

## Checkpoint Requirements

### Introducing Checkpoints!

In terms gone by, there has been a problem faced by teams: they break into a strong rhythm of getting research done only to run into a RD brick wall that greatly halts progress on analysis and processing. Deliverable RDs take a long time to get edited by both PC and node Fellows, and doesn't ultimately matter later in the end of the term. In order to fix this problem, we are removing the project summary RD and replacing the tech paper and presentation RD with a new idea: *checkpoints*! Sections of the TP and presentation will be due incrementally when a team will actually have most of the work of that section done. The checkpoints will serve as a concrete project timeline for teams and should save time.

We understand that sometimes the project may not fit these checkpoints exactly. As a result, we want the content turned in at each checkpoint to be mostly finalized. Content should be concrete yet flexible to updates and different turns of the project. Don't fill out content just to have something there. Put only what is mostly finalized. It is better for the section to be minimal or empty than have content that is just going to completely change.

Finally, the actual submission of each of these checkpoints will look slightly different. Instead of submitting a document for each checkpoint, teams will work on a centralized folder and the PC editors will take a look at it. Whenever they have completed a section, teams will leave a comment on the completed section 'tagging' the PC POC to look over their work. For a timeline of what checkpoint is due when see below. Checkpoints will be *due on Thursday COB* of each week and will be sent back to the teams on Tuesday COB the following week.

## Tech Paper

(Additionally, See tech paper template for more detail on each required section)

### **TP Checkpoint 1 - 2.1 Background & 2.2 Partners & Objectives (week 3)**

For this checkpoint, teams should be wrapping up their literature review. In these sections of the tech paper, we need most everything from the template (description of study area and problem, scientific basis of methods with citations, partner information (who they are, what they do, whether or not they use remote sensing), project objectives (end products and questions you set out to answer)). The only thing that is not hard due here from the template is the study area map and time period (since they are often subject to change later in the term). The study area visualization may be more easily done with map creation. The time period can change if you remove or add EOs. If you can do these now it will be helpful, but if you want to hold off on this, just denote where these will be (i.e., "We analyzed the region from ##### to ##### using..." or "\*Study area map to be inserted here\*")

### **TP Checkpoint 2 – 3.1 Data Acquisition (week 5)**

By this point teams should have a handle on EO's they are using, time periods, acquisition methods, etc. We want this entire section and **EO citations in the references section** filled out. This one shouldn't take

too long as this section is pretty straightforward. It is ok to make updates and add EOs/other datasets in the future, but try to have this as filled out as possible.

### **TP Checkpoint 3 – 3.2 Data Processing, 3.3 Data Analysis (week 6)**

By the point, teams should have a solid understanding of their methods of processing and analyzing data, even if it is not fully complete. Remember, data processing is what is done in order for the data to be usefully readable/seeable (i.e., cloud cover filtering, resizing, etc.) and data analysis is what is done to the data to finally answer the question you set out to answer (i.e., any statistics, validation efforts, etc.). In this checkpoint we want to see everything you concretely have on your processing/analysis efforts written out as finalized as possible.

### **TP Checkpoint 4 – 4.1 Analysis of Results, 1.0 Abstract (week 7)**

By this point, teams should strive to have some concrete results with a good indicator of what they mean. For this checkpoint, we want to see as many final visualizations that will go in the tech paper and what they mean both scientifically (i.e., “45% of the region was scarred in the wildfire”) and in terms of community concerns & project objectives. What errors did you have, and what uncertainty is there in your results?

Once this is done, teams will have all the pieces to write an abstract. We will need a draft of the abstract so we can finalize it for the poster FD due during week 8. This shouldn’t take too long as it just a simple summary of the project (brief background on the problem, the methods used to tackle the problem, and what the final results and conclusion on it is). This can serve as a great project goal from the start of the term (“We as a team will have our abstract created by week 7.”)

Finally, if not already done, teams should try to have their entire methodology section (section 3) completely finalized.

### **TP Checkpoint 5 – 5.0 Conclusions, 4.2 Future Work, Errors/Uncertainties, & Other Visualizations (week 9)**

In this checkpoint, teams should just about have their conclusions wrapped up. This week is busy, but we need conclusions to be as final as possible. What was the sum total of your project? What is the final answer to the questions you set out to answer? By this checkpoint the teams will have a working draft of every body-section of the tech paper. The rest of the term can be spent cleaning up sections and making all of the sections flow cohesively.

All Tech Paper visualizations in the body of the paper (i.e., study area and results images/maps) should be in the tech paper at this point if they are not already.

### **TP Checkpoint 6/Final Draft – 7.0 Glossary, 6.0 Acknowledgements, 9.0 Appendices, 8.0 References (week 10)**

This checkpoint is the calmest one, all of the non-content sections should be *complete and polished*. Much of this is copy/paste or should be already done. Quick note on the glossary, this should not be solely acronyms. For this, go back through what you have written and put a definition for every word that is technical jargon, area specific, or an acronym. If in doubt, put it in the glossary. Hurray! Every section of the paper is now done.

## Presentation

### **Presentation Checkpoint 1 - Study Area, Study Period, Objectives, Partners, Comm Concerns (week 3)**

This checkpoint goes in tandem with Tech Paper Checkpoint 1. In this, we should have preliminary slides on Study Area, Study Period, Objectives, Partners, and Community Concerns. In this we understand that this may require some visualizations/partner media. If that is not in hand it is ok to put in *\*partner image here\**. We mostly want a layout and content.

### **Presentation Checkpoint 2 - Satellites, Methods (week 6)**

This checkpoint goes in tandem with Tech Paper checkpoints 2 & 3. Here, we need as final as possible slides on methods and EO's.

### **\*\*Presentation Checkpoint 3 - Results, Errors/Uncertainties (week 7)\*\***

This checkpoint goes in tandem with Tech Paper checkpoint 4. Here, we need as final as possible slides on results and errors/uncertainties. ***\*\*This is an optional checkpoint. If you would like this to be reviewed, contact your PC POC via teams or a 'tag' on the presentation file.*** \*\* If you elect to not complete this checkpoint, this section will be with the FD the next week.

### **Presentation Checkpoint 4 - Future work, Conclusions, Acknowledgments, and other visualizations. (week 8)**

This is the last checkpoint. Here, we need final slides on Future work, Conclusions, and Acknowledgements, and ***all slides buttoned and polished***. This is going to serve as the presentation FD due date.

## Creative Communications Deliverable

### **Checkpoint 1 - Outlined Ideas, Questions for Comm Team (Week 8)**

This is the only checkpoint for creative communication deliverables and it is required for all types of CC deliverables. This checkpoint serves as an opportunity for you to check in with the Comm Team about your progress toward a FD and vice versa. At this point, teams creating videos should have begun incorporating feedback and edits from the Comm Team. Teams creating any other type of CC deliverable should have outlined the points they want to cover and the conceptual ideas for presenting the project.

All teams are also encouraged to leave comments and questions for the Comm Team throughout their deliverable.

### **Final Draft - (Week 9)**

Simple enough – this is your final, polished draft of your creative communication deliverable. All questions you had for the Comm Team were answered earlier this week following last week's checkpoint and you've incorporated all feedback into a superb public-facing deliverable. If there are any final edits, the Comm Team will be in touch during the first few days of Week 10

## **Tutorial & GitLab Checkpoint Documentation**

### **Tutorial Checkpoint 1 - (Week 5)**

*The tutorial checkpoint is required only for teams creating code tutorials. If your team is generating a GIS-only tutorial and will not include any code, you may skip this checkpoint and work towards your tutorial final draft submission.*

For this checkpoint, you will be submitting your current tutorial draft with your Geo contact person for review. This checkpoint should include the following completed sections: Overview, Set up & Requirements (such as software and IDE), and a Breakdown of the Logic and Methods. Methods, should include a general outline of your planned sub-sections that are relevant to your project as well as completed sub-sections where possible. We understand your methods, may not be fully figured out yet, so focus on some of the early methods sub-sections, where you can start to add initial steps! This checkpoint should demonstrate understanding of the code Do's and Don'ts.

### **GitLab Checkpoint 1 - (Week 7)**

For this checkpoint, teams should update their GitLab project repository with their most up-to-date script(s) and a README.md document. Review the DEVELOP\_ReadMe\_Template found in your project repository. Teams can use either the GitLab GUI or Git Bash to upload code. If participants have any issues updating their GitLab repository, they should reach out to their node Fellow and the Geo team.