group member is responsible for producing a Director's Review report which is based on all proposals, the NORMALIZED LINEAR-RANK SCORE, and the Allocation Dispositions. The TTA Tools shall generate various metrics (tables and plots), and csv-formatted spreadsheets that will be included with the report.	TTA-L0-22 Directors Review and Time Award TTA-L0-4 Allocate telescope time
TTA-L1-113 Edit Allocation Disposition	A TTA Group member must be able to alter any Allocation Disposition.	TTA-L0-22 Directors Review and Time Award TTA-L0-4 Allocate telescope time
TTA-L1-109 Generate CVS Spreadsheet	For each facility a csv-formatted file by shall be generated that lists: ALLOCATION REQUEST ID, PRINCIPAL INVESTIGATOR, NORMALIZED LINEAR-RANK SCORE, REQUESTED TIME, and APPROVED TIME for each SCHEDULING PRIORITY (A, B, C [filler], F [fixed], and N [rejected]).	TTA-L0-22 Directors Review and Time Award
TTA-L1-110 Generate Metrics	For each facility the following statistics shall be generated: the number of proposals submitted, approved (priority A, B, F), filler (C), rejected (N), and oversubscription (submitted/approved); and by proposal hours: the requested time, the available time, the approved time (priority A, B, F), filler time (C), rejected time (N), and the pressure (requested hours/available hours).	TTA-L0-22 Directors Review and Time Award TTA-L0-8.1 Metrics Data TTA-L0-8.2 Calculated Metrics TTA-L0-8 Support Observatory Metric Analyst
TTA-L1-112 Allocation Disposition Testing	For testing purposes there shall be a mechanism to automatically approve each Allocation Disposition. A TTA Group member shall be able to either approve all dispositions or to randomly approve dispositions.	TTA-L0-22 Directors Review and Time Award
TTA-L1-111 Panel Review Process Allocation Disposition Approval	There shall be a mechanism for a TTA Group member to approve each Allocation Disposition based on results from the Director's Review.	TTA-L0-22 Directors Review and Time Award TTA-L0-25.1 Double Blind Reviews
TTA-L1-115 Observatory Site Review Allocation Disposition Approval	There shall be a mechanism for the Director's Delegate to approve each Allocation Disposition.	TTA-L0-22 Directors Review and Time Award TTA-L0-4 Allocate telescope time
Close		
TTA-L1-119 Send Dispositions	A TTA group member shall also be able to send the dispositions either in bulk (e.g., semester solicitations) or one at a time (e.g., DDT solicitations).	TTA-L0-22 Directors Review and Time Award

Name	Text	Derived From
TTA-L1-123 Edit Disposition Text	A TTA Group member shall be able to edit the disposition text.	TTA-L0-22 Directors Review and Time Award
TTA-L1-118 TAC Report	For a semester solicitation a TTA Group member needs to produce a TAC report which summarizes the results of the TAC recommendations (after any adjustments made by the Director). The TTA Tools shall produce metric statistics (tables and plots) that are required in the TAC report.	TTA-L0-22 Directors Review and Time Award
TTA-L1-117 Observatory Site Review Outputs	The observatory review process shall produce a binary recommendation, comments for the PI, and internal comments.	TTA-L0-22 Directors Review and Time Award
TTA-L1-116 Panel Review Process Outputs	The panel review process shall produce a normalized linear rank, and comments both for the PI and internal.	TTA-L0-22 Directors Review and Time Award
TTA-L1-120 Observatory Site Review Dispositions	The TTA Tools shall generate a template disposition for the given DDT proposal that can be modified and sent by a TTA Group member.	TTA-L0-22 Directors Review and Time Award
TTA-L1-121 Generate Disposition Letter	The TTA Tools shall generate a template disposition letter for each proposal that can be reviewed and modified by a TTA Group member.	TTA-L0-22 Directors Review and Time Award
TTA-L1-124 Make Allocation Dispositions Public	There shall be a mechanism for a TTA Group member to make the approved Allocation Dispositions public in the archive. Either for a given proposal or for all proposals within a semester solicitation.	TTA-L0-22 Directors Review and Time Award
TTA-L1-122 Disposition Template	There shall be a mechanism to generate a template disposition, either for a specified proposal or for all proposals within a semester solicitation.	TTA-L0-22 Directors Review and Time Award
Create Projects		

Name	Text	Derived From
TTA-L1-127 Observing Project Creation	The TTA Tools system must support the creation of observing projects for each allocation request with positive disposition in a format appropriate for each facility.	TTA-L0-24 SRDP TTA-L0-5 Support SRDP Operations TTA-L0-6 Support novice observer TTA-L0-7 Observing Prep Software Interface TTA-L0-9 Simplify Proposal and Observing Process TTA-SRDP-7 Support for Combined Products TTA-SRDP-8 Opt out of SRDP Calibration TTA-SRDP-9 Required Information TTA-SRDP-10 Image Product Specification TTA-SRDP-10.1 Opt out of SRDP Images TTA-SRDP-10.2 Parameterization TTA-SRDP-10.2.1 Spatial Resolution TTA-SRDP-10.2.2 Spectral Resolution TTA-SRDP-10.2.3 Multiple Phase Centers TTA-SRDP-10.3 Multiple Executions TTA-SRDP-11 Time Critical Processing TTA-SRDP-11.1 Critical Product Specification TTA-SRDP-11.2 Observing Restrictions TTA-SRDP-7.1 Display of related observations. TTA-SRDP-7.2 Consistency of observation. TTA-SRDP-7.3 Ratio of Observing Times
Non-Functional Requirements		
TTA-L1-11 Configurability	The TTA system must use configuration files, interfaces, services, agents, etc to avoid hard coded values.	TTA-L0-28 Review Configuration TTA-L0-21 Solicitation