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# CTA-N Short Project Civil Concept Design – Internal Review Plan

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Review date: Tuesday 18<sup>th</sup> December 2018  
Bologna

<b>Prepared by:</b>		
<b>Names(s) and Signatures(s)</b>	<b>Organisation</b>	<b>Date</b>
D. Bristow	CTA PO	05-11-2018
<b>Approved by:</b>		
<b>Names(s) and Signatures(s)</b>	<b>Organisation</b>	<b>Date</b>
Wolfgang Ansorge		
<b>Released by:</b>	<b>Organisation</b>	<b>Date</b>
<b>Names(s) and Signatures(s)</b>		

## Change Record

Ver.	Date	Affected Section(s)	Change request No.	Reason/Initiation/Remarks
A1	05/11/2018			1.0 Draft

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# 1 Scope of the Project Review Plan

The scope of the internal 'Project Review Plan' for the CTA-N Infrastructure project is to ensure all the technical information is captured for the CTA-N Short Project. The purpose of the internal review is to coordinate and finalize the technical documents that will be presented to the IAC as the inputs for the CTA-N 'Short Project' detailed design contract at the Observatorio del Roque de los Muchachos, on the island of La Palma in Spain.

The objective of the **Internal Reviews** are to collect feedback for:

- Civil Infrastructure Requirements
- Civil interfaces for LST, MST and ACE equipment
- Scope of the CTA-N Short Project
- Design Risk Engineering
- Advantages or disadvantages of the project scope with reference to further phases of the project (regarding schedule, cost, quality, both for implementation and operations and maintenance)

## 2 Contacts for the Project Review

- Stephen Brown, Design Coordinator, CTAO.  
[stephen.brown@cta-observatory.org](mailto:stephen.brown@cta-observatory.org)
- David Bristow, Infrastructure Design Coordinator, CTAO.  
[david.bristow@cta-observatory.org](mailto:david.bristow@cta-observatory.org), Ph: +49 6221 516 385

## 3 Documentation to be submitted for the Review

- Infrastructure Requirements
- Project scope of work document and drawings
- Interface Management Plan – IMP
- Interface Control Documents – ICD
- CTA-N Concept Drawings
- Design and Construction Risks
- Any documentation that demonstrates that the requirements have been met.

## 4 Decision Making Authority

The CTAO Project Manager will have the Final Decision over the review panel results and recommendations.

## 5 Participants in the Review

The following staff will form the review working group:

- 1) Presenters
- 2) Review Panel
- 3) Observers

<b>Presenters</b>	<b>Name</b>	<b>Organisation</b>
Infrastructure Requirements	David Bristow	CTAO
Project Concept Planner	David Bristow	CTAO
Interface Coordinator	Stephen Brown	CTAO
Risk Engineering - Design	Cesar Ocampo	CTAO
Infrastructure WBS and PBS	Cesar Ocampo	CTAO
Project Schedule	Cesar Ocampo	CTAO

<b>Review Panel</b>	<b>Name</b>	<b>Organisation</b>
Int. reviewer 1 Systems Engineering	Wolfgang Ansorge	CTAO
Int. reviewer 2 Safety Systems	Karl Tegel	CTAO
Int. reviewer 3 RAM	George Pruteanu	CTAO
<b>Chairperson of the Review Panel</b>	<b>Name</b>	<b>Organisation</b>
Infrastructure Design Coordinator	David Bristow	CTAO

<b>Observers</b>	<b>Name</b>	<b>Organisation</b>
Interfaces Manager	Chiara Montanari	CTAO
Requirements Manager	Olivier Schurr	CTAO

<b>Decision Making Authority</b>	<b>Name</b>	<b>Organisation</b>
Project Manager CTAO	Wolfgang Wild	CTAO

## 6 Roles of the participants

Presenters will be responsible for:

- deliver the documentation to the panel chair according to the schedule in this document.
- present the relevant information needed to comply with the objectives of the review
- comply with the agenda.
- answer the questions and consider the feedback and recommendations that the review will give as outcome.

Review panel members will be responsible for:

- Review the submitted documentation.
- Identify problems or request explanations.
- Attend the review.

Chairperson of the Review panel will ensure:

- facilitate that the participants can give their feedback
- register the minutes and action points.
- summarize the conclusions of the review panel, to the questions in Section 8. This discussion will take place in the review meeting (Agenda in Section 9) ensure that the final review report is delivered.

Observers will ensure:

- Will be able to participate in the meeting, making questions and giving feedback.

Additional observers may attend to the review with the permission of the review chairperson.

## 7 Review Venue

The Venue for the review will be Bologna. To be held on the 18<sup>th</sup> December 2018.

## 8 Review schedule

Week	Date	Activity	Responsible	Status
W 1	Nov	Approve Review Plan/ appoint chairperson	WA, DB	comp
W 1	Nov	Define/ Invite reviewers	WA, DB	comp
W 1	Nov	Logistics: coordinate place for the Review	WA, DB	comp
W 2	15.11.18	Prepare and submit documentation	SB, DB	On-going
W 3-4	16.11.18 – 23.11.18	Reviewers may submit questions to chairperson	Review Panel	Not started
W1-5	30.11.18	Presenters prepare answers and presentation and submit to review panel	SB, DB	Not started
W 6	18.12.18	Review day - presentation and discussion	all participants	Not-started
W 9	11.01.19	Distribution of minutes, Action Items, and Final Review report	Chairperson	Not-started

## 9 Questions to be answered by the Review Panel

1. Have the Civil Infrastructure Requirements been defined? Are they complete?
2. Have all Civil interface been defined? Are they complete?
3. Are the Requirements verifiable for the LST, MST and ACE equipment?
4. Have RAMS requirements been defined?
5. Has design and construction hazards been identified? SHE (Safety, Health and Environment) requirements been defined?

Besides requirements, do you foresee any risk associated with the following. Considering both implementation and operation & maintenance:

- Schedule
- Cost

- Quality
- scope
- Technical

## 10 Agenda for the Review meeting

Time	Duration	Topic of the presentation	Presenter	Purpose
9:00 - 9:10	10 mins	Welcome by the Chairperson	David Bristow	Welcome - present the agenda for the day and the outcome expected for this review
9:10 – 9:30	20 min	Infrastructure WBS and PBS	Cesar Ocampo	
9:30 – 9:45	15 mins	Discussion		
9:45 – 10:05	20 mins	Infrastructure Requirements	David Bristow	
10:05 – 10:20	15 mins	Discussion		to present the document distributed in advance, and answer the questions from the review panel
10:20 – 10:40	20 mins	Scope of the CTA-N Short Project	David Bristow	
10:40 – 10:55	15 mins	Discussion		
<b>11:00 – 11:20</b>	<b>20 mins</b>	<b>Coffee Break</b>		
11:20 – 11:40	20 mins	Interface Management Plan	Stephen Brown	
11:40 – 11:55	15 mins	Discussion		
11:55 – 12:15	20 mins	Risk Management Plan	Cesar Ocampo	
12:15 – 12:30	15 mins	Discussion		
12:30 – 12:50	20 mins	LST Interfaces	Stephen Brown	to answer the questions from the review panel
12:50 – 13:10	15 mins	Discussion		
<b>13:10 – 14:10</b>	<b>60 mins</b>	<b>Lunch</b>		
14:10 - 14:30	20 mins	MST Interfaces	Stephen Brown	to present the document distributed in advance, and answer the questions from the review panel
14:30 – 14:45	15 mins	Discussion		
14:45 - 15:05	20 mins	ACE Interfaces Presentation	Stephen Brown	
15:05 – 15:20	15 mins	Discussion		
15:20 – 15:40	20 mins	Project Schedule	Cesar Ocampo	
15:40 – 16:00	20 mins	Discussion		
16:00 - 16:20	20 mins	Open Points Discussion		

## 11 Appendix: Material for the Review to be submitted by Nov 15th 2018.