**NASA DEVELOP National Program**



Team Location (ex. NASA Stennis Space Center)

*Summer 2016*

Short Title (Location + Main App Area)

Longer sub-title (ex. Synthetic Aperture Radar Data Decision Support for Atlantic Blue Fin Tuna Population Assessment and Management in the Gulf of Mexico)

 **Technical Report**

Rough Draft – Feb 18, 2016

Author 1 (Project Lead)

Author 2

Author 3

Author 4

Advisor 1, Affiliation (Science Advisor)

Advisor 2, Affiliation (Science Advisor)

Previous Contributors:

Contributor 1

Contributor 2

# 1. Abstract

[Placeholder - do not put anything here until the final draft submission. The abstract in the project summary is where the working draft of the abstract should “live”]

**Keywords**

Insert here 2-8 keywords that relate to your project

Example: Remote Sensing, Biomass Burning, Erosion, Sea Level Rise, etc.

# 2. Introduction

Including the items listed below; write a synopsis of the following information. Be concise. Word count should be between 200-800 as one to two pages should suffice.

* 1. ***Background Information***

Things to include (in whatever order you think flows best): **Background Information** - Relevant information to inform the reader of current status, issues, previous studies, etc/ **Study Area** - Describe the geographic location of the study/ **Study Period** - Explain the time period of data you are looking at (years and dates of data)

* 1. ***Project Partners & Objectives***

Things to include (in whatever order you think flows best): **National Application(s) Addressed** - Explain which NASA national application areas this project addresses and how it contributes to them/ **Project Partners** - Explain who the project partners are, why they are interested in this project, how they will use it, what decision making they have to do and is being addressed with this research and methodologies, etc. How will they benefit from this project and methodology?/ **Project Objectives** - These should be short decisive action items)

# 3. Methodology

This should be the focus of the paper - concise, yet explanatory, and highlight the NASA Earth observations utilized and its/their capabilities. Include a paragraph or more for each of the following items. No word cap, but be thoughtful and keep it in the two to six page range.

***3.1 Data Acquisition***

What data did you get, what level products are they, for what dates did you get images, where did you get the images from, etc.

***3.2 Data Processing***

What did you do to the data? Were there conversions needed to be able to analyze it? Did you have to mosaic images? Did you have to normalize anything to fit other datasets? Did you run an NDVI, change detection, etc?

***3.3 Data Analysis***

How did you analyze the data? What methods did you use?

# 4. Results & Discussion

Insert images, graphs, maps, charts, etc. here. Choose the most important results to highlight here. No word cap, but two to six pages is a good range.

***4.1 Analysis of Results***

What can you tell from your graphs, images, etc? What does this mean for your project?

What factors could you not account for? Include an error analysis; what things didn’t work out like you expected they would, etc.

***4.2 Future Work***

If this project was to be selected for another term, what would be the focus? What other areas would be of interest?

# 5. Conclusions

Final conclusions. Word count: 200-600 (~a page).

# 6. Acknowledgments

Insert here. Keep to a concise paragraph or bullets of names. End with the following sentence.

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Aeronautics and Space Administration.

This material is based upon work supported by NASA through contract NNL11AA00B and cooperative agreement NNX14AB60A.

# 7. References

Insert references here. Only include articles/content cited in the body of text above. It’s great if you read many other articles, but they should not all be listed here unless they are being cited in this report.

References should be in APA formatting:

<https://owl.english.purdue.edu/owl/resource/560/01/>

Citation in text: Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text.

Web references: As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

# 8. Content Innovation

Please select three content innovation features to support your paper. For each item, please list the name of the feature, and include the tool itself if possible (e.g. glossary terms and definitions). If the tool does not work in Microsoft Word (eg. Glossary Viewer), please list the file name and email the related file to the Lauren Gleason-Childs (Lauren.M.Childs@nasa.gov).

**Some options include:**

AudioSlides

Featured Author Videos

Featured Multimedia for this Article (video and podcast options)

Glossary Viewer

Inline Supplementary Material (figures, tables, etc.)

Interactive Map Viewer

**Content Innovation #1**

Audio Slides

Emailed to Lauren.M.Childs@nasa.gov with filename 2016Sum\_LaRC\_EvergladesEco\_TechPaper\_AudioSlides

**OR** shared through Google Drive at: <https://goo.gl/u49jps>

**Content Innovation #2**

Glossary Viewer (Should be alphabetical)

* Confirmed Dengue Fever Cases **-** The CDC Dengue Branch tracks and monitors reported dengue cases and confirms these cases through laboratory testing.
* Earth Trends Modeler **-** TerrSet also contains the ETM module which enables the user to examine environmental variability based on user-defined time periods and time steps.
* Hydrologic Unit Code (HUC) **-** Boundary layers that delineate watersheds and other hydrological based land features. The higher number designated to a HUC, the more narrowly refinements are established in a feature.
* Etc.

**Content Innovation #3**

Inline Supplementary Material

* (List figure/ table numbers here)
* (List figure/ table numbers here)
* (List figure/ table numbers here)

# IV. Appendices

Insert here