

NASA DEVELOP National Program

Fall 2019 Deliverable Checklist

General Style Notes (for all or most deliverables)

- Use the correct filename: “YearTerm_NODE_ProjectShortTitle_DeliverableType_Draft”
⇒ 2019Fall_LaRC_NewYorkCityUrban_ProjectSummary_FD
- Use the correct formal node name for each deliverable (e.g. Alabama – Marshall, Colorado – Fort Collins).
 - Note that this dash is an “en dash”, i.e. a longer dash than the one located on your keyboard.
- The first letter of each word in the title, subtitle, and VPS title are capitalized (APA title case).
- The short title should be a combination of the study area and application area. If the project is a continuation, ‘II’ or ‘III’ should also be included.
- **Do not double space after periods!!**
- Do not use slash marks within a sentence. They are fine to use in a list if necessary.
- Semicolons should be used to separate two independent clauses (meaning they are both complete thoughts and the semicolon could be replaced with a period).
- Use “i.e.” (meaning “that is”) to give further explanation of something. Use “e.g.” (meaning “for example”) to give a few examples, not a complete list.
- NASA’s EOS ([Earth Observing System](#)) is a system sub-set of NASA missions focused on specific areas of climate science. Not all NASA satellites (and therefore not all of the satellites used by DEVELOP projects) are in the EOS. It is generally best to avoid using the term “EOS” in deliverables. Using “Earth observations” or “EO” is usually sufficient.
- Consistency is key!
 - Capitalization – for example, in the Earth observations section of the Project Summary, if one parameter is capitalized, the rest should be capitalized
 - Pronouns – “we”, “the/our team”, or “the project team” are good options
 - When writing Earth observations, compare satellite and sensor formats. For example, if you write “Landsat 8 OLI” (satellite & sensor), don’t just write “Sentinel-2” (satellite).
- If you used ESA data, the following legal statement must be included within ALL of your deliverables:
⇒ This material contains modified Copernicus Sentinel data (insert year), processed by ESA.
- When resubmitting a deliverable, **highlight changes made to the original version** in yellow or with a comment.

Abstract

Purpose: *While not a separate deliverable, the abstract appears in the Project Summary, Tech Paper, and on the Poster. It is a short summary of your project that introduces the problem, partners, NASA EO, results, and significance. It is also used on your project page on the DEVELOP website.*

- This section should be 150-250 words and only one paragraph.
- Write in past tense and avoid passive voice.
- Acronyms should be spelled out the first time they are used in the abstract, and then also the first time they are used in the text.
- There should be no citations in the abstract.
- Include the NASA EOs that were used and the partner organizations with whom you partnered.
- Any changes made to the abstract should be reflected in your final in the Project Summary.
 - If you need to make changes to your abstract *after* you’ve submitted the Project Summary FD, send any updated versions to the Project Coordination team and ensure that the updated version is used on any subsequent deliverables and on your project page on DEVELOPedia.

Commented [ZB1]: BEWARE!!! Deliverables written in google docs **must be reformatted in Microsoft Word or PowerPoint** before submission. **DO NOT** convert a google doc back into a Microsoft file! You must copy/paste all content directly onto the templates below. Google docs (including spreadsheets and slides) are not compatible with Microsoft Office. They will not download with the appropriate template specifications!

Commented [ZB2]: Use this for EVERYTHING! (all required and optional deliverables and any separate attachments - images, etc.)

• **Node Acronyms:** ARC, AZ, CO, GA, GSFC, ID, JPL, LaRC, MA, MSFC, NC

• **Project App Area Short Hand:** - Ag, Disasters, Eco, Energy, HealthAQ, TI, Urban, Water

• **Draft:** Either RD (rough draft) or FD (final draft)

Version: If you need to submit a 2nd or 3rd version of a draft, add _v2 or _v3 at the end

Commented [ZB3]: Using these pronouns also makes it easier to write in active voice rather than passive voice (which we try to avoid).

Project Summary

Purpose: *The Project Summary is your go-to document for project information. The content in this document is compiled for reporting to NASA HQ and is often shared with future teams, partners, and the Capacity Building and Applied Sciences Programs. You can use this to complete your project page on DEVELOPEdia.*

- The formatting for each section should match the template:
 - All text is Garamond, 11-point font.
 - Science advisor affiliations are in parentheses.
 - Bullets are used for the Community Concerns, Project Objectives, Ancillary Datasets, Modeling, Software & Scripting, and Handoff Package sections.
- Word counts:
 - Project Synopsis: 80-100 words
 - Transition Plan, Software Release Plan, & Project Continuation Plan: 100 words max (each)
- Change “(s)” for any given section.
 - For example, “National Application Area(s) Addressed” on the template should read either:
 - ⇒ National Application Area Addressed: Application Area 1
 - ⇒ National Application Areas Addressed: Application Area 1, Application Area 2
- When choosing keywords, do not include words listed in your project title. Think of words or phrases that are specific to your project and could be used in search engines. Only capitalize any acronyms or proper nouns. Do not capitalize the first term if it is not a proper noun.
- List each state in the study area section with its postal acronym.
 - ⇒ Western shore of Lake Michigan bordering WI, IL, and IN
- If working on a seasonal project, include study period months.
 - ⇒ 2016 to 2018 (June through September)
- For the Community Concerns, all the points should be in complete sentences and have periods.
- For the Project Objectives, points do not need to be complete sentences or have periods. They do need to match the objectives written in your presentation and poster.
- For the partner organizations table, list end users first.
 - Every partner is either a collaborator or an end user, but not both.
 - Boundary organizations are also listed as either a collaborator or an end user, and the notation for boundary organization is at the end of the listing.
- For DEVELOP purposes, include NASA, European Space Agency, NOAA, or commercial airborne/satellite platforms in the **Earth Observations** table.
 - Other data or imagery, such as LiDAR/UAV from a partner or other agency, NAIP imagery, and multi-satellite modeled products (i.e. NASA’s MERRA-2), should be listed in the Ancillary Data section. Note: This list is not inclusive.
- Know your data sources. For published ancillary datasets, list the *original source* for Creator Organization (i.e. person/organization who actually created the dataset) followed by the formal dataset name. This may require you to look at metadata or product websites to find this information.
- Check the [Nomenclatures](#) page on DEVELOPEdia for correct Partner, EO, Dataset, Model, and Software names. If you can’t find what you are looking for, let the PC team know so we can add it to our master list!
- Cross-check your EOs: All Platforms & Sensors listed in the **Earth Observations** table must be included in the “Earth Observations Used” column of the **End Products** table.
- Make sure that the “Software Release Category” column in the End Products table is answered.
- Delete “Software Release Plan/POC” and “Project Continuation Plan” sections from the “Project Handoff Package” section if not applicable.

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Tech Paper

Purpose: *The Tech Paper provides the technical details for partners and future DEVELOP teams to replicate and understand your project analyses. It fully explains the problem, provides a scientific basis for your methodology, and thoroughly explains your results and what they mean for your project partners. It can even act as a foundation for a future publication.*

- The formatting for each section should match the template:
 - All text is Garamond, 11pt font
 - Science advisor affiliations are in parentheses
 - The subtitle is not italicized
 - Text is left justified throughout the document.
 - Heading levels are consistent.
- Word counts:
 - Keywords: 2-8 words
 - Introduction section: 500-800 words
 - Methodology section: 2-6 pages
 - Results and Discussion section: approximately 2-6 pages
 - Conclusions: 200-600 words
- The entire tech paper (everything before the references & appendices) should be no longer than 12 pages.
- Write in past tense. Here are examples in the past passive and past active voice:
 - **Past passive:** Three 2-L samples **were taken** at a depth of between 0.1 and 0.5 m at the down-wind end of each wetland.
 - **Past active:** Each of the three groups **took** 2-L samples at a depth of between 0.1 and 0.5 m at the down-wind end of each wetland.
- Each paragraph should have at *least* three sentences.
 - You don't need a separate paragraph for each data source under the *Data Acquisition* section. Group content together so you have substantive content.
- Spell out acronyms the first time they are used in the text, even if they have also been spelled out in the abstract.
- Only capitalize proper nouns. For example, do not capitalize phrases like “random forest” or “generalized linear model.” Additionally, most species common names are not capitalized.
- Caption all figures and charts according to the template examples and make sure to **reference all figures and charts within the text**.
- Figures can be grouped. Text and map elements do not have to be separate. However, text must be large enough and clearly legible (no blurry text).
- **A minimum of 5 references is required for the introduction section** (e.g. information about your focal species, habitat, or problem, scientific basis for your methods, etc.).
- Consider including an Earth observations table in the *Data Acquisition* section if you have multiple data sources.
- Be specific in why you did particular methods – don't leave the readers hanging. Are you answering “The Five Ws” (who, what, when, where, & why)?
- Number equations and reference them within the text.
 - The equation number should be right aligned and the equation itself should be middle aligned.
 - Garamond font – find *Normal Text* on the left side of the *Equation Tools* tab
- **Conclusions** should summarize the main findings and major implications of the study. Things like “We made a map” are not proper conclusions. What does the map show and what does that mean to your question and your partners?
- Include the NASA legal statements at the end of the acknowledgements section. Here they are again in case you removed them:

Commented [ZB4]: Writing engaging and meaningful conclusions can be tricky. Consult with your Fellow or the PC Team if you need further guidance!

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- ⇒ 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 NNL16AA05C.
- Copernicus Sentinel data acknowledgement, if used:
 - ⇒ This material contains modified Copernicus Sentinel data (insert year), processed by ESA.
- The references section is formatted consistently using APA formatting.
- The references section includes Digital Object Identifiers (DOIs) for NASA and other satellite data products.
- The Glossary is complete. Be consistent with how you write each entry (i.e. sentences vs. fragments).
- If there are no appendices, the heading is deleted.
- Consider image gallery or other way to share additional images/figures with partners – you don't have to include everything in the tech paper.
- Appendices:
 - Use appendices to include detailed information that would be distracting in the main body of the paper (e.g. supplementary information, equations, maps, etc.).
 - Each distinct item should have its own appendix. Separate content into multiple appendices if necessary.
 - Restart numbers labels for tables and/or figures at each appendix (i.e., A1, A2, etc. for Appendix A, B1, B2, etc. for Appendix B), if necessary.
 - **Don't forget to refer to your appendices in text.**
- Including a lot of high-resolution images exported from ArcGIS could make your tech paper file size very large. Consider compressing images in your tech paper by clicking on the image -> *Picture Tools* -> *Compress Pictures*.

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Poster

Purpose: *This is a visual demonstration of your project, highlighting important aspects in an appealing and easy to understand way. These are often presented at node closeout events, conferences, and recruiting events.*

- The formatting for each section should match the template:
 - Headings are Century Gothic and 44-point font.
 - Text within all images, maps, charts, and graphs are also Century Gothic.
 - All other text is Garamond.
 - Body text size is at least 24.
 - Caption text size is at least 16.
- Turn on slide guides and keep ALL poster content within the red margins:
 - ⇒ Click on the “View” tab -> check all boxes (“Ruler”, “Gridlines”, “Guides”) within the “Show” section of the “View” ribbon
 - The left edges of each of the sections should be lined up and within the guidelines.
- Title case should be used for the project subtitle.
- The abstract on this poster should be the same as the one written in the Project Summary final draft.
- Think of ways to demonstrate the project methodology visually. Think outside the box! Any flowcharts should be separate and editable rather than saved as an image.
- Objectives and conclusions should be in bulleted lists.
 - The bullets used should be symbol #52 in the Webdings font and should be the designated color for your project’s application area.
- **All images (maps, figures, tables, graphs, etc.) MUST have separate and editable text:**
 - Any text on the study area map should be in Century Gothic font.
 - The map AND legend should not imported as a single image.
- The satellite images in the Earth observations section should come from [DEVELOPedia](#). If your EO is not listed, contact the PC team.
- The results section should be mostly imagery.
- Only US federal agency logos are allowed on the poster; no other logos should be on your poster.
- If the project is a continuation, previous team members should be included in the acknowledgements section. For acknowledging past contributors, include their DEVELOP location.
- Don’t forget to update poster’s footer to include your project short title, node name, and term year.

Commented [ZB5]: This makes it easier to use the same figures in both the Poster and Presentation deliverables!

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Presentation

Purpose: *Use the presentation to tell the story of your project. Presentation skills are critical to effectively communicate your science to partners and for recruiting and conference presentations.*

- The formatting for each section should match the template:
 - All text is Century Gothic.
 - All text is Black, Text 1, Lighter 25%.
 - Header text size should be between 32 and 48 on most slides.
 - Body text size should be at least 20.
 - All other text (captions, legend items, image credits) should be no smaller than 14-point type.
 - The bullets used should be symbol #52 in the Webdings font and should be the designated color for your project's application area.
- Every slide should have speaker notes that are detailed enough for someone unfamiliar with the project to give the presentation. It is not uncommon for a CL or Fellow to present a project at a later date – these notes are crucial for giving a quality presentation.
- Slides should be mostly visual, using the least amount of text necessary to get your idea across.
- Legends should be included (or overlaid) separately from maps, not within the same image.
- Flowcharts should be editable and not saved as an image.
- Only US Federal agency logos are allowed in the presentation.
- All imagery **MUST** fit one of the following:
 - Collected by the team (make sure any people featured have signed media release forms)
 - Provided by the partner (with written permission to use it)
 - From a US federal agency and in the public domain (not taken by a partner)
 - From the DEVELOP collection on Flickr
 - Under a Creative Commons license – not all licenses are created equal! Look up the specific [license type](#) and make sure your image is cited correctly.
- All images should be cited appropriately with image source URLs in the speaker notes.
 - Map base layers should also be cited in the speaker notes.
- If you use image borders, they should all be a consistent width and color throughout the presentation.
- If the project is a continuation, previous team members should be included in the acknowledgements section. When acknowledging past contributors, denote their previous DEVELOP location.
- Required statements must be included:
 - NASA legal statements (built into the slide templates)
 - Copernicus Sentinel data acknowledgement, if used (must be added by teams using Sentinel data)

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