# Case Study

# Mitigation Planning Worksheet

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| **Mitigation Planning Worksheet** | | |
| **Risk ID** 7 | **Responsibility** J. Johnstone | |
| **Risk statement**  Science requirements have substantial TBDs; late completion of TBDs likely, with reduction in adequate testing time, possible science application software failure, incorrect science data being captured, hardware damage if incorrect safety limits were provided, extensive rework and substantial cost overruns, mission failure if problems not found before system is in operation. | | |
| **Mitigation goals and constraints** (in observable terms)  Science requirements must be completed and all related change requests submitted for implementation. No slipping of the overall development completion date is allowed. Preferable to not use overtime or additional resources but if necessary to keep completion date, do so. | | |
| **Additional data** (e.g., root causes, impacted elements)  Root causes - incomplete definition of reqts in early phases and inadequate scheduling to allow completion; poorly planned use of personnel (civil service and contractor); insufficient funding for contractor personnel and not enough civil servants to make up for it; science requirements not available in early phases. | | |
| **Related risks**  none | | |
| **Alternative strategies/actions** | | **Estimated costs** |
| Initiate an extra contractor task to analyze, complete, research, and complete the TBD requirements | | $70,000 |
| Analyze, research, and complete TBD science requirements and submit change requests ASAP - use civil service and contractor | | $10,000 |
| Authorize contractor overtime until all requirements are complete | | $105,000 |
| Wait and see how bad it gets - slip schedule then if need to (AA satellite completion is probably going to be late as well) | | worst case: $3 -8 million |
| Reprioritize baselined requirements and reorder builds to minimize impact of TBDs | | 1 person week (civil service) |
| **Related mitigation plans**  none | | |
| **Strategy evaluation criteria**  Minimal contractor cost, no completion date slippage | | |

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| **Chosen strategy/actions** | **Success measures** |
| Analyze, research, and complete TBD science requirements and submit change requests ASAP - use civil service and contractor | All TBD requirements completed by July with no overtime required |
| Reprioritize baselined requirements and reorder builds to minimize impact of TBDs | Build order is not impacted by change requests from TBD requirements |
| Track progress and use contingency if necessary | Management is not surprised by failure of mitigation plan |
| **Contingency strategy** | **Contingency trigger** |
| Authorize contractor overtime to assist civil service. Up to 10 person weeks in contractor time allowed. Approval by Johnstone required. | Weekly status reveals that TBD requirements are not going to be documented and closed by the due dates |
| Drop lower level science requirements to make up for estimated development time required to complete higher priority requirements. | Insufficient time in schedule to complete all requirements (as calculated by projected impact of schedule and resource hits from change requests and current progress on implementation) |