Tutorial: Producing a High-Quality Video

NASA DEVELOP National Program

Author:
Caitlin Reid[1]

Contributors/Editors:
Beth Brumbaugh[2]
Emily Voelker[2]
Amber Jones[2]

The objective of the following tutorial is to provide general, best-practices guidelines and advice for producing a high-quality video for the DEVELOP National Program

---

[1] August 2013, International Research Institute for Climate and Society (IRI) DEVELOP
[2] February 2014, DEVELOP National Program Communications Team

Contents

INTRODUCTION

The NASA DEVELOP National Program is an interdisciplinary and dynamic research program within the NASA Applied Sciences Program that connects interns, collaborators, partners and end-users to NASA resources. The Program provides capacity-building opportunities for both DEVELOP participants and partner/end-user organizations, as data products from NASA assets are used to address diverse environmental issues and public policy concerns. Terms are ten weeks long, and require several deliverables, including a short video that describes your team's project.

A high-quality video serves as a promotion and demonstration of and advertising for the work that has been put into the projects – for you, your team, the DEVELOP Program, partner organizations, and NASA data products. As the only publicized deliverable, the video, if done well, will allow your team to reach a broader audience than the technical paper and the other DEVELOP deliverables altogether.

The purpose of the following tutorial is to provide general guidelines and best-practices advice for producing a high-quality video for the DEVELOP program. The tutorial also includes legal considerations as well as the NASA Media Release Form and the scoring rubric used to judge the Virtual Poster Session (VPS). DEVELOP participants are also encouraged to further explore specific video editing software, as well as a review of other videos that have covered related topics.

STARTING YOUR VIDEO

Define the Audience
One thing that must be kept in mind as decisions are made regarding how to explain the project is: ***who will be watching this video***?

The audience may include:

- NASA employees – both affiliated and not affiliated with the DEVELOP Program
- People who are currently working in the field of related research, or have other experience or interest in the subject
- The general public, who may have limited to no knowledge about NASA satellites, remote sensing, or your team's topic of research
    - It is a common misperception that NASA is only involved in space exploration. It is important that more people understand satellites are used to study Earth systems, and that most of these resources are freely available to anyone

Explain the research to diverse groups who weren't involved with the project, as they can probably help identify what may need to be more clearly explained. If possible, talk to groups working in the field of related research--they will likely be able to spot errors.

Because people unfamiliar with your topic are likely to view these videos, keep technical jargon to a minimum. Explain information using commonly understood terms.

Constructing a Storyboard

The message about the research topic and project objective(s) should be clear. Thoroughly planning the outline and structuring a storyboard will help keep important points in focus and the message clear throughout the process. Focus on the primary goals of the video when constructing a storyboard and writing a script. These goals will help you and your team to decide what viewers need to understand and focus on, and will enable this information to be described clearly and concisely. Possible goals (some or all of these may be included):

- Describing the importance of the work. Specifically, explaining why the work is relevant to the audience, (i.e., creating an emotional connection). Why is this project worth the time and attention?
- Creating awareness of NASA data products for Earth science applications
- Promoting your partner organizations

Example from the Tutorial's Author

When I was putting together my video for my Summer 2013 project (Of Sandflies and Men: Environmental Factors Contributing to Kala Azar Outbreaks), I had to think about what I wanted my video to do for the project. The goals of the video are not necessarily the goals of the project. The video is a great opportunity to advertise the problem, if it is not well known, and to show how different organizations are working to solve it.

My goals included:

- Highlighting my partner organizations, so that more attention is focused on their efforts.
- Showcasing the NASA products used to solve the problem, to make people aware of their capabilities.
- Explaining my methodology clearly and concisely, so people can understand how my work will help address the problem. I left out several environmental factors that had been studied, because it wasn't important to the overall story to describe each one in detail. If my video is effective, it will encourage people to look into my research.
- Creating an emotional impact, so people care about the project and want the problem to be solved.

I did not have a goal of "explaining the problem." It is clearly a requirement that the problem must be explained, as a part of the introduction. However, if your communication skills are not strong, you may have a personal goal of "explaining the problem so a diverse audience will understand." Some technical information is required, but if you keep that to a minimum then you won't lose the people who don't have a background in the subject matter. Technical information and jargon should generally be kept to a minimum, as it can be boring even to people who are familiar with the topic.

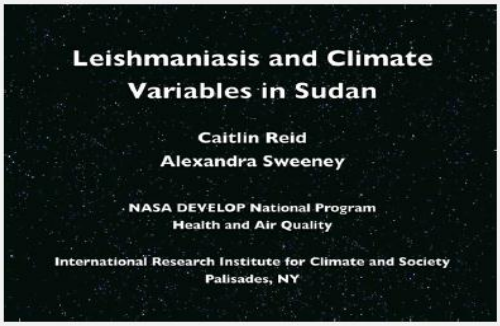
Storytelling in Script-Writing

A project video should have a clear story-arc, with a clear beginning, middle, and end. Don't just convey technical information. A story will help viewers emotionally connect to the research topic. Viewers should care about the research, because it ideally will impact communities for the better. Describe why help is needed, who will benefit, and how the results of you and your team's work will help them.

Why should people care that your study examined environmental factors in Ethiopia to help determine how malaria is transmitted? They should care because malaria is a terrible disease that many people needlessly suffer from since it is highly preventable.

Sample Outline

1. Optional NASA DEVELOP intro (if there's time)
2. Title Slide
   - The name of the project, your name(s), which DEVELOP application your project addressed, and your team's location



3. Introduction to where your project was located, and the background of the problem
   - Why should people care about your project?
   - What part of the problem was your project trying to address?
4. NASA EOS and products used
5. Methodology
6. Results
7. Conclusion
   - Give specific details and examples, showing how the results of your project will help solve the problem.
8. Ending point
   - End on a positive/hopeful note.
9. Acknowledgements
10. Required NASA DEVELOP ending

NOTE: Though it wasn't at the time the author created the tutorial, the NASA DEVELOP Intro Clip is now **required**, just like the DEVELOP Standard Ending is.

These can be found on the DEVELOP Exchange using the following file tree:

Start / Earthzine – Virtual Poster Sessions / Outreach Files /

Ultimately, the video is story-based. Remember this when considering what information is and is not necessary. For instance, the research and methodology are only parts of the whole story, so the video is not about every step taken in these. The story is about how NASA products can be applied to help with community concerns that partner or end-user organizations are working to solve. How will the products of your research help them?

As you structure your storyboard, try writing your major points on index cards and using those to help put your story in order. This can help you visualize what you are doing, and decide better ways of organizing your story.

A common strategy for DEVELOP videos is to start with team introductions. Consider re-examining this approach, and filling your first 60 seconds of the video with more attention-grabbing material, such as a description of the community concern or problem or a brief hint/overview of the results. Given the length of the videos, it is common for individual viewers to stop watching the videos after the first two minutes, so **the first 60 seconds of your video are the most valuable part of your video!**

Tips for Effective Writing:

- Be conversational. This is called "writing for the ear." Your paper should be written with a professional tone, but it will be painful to listen to a video that is highly formal or technical.
- Write in the **active voice**. This will strengthen your writing, and will also help you shorten sentences.
- Keep sentences simple, with one thought per sentence. Don't pack an excess of information into one sentence.
- Write to the visuals. This means that you should include high-impact imagery, and your words should correspond to the imagery that is on screen. Keep in mind that some visuals can stand alone and don't always need words to explain them.
- Avoid numbers, pronouns, and redundant information.
- Make your ending memorable.

When the first draft or outline of the video is pieced together, but before much time is spent refining it, have other people watch it. Ask them what they think it's about, and how they feel after watching it.

INTERVIEWS

Crafting Questions

Being careful not to over-do it, interviews with relevant subject experts, (i.e., affected citizens, scientists and project partners) will add value, interest, and credibility to the video and its viewers.

The questions asked have the potential to determine the success of the interview. Create a long list of all the questions each team member may have, then pare them down to the best, most meaningful three or four.

Avoid closed-ended questions that will evoke yes-or-no answers. While there are of course exceptions, generally speaking:

Favorable answers begin with questions that start with: **where, what, how,** or **why**
Unfavorable answers begin with questions that start with: **will, was, are,** or **did**

Good questions:

- How will the NASA satellite information contribute to the Ethiopia project?
- How does climate play a role in malaria transmission?
- How would a Malaria Early Warning System help the government of Ethiopia in its decision-making?
- What are the next steps?

Bad Questions:

- Are you going to be able to create an Early Warning System soon?
- Will interventions be intensified in the region?

The videos are quite short with a four minute time limit. Therefore, it is necessary that short clips, perhaps between ten to twenty seconds, can be pulled from interviews. It is recommended that a video does not include more than three interviewees and more than four interview clips. If a person interviewed provides valuable information but takes too long to explain it, creative ways to use parts of that interview or other ways to convey the information may be found. Or, it may be that the interview cannot be used at all.

To prevent that, it may be necessary to tell the person being interviewed exactly what kind of information would help tell the story – almost put words in their mouths. Ask leading or rhetorical questions. As they speak they can rephrase the information in their own words and adjust for accuracy. It is not inappropriate to tell the interviewee that short clips are required, and if necessary, ask them to repeat what they've said in a shorter way. Chances are they will be willing to do so once they know it will be of help.

If you would like to interview someone but they are located far from you, you can ask them to record themselves (or have someone help record them), or you can record them through a Skype call.

If there is time, it's a good idea to ask if there is anything else they would like to discuss, or think is important, and wasn't broached in the interview. This gives the interviewee the opportunity to fill in any possible gaps, and may result in their speaking more naturally, candidly, or passionately and ultimately provide better clips.

During the Interview

How an interview is managed will affect the answers. Equipment should be set up in advance, so as to not unnecessarily consume the interviewee's time. This will also demonstrate respect and professionalism, and will make for a more pleasant experience.

- Try to make it a comfortable conversation. Don't interrogate.
- Take your time while talking, and don't rush your subject.
- Be respectful of the subject's time constraints. Ask them in advance what those time constraints might be.

TECHNICAL TOOLS FOR VIDEO-MAKING

Once a clear idea is formed regarding what project information is fitting for the video, it is time to strategize how to turn that information into an animation. This section will describe some of the different components that go into cinematography.

Choosing Editing Software

While professional editing software, such as *Premiere* or *Avid*, has its advantages, there are many cost-free options that work extremely well for the purposes of DEVELOP

videos. If the team has access to a Mac, *iMovie* is very intuitive and easy to use. Likewise, *Movie Maker* on Microsoft operating systems is also very simple and straightforward. If these aren't good options, there are many other cost-free **and legal** software programs that can be found with a quick browser engine search. Also, creative methods can be used with screen capture software like *Encoder* and basic programs such as *PowerPoint* or *Prezi*. However, as example methods of producing footage, these will still require video editing software.

If your team doesn't have much experience with the available or desired video editing software, it is highly recommended that tutorials are utilized to help get acquainted with it. DEVELOP has created various related tutorials that are available on the Exchange (http://www.developexchange.com/) or by asking your Center Lead or the National Program Office.

Additionally, there are many free tutorials available on *YouTube*, *Lynda.com*, *Howcast*, and other similar websites. Another benefit would be to watch general video and audio editing tutorials, if there is time and interest in going more in-depth into a particular topic than this tutorial will cover.

*Adding **cross-dissolves** between images gives your video a professional look, and makes viewing changing images more pleasant. A fast cross-dissolve (~0.5 seconds) between most/all images smooths out the entire video.*

Dissolves are even more important when you are splicing video from the same interview together, as otherwise the transition can be quite visually jarring.

"A-Roll"

A-Roll is primary footage, such as filmed interviews. Film interviews using the highest quality camera available to your team. Check with any currently-enrolled members of your team since oftentimes universities will lend their film equipment, or film majors are happy to be credited for helping out. Also, using a tripod or improvised steadying surface is highly recommended.

The team's camera operator(s) should take time (if necessary) to familiarize his- or her-self with the camera, and look through the instruction manual or watch equipment tutorials for it possible.

In film and photography, the "**rule of thirds**: is a common composition tool that helps a cinematographer decide how to arrange or line-up imagery. While it's not always necessary to follow this rule, it can help when choosing how to frame the subject through the camera's lens and can result in a more aesthetically pleasing image.

The rule of thirds suggests that, instead of trying to center your subject, align the focus of the image along equidistant vertical and horizontal guide lines.

The skyline of Manhattan is aligned with the bottom, horizontal guide line.

"B-Roll"

While A-Roll is the most "important" footage, it can be unpleasant and dull to watch someone talking for more than around thirty seconds, and significantly less time when listening to a voice over a single scene. Switch up the visuals on screen by intercutting the A-Roll with supplemental footage, also known as B-Roll. B-Roll can be used to cut away from a person who is talking – either an interview subject, or a narrator. While the audio track continues, different imagery (be it video, animations, or photographs) will add interest and will keep viewers' attention.

There are both aesthetic and practical reasons for using B-Roll. B-Roll can also provide you with creative ways to hide mistakes. If you are splicing together clips of an interview and it is too visually jarring to smooth over with with a cross-dissolve, you can mask the splice by covering it up with another image or video.

Ultimately, effectively overlaying B-Roll and having good video structure will produce a better video than simply using fancy software.

Examples of B-Roll Imagery

Video

- Film people as they work on their computer or notebook, or showing them working in the field or walking down a hallway (if relevant).
- Utilize existing B-Roll video. Several sources provide visualizations that are available for public use, including **NASA**.
  - *Remember to cite your sources!*
- Use a "Video Screen Capture" program, such as **ScreenFlow** or **Captivate**, to capture film of an activity on a computer screen. This is much better than taking footage of the screen from over a person's shoulder, as the different frequencies between the computer screen and the video camera can result in moving lines being apparent in the recorded footage.
  - *Watch a YouTube tutorial or two for these programs if you are unfamiliar with them.*

Photos

- Use a **"Ken Burns"-style pan** (panning over a still image) over data and graphs, and even photos. This is often better than looking at one image in stasis for long periods of time.
- Use stock photos. Freely available photos can be found on **Flickr.com**, using an **Advanced Search** for "**Creative Commons**" materials. Non-profit organizations and governmental organizations often have free photo galleries (*e.g.* the **CDC**).
- Use other people's imagery. But get permission! If a website does not explicitly state you may use an image as you wish, contact the image owner and ask permission. A brief email stating that you admire the imagery and would find it useful for conveying your message is often enough to receive permission. It is useful to include information about your project and make it clear that you will not be profiting from this video. If there is no response, find another image.
  - *Still remember to cite any sources!*

It is necessary to the flow and understanding of your team's story that the imagery used is relevant to the concepts being discussed at the time. For example, if the discussion is about how the elderly and children are most affected by a particular disease, showing a picture of a healthy adult is probably not the best option. When discussing data that was obtained from a partner organization, photos of scientists collecting data, or medical staff working in a health center, are examples of good options.

This is a high-impact image that conveys the pain and fear this leishmaniasis patient is experiencing.

While it is ideal to find photos that were taken at the location of the study, if that imagery is unavailable, then it is not unacceptable to use photos that are similar to what the preferable imagery might look like.

Example from the Tutorial's Author

When I was trying to find imagery for my project during the Spring 2013 term, which looked at malaria transmission in Ethiopia, it was difficult finding relevant pictures that had been taken in the region I was studying.

However, some of my imagery did not need to be place-based. I was able to use photos of malaria victims that had been taken in nearby Kenya, found on Flickr.com. Images of scientists working in the field came from a colleague, and those images had been taken in Uganda.

While they were not photos of my specific research, that detail was less important than effectively communicating my point. In this video, I was trying to convey the pain of malaria, and how there were health workers in the field trying to abate the problem.

Voiceovers

Most videos will include narration, also called voiceovers. When a voiceover is monotone and dull, it will be difficult to garner attention – much less keep attention. There are many useful YouTube videos available that will give pointers on how to keep narration sounding interesting.

Voiceover Tips:

- Modulate your voice, rather than talking in a monotone. This will sound more natural and interesting. Try to sound like you are telling this very important, exciting information to a friend.
- Practice your script beforehand, and practice your diction and enunciation – especially consonants, which are often dropped or weakened in everyday speech.
- If while practicing you find you are having regular trouble with a part of the script, consider rewriting it.
- Talk about half as fast as you think you should. Edit your script to accommodate this, and keep time limitations in mind.
  - You want to speak at a pace of approximately 160 words per minute. You can use this as a guide as you are writing your script – 160 words should be about a minute's worth of text. If you realize you have two and a half minutes where you intend to speak, but you have 500 words in your script, you may need to shorten your script.
- Smile as you read.
- You may need to speak in a lower tone, if you are nervous. Some people start speaking in a higher register when they are uncomfortable.

Audio

Viewers will forgive sub-par video performance, but not low-quality audio (e.g., static or background noise). It's important that the message be clearly heard and understood, and that poor quality is not subtracting from that goal.

Use the highest quality microphone available to your team, and record in a room with good sound quality that doesn't echo, particularly for voiceovers. If a high quality microphone is unavailable, it may be better to use the microphone that smart phones and laptops are equipped with, although not always. It may be that investing in an inexpensive microphone is the best option, particularly for A-Roll audio.

> ***If it is difficult to understand your subject and reshooting is not an option, trying including subtitles.***

It's best to record interviews and narrations while listening to the audio through a set of headphones. Even inexpensive headphones will be helpful and more reliable than just using your ears. This may prevent having to re-film later if you find the speaker difficult to understand because of a poor microphone, or a distracting back-ground noise, like the hum of an air conditioner that is easy to tune out while recording.

Lighting

Lighting will affect the ambiance of the imagery and video. Film interviews in a well-lit location with a single type of light source (e.g., have all natural light rather than a mix of natural and fluorescent light). Different types of light have different types of "temperatures." If filming in a room with large windows that are letting in plenty of natural light while an overhead fluorescent light is on, this can throw off the camera's "white balance."

To demonstrate this principle, see the left half of the image. It was taken in exposure to both natural and fluorescent lighting and appears to have a purple tint. The image to the right was taken with exposure to fluorescent lighting only, and the camera was able to maintain its white balance resulting in a true-color image.

Pay attention to where lighting is coming from. Overhead lights tend to be unflattering. If track lighting is available, adjust the angles of the bulbs to make the lighting as complimentary for the image focus as possible. Avoid deep shadows from lighting that is directly overhead. Also, avoid backlit imagery, and if using natural light from a window, have the subject face the window.

Note the green tint to the image resulting from fluorescent lighting, and the dark shadows across the face.

Record test footage to check lighting. If the image focus and scene are green tinted (likely the result of all fluorescent lighting), or if the image is too dark, with strong shadows across the face, then lighting needs adjusting.

If a table or desk lamp that uses an incandescent bulb is available, position that near the subject, even if it is supplemental to fluorescent overhead lights. Cameras can usually adjust for incandescent light and not lose white-balance, but be sure to test this first.

LEGAL CONSIDERATIONS

When creating your video you must pay attention to **copyright/licensing issues** the **use of organizational** logos and obtain **authorization and consent** of anyone featured in the video.

Copyright/Licensing

You must not use any images, footage, music, or other form of copyrighted/licensed material without written permission from the owner. Some forms of media may be available for use under creative commons license, but require the item to be attributed to the owner/creator.

Fair Use

In US copyright law (17 U.S.C.), the doctrine of "fair use" states that brief excerpts (arbitrarily for DEVELOP purposes ≤ ten seconds) of copyright material may be used for purposes that include but are not limited to; criticism, research, education, and news reporting, without the need for permission from or payment to the copyright holder. In keeping with good practices, site sources for all fair uses.

Authorization and Consent

Any individual whose face is identifiable in a DEVELOP video must sign a NASA Media Release. Scans of signed Media Releases can be e-mailed to the Communications Associate and the original should be mailed to the National Program Office. Panned footage of a crowd (where the faces are blurred) or from a distance (and no features can be distinguished) do not require media releases to be signed.

Be particularly careful when using any video or images that include persons who do not

have the legal capacity to enter a contract (e.g. anyone under the age of 19 in Alabama or Nebraska, and anyone under the age of 18 in all other states). That individual's parent or legal guardian must sign the NASA Media Release document giving their consent.

Anyone who has not previously signed a NASA Media Release (Appendix A) that has then been returned to the DEVELOP National Program Office must do so before your video can be uploaded by the Program. Failure to do so will mean that your deliverable is incomplete and that your team will not participate in the Earthzine Virtual Poster Session contest.

Use of Logos
The use of organization's logos other than federal government organizations is not permitted. This includes state, local, NGO, and international logos. Any logos for software (such as ESRI/ArcGIS or Exelis/ENVI) are not permitted. The names of non-federal organizations can be written out and included, but the logo itself cannot be used.

CONCLUSION

The goal of this tutorial was to help teams prepare and plan for the video-making process. It's easy to overlook details, and hopefully attention was drawn to options that may not have otherwise been considered. This tutorial is not all inclusive, but should serve as a good starting-point. Be sure to watch or read other relevant tutorials and take the time to become familiar with the equipment and software that will be used before starting with it. If you have suggestions for the improvement of this guide book, please collaborate with DEVELOP's National Communications Team to be added as a contributor.

Have fun creating the project video!

RECOMMENDED TUTORIALS

Voiceovers/Narration

Dan Levine with Such a Voice: Voice Over Training and Technique
Mel Allen with Such a Voice: Voice-Over Technique Training, Pitch Variation

Lighting

Rick Allen Lippert: On Camera: Video Lighting for the Web
YouTube introduction/excerpt from this video: Video Lighting Tutorial
Ruth Sherman: Amateur Video Lighting

Interviewing

Anthony Q. Artis: Foundations of Video: Interviews
YouTube introduction/excerpt from this video: Interviewing Tutorial
Rick Allen Lippert: On Camera: Develop Your Video Presence
YouTube introduction/excerpt from this video: Presentation Tutorial

National Aeronautics and Space Administration
Media Release

I, the undersigned, do hereby give permission to be recorded, photographed and/or videotaped by or for the National Aeronautics and Space Administration ("NASA") or its representatives. I further give permission to NASA and its representatives to use, reproduce, prepare derivative works, publish, distribute to the public, perform publicly, and/or publicly display the materials, including excerpts and any ancillary material, which include my name, affiliation (educational institute/company), image, voice, and/or likeness. NASA may distribute the materials, including excerpts therefrom, and any ancillary material through a variety of media in existence now or in the future, including but not limited to print, television, websites, radio, or any other means. NASA may also permit a third party to exercise NASA's rights, including but not limited to the right to display or distribute the recording, including excerpts therefrom, and any ancillary material, in any manner NASA deems appropriate.

I also understand that this permission to use my name, image, voice and/or likeness in such materials is not limited in time and that I will not receive compensation for granting this permission.

I acknowledge that NASA has no obligation to use my name, image, voice, and/or likeness in any materials produced by NASA, but if NASA so decides to use them, I waive the right to inspect or approve any such use.

I hereby unconditionally release NASA and its representatives from any and all claims and demands arising out of the activities authorized under the terms of this agreement. This agreement is governed by United States federal law.

By signing below, I represent that I have read the foregoing and fully understand its contents.

NAME (PRINT): _____

ADDRESS: _____

SIGNATURE: _____ DATE: _____

IF THE ABOVE INDIVIDUAL DOES NOT HAVE THE LEGAL CAPACITY TO ENTER INTO A CONTRACT, A PARENT/GUARDIAN MUST SIGN BELOW:

I, the undersigned, hereby represent and warrant that I am the legal parent/guardian of the above individual, a minor, and have full authority to authorize the above Agreement which I have read and approved.

PARENT/GUARDIAN NAME (PRINT): _____

SIGNATURE: _____ DATE: _____

Virtual Poster Session Scoring Rubric

25% Content Clarity: (Points____) Does the video present a succinct description of the community concern and how it is addressed with the use of NASA Earth observations, supporting data or other technology?	**25% Memorable/Creativity: (Points____)** How well does the video draw and keep the listener's attention? Does the team engage with the audience?	**25% Blogging: (Points____)** Do the team members actively participate in dialogue with commenters/viewers?	**25% Production: (Points____)** What is the overall quality of production (including visual and sound elements)?
5 POINTS **The viewer is left with an exceptional understanding of the topic/research.** Video highlights the capabilities of NASA EOS to meet partner needs and the use of supporting data or methods were succinctly explained. Audience was well-informed about the problem, need for work being done, and how the project could improve decision-making. Final results are clear and convincing. Project has reached a clear end point (end product is easily understood and clearly meets/exceeds partner's needs). It is clear that each author listed contributed to the video and research content. Each member introduced themselves, or names appeared as they spoke.	**5 POINTS** **The audience will definitely remember research and video contents, and feels like they want to learn more. An exceptionally creative or memorable video.** Visual themes work well with the presentation of material and aid in the viewer's understanding of the topic/ research. The video is very original, creative, and unique.	**5 POINTS** **Virtual poster generated an exceptional amount of feedback in the commenting section on Earthzine's website.** Feedback involves an exceptional amount of constructive dialogue about the project and its scientific, practical applications. Substantial dialogue addresses specifics of project's life cycle, partnerships, and use of NASA EOS, supporting data, methods, or alternative approach for studying Earth science and societal issues, presentation through use of media, etc. Team commented on other projects.	**5 POINTS** **Video is exceptionally well planned, with smooth transitions and edits. Sounds are excellently balanced and easy to hear.** All elements coincide with the overall tone of the research/topic. Team interacts with visuals and audio is not limited to voice-over narration. Music is appropriate for theme and research.
4 POINTS **The viewer is left with a strong understanding of the topic/research.** Video highlights the capabilities of NASA EOS to meet partner needs and some supporting data or methods is explained in the video. Audience was well-informed about the community concern, the project end-user and how the project could improve decision-making. Final results are clear and a clear end product is demonstrated/provided to the partner. It is evident that each author listed contributed to the video and research content. Each member of the project was identified during the video (either through introducing themselves or by their names appearing during a voice over).	**4 POINTS** **The audience will remember research and video contents. A very creative and memorable video.** Visual themes are consistent and relevant to the presentation of the topic/research. The video has original thought and is creative.	**4 POINTS** **Virtual poster generated ample feedback in the commenting section on Earthzine's website.** Feedback involves constructive dialogue about the project and its scientific, practical applications. The dialogue at least in part addresses specifics of project's life cycle, partnerships, and use of NASA EOS, supporting data, methods, or alternative approach for studying Earth science and societal issues, presentation through use of media, etc. Team commented on at least one other project.	**4 POINTS** **Video is well planned, with competent edits. Sound is well balanced and easier to hear.** Most elements blend with the overall tone of the research/topic. Music is appropriate for theme and research. A video may not exceed a '4' in this category if it omits the mandatory DEVELOP ending ("NASA DEVELOP" appears next to a rotating Earth, followed by the DEVELOP website address fading in).
3 POINTS **Viewer is left with general understanding of the topic/research.** Video highlights the capabilities of NASA EOS to meet partner needs. Team vaguely presents supporting data or methods used. Audience was informed about the problem and need for work being done, with some details missing or not described in short. Partner/End-user decision-making activity was described but not succinctly. Final results are apparent, with some detail missing. Introductions were made, but it is not clear that each author contributed to the research.	**3 POINTS** **The audience is likely to remember some parts but not all key concepts of the video. The video contains creative elements.** Visual themes are relevant to the presentation of the topic/research, and some but not all of the key concepts are memorable. The video has some original thought and is moderately creative.	**3 POINTS** **Poster session generated moderate feedback in the commenting section.** There is a modest amount of dialogue beyond Facebook "Likes" addressing one or a few specifics of the project listed in the Exceptional Category (the category worth 5 points).	**3 POINTS** **Video is somewhat planned. Transitions and edits are rudimentary. The video exceeds 4 minutes.** Sounds are reasonably balanced. Some elements (lighting, music, etc.) are distracting. Music is OK; it doesn't add or subtract from content. A video may not be ranked higher than a '3' in this category if it exceeds the 4 minute maximum length.
2 POINTS **Viewer is left with a little understanding of the topic/research.** Audience was informed about the problem and need for work being done, with some details missing or not described in short. Project is somewhat successful in fulfilling objectives as described. Final results are addressed but not in a clear manner. Authors/ team members are listed, but team member fails to participate beyond that.	**2 POINTS** **Some introduced visual themes may distract from viewer's understanding of the topic/research.** The video has too little original thinking but is focused on the research. It relies on preformatted layouts and most, or all, of the video is voice over narration.	**2 POINTS** **Poster session generated minimal feedback in the commenting section.** Feedback is limited to Facebook "Likes" and a few comments and replies.	**2 POINTS** **Video is not well planned and has poor quality edits. Sound is of poor quality.** Many elements distract from the presentation of the research. Music selection or volume changes are too distracting.
1 POINT **Viewer is left with very little of the topic/research.** No NASA EOS data. Supporting data is shown but not described. Audience was not well-informed about the problem, need for work. Project falls short of fulfilling objectives stated or outlining the approach. Team member is listed but not shown in video, or no team introduction is given.	**1 POINT** **Video is slightly memorable.** The video addresses the research to a degree, but is not focused on the key concepts. The video is only slightly memorable.	**1 POINT** **Team has very little interaction with the audience.** Feedback is limited to Facebook "Likes", the team replies to some but not all comments.	**1 POINT** **Technical difficulties seriously interfere with the viewer's ability to understand content.** The camera work and/or transitions are overly distracting. Sound and visual files are distorted, titles and captions are illegible.
0 POINTS **Viewer is left with no understanding of the topic/research.** The video reaches the intended audience, but the video is not informative. The topic/research is not addressed. Much of the supporting information in the video is irrelevant to the project and/or the project's objectives. The video fails to reach the intended audience.	**0 POINTS** **Video is neither memorable nor creative.** The video has no originality (e.g., limited to PowerPoint slide and narration). The video is unmemorable (or memorable for negative reasons). Theme or visual style is unappealing to the intended general audience.	**0 POINTS** **Team has no interaction with the audience.** Team has made no effort to answer questions or comments from viewers. A video may not be ranked higher than a '0' in this category if they did not respond to any comments.	**0 POINTS** **Copyrighted materials are used in the video without credits.** Team uses copyrighted materials, such as photos, graphics and music, in the video but does not properly cite them.

Last Revised: Jan. 2014