

# Case Studies

## What is it?

A case study (or case story) may be understood best as a narrative, based on actual events, that creates an opportunity for conversation, problem analysis, and decision-making. An effective case study transfers specific knowledge by placing the student or workshop participant in a position to think through choices faced by decision-makers in real-life situations. By confronting actual scenarios, participants develop and refine analytical skills for solving similar problems in their own projects.<sup>1</sup>

## How do I start?<sup>2</sup>

- Step 1** **Pick a Target**  
Look for a topic that needs to be addressed, an experience that has presented itself, a key player in a project or mission who is willing to tell her or his story, and define parameters or borders of the case.
- Step 2** **Define the Parameters**  
Identify the learning objectives of the case study: events to be included (and what not to include), persons to be included (whose story is it?), and teaching points to be emphasized.
- Step 3** **Research**  
Gather as much background information on the project as possible. Access public information and collect data from historical and/or current project materials, briefings, and documents.
- Step 4** **Interview Key Players to Get Their Story**  
Those directly involved will have critical perspectives and information, and their stories and direct quotes will add the color and depth only firsthand accounts provide.
- Step 5** **Evaluate Story Lines for Learning Points**  
Assess (or reassess) what points can be illustrated by the case, and what story lines can be pursued.
- Step 6** **Draft the Case into Narrative**  
Writing the first draft of the case requires assembling the material—research and interviews—into a narrative, complete with characters, plot, beginning, middle, and end.
- Step 7** **Test the Case with an Audience and Create an Epilogue and a Teaching Note**  
Present the case to see how it comes across to a “low-risk” audience. Share an epilogue of what happened after the end of the case study story that provides closure to the story to date and a Teaching Note that can work a guide for case instructors to use the case study.
- Step 8** **Validate, Publish, and Roll out the Case**  
Make sure all the individuals mentioned in the case study have had a chance to get their story heard. Keep in mind that the case is intended to help people learn. This requires that everyone in the story be included, to the extent possible, in the case-study events and roll outs of the case. Once the sponsor has approved the case, it can be published and used so people may learn from it.

<sup>1</sup> Case Study Methodology. Goddard Space Flight Center. [http://www.nasa.gov/centers/goddard/pdf/292342main\\_GSFC-Methodology-1.pdf](http://www.nasa.gov/centers/goddard/pdf/292342main_GSFC-Methodology-1.pdf)

<sup>2</sup> Case Study Methodology. Goddard Space Flight Center.

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## What a case study does

Case-based learning at NASA is active, experiential, and takes place within a context—all keys to the effectiveness of the case study as a knowledge management tool.

An effective case study:

- Leaves important issues unresolved
- Allows for multiple levels of analysis
- Captures a tension between courses of action
- Generates more questions than answers
- Fosters decision-making thinking
- Motivates more research and study

## Important Tips – What is not a case study<sup>3</sup>

It is also important to describe what a case study is not. It's not a story intended either to validate or denigrate someone's career, project, or mission. That is, it does not set out to illustrate per se the good or the bad (or the ugly), but is instead designed to teach by telling a story in an objective, usually third-person narrative. Using the story, the reader can draw conclusions and learn lessons through contextual or experience-based learning. The case study does not set out to second-guess decisions; it sets out to allow others to practice thinking through how decisions are made.

## How can I learn more?

- **NASA Safety Center – System Failure Case Studies**  
<http://nsc.nasa.gov/sfcs/>
- **NASA Case Study Catalog**  
[http://www.nasa.gov/centers/goddard/pdf/450420main\\_NASA\\_Case\\_Study\\_Catalog.pdf](http://www.nasa.gov/centers/goddard/pdf/450420main_NASA_Case_Study_Catalog.pdf)
- **NASA APPEL Case Studies**  
<http://appel.nasa.gov/knowledge-sharing/case-studies/>
- **NASA Virtual Project Management (PM) Challenge**  
<http://www.nasa.gov/offices/oc/pmchallenge/program/CaseStudy.html>

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<sup>3</sup> Case Study Methodology. Goddard Space Flight Center. [http://www.nasa.gov/centers/goddard/pdf/292342main\\_GSFC-Methodology-1.pdf](http://www.nasa.gov/centers/goddard/pdf/292342main_GSFC-Methodology-1.pdf)