



## Marine Industry Experience of Conralytics

The company has completed numerous projects for clients ranging from providing operations and management advice to complete claim preparation including litigation support. A listing of selected projects which provides insight into our experience working on behalf of both shipyards and ship owners and operators follows:

- A Gulf Coast shipyard was engaged with three major ship construction projects for the Navy in which they were experiencing major delays and cost overruns due to government responsible problems. Conralytics' initial involvement with the shipyard and the three projects was at the request of the contractor's outside counsel to assist with an analysis of the contracts, the estimated completion date and cost, and the estimated claim recovery value of \$162 million. These analyses and data were then presented to the shipyard's banks and auditors in support of continued credit. The next task for Conralytics was to develop a quantum analysis methodology to further support the existing Request for Equitable Adjustment (REA) which the shipyard had submitted to the navy. This quantum analysis methodology developed by Conralytics yielded the quantum associated with the entitlement previously presented to the Navy, as it related to the three ship construction projects, over a three year period. The analyses considered the impact of late design and engineering, inefficiencies due to contract growth, formal changes, constructive changes, late materials, manpower shortages, and other concurrent impact factors. The quantum analysis was presented to the Navy who established an on-site team at the shipyard to review and audit the analysis. Following a year long review, the shipyard and Navy reached an equitable settlement.
- Engaged by ship owner and law firm to analyze shipyard claims, prepare a claims rebuttal, and generally assist in litigation of a dispute under a contract associated with the repair, conversion, and joining of a Chemical/Oil Tanker. Conralytics' performed identification of discovery documents, preparation of interrogatories, deposition support, review of owner/contractor documents, preparation of various computerized databases, time-phasing of labor and material expenditures, recommendations related to settlement/litigation strategy, analysis of shipyard constructive changes, and analysis of shipyard delay, disruption, and acceleration allegations. Case preparation proceeded through expert witness depositions and preparation of expert reports whereupon the case was favorably negotiated in the interest of the client.
- Conralytics undertook a sixteen month effort to analyze entitlement and quantum issues of a contract dispute for the Canadian division of a large defense contractor that was acting as the prime contractor and systems



integrator in the modernization and upgrade of four Canadian Destroyers. This effort was structured to meet four principal objectives:

- To provide an analysis and report focusing on the delay and disruption aspects of the project
- To provide the client's legal team with a program overview and assessment which would allow counsel to formulate legal strategy and determine a detailed course for claim litigation
- To provide the client with an interim assessment of program cost overruns and cost overrun responsibility in the event negotiations were possible
- To provide a report approach and methodology which could be expanded upon when full data access was available in support of a claim for litigation

The studies performed were principally designed to assimilate documentable facts for the purpose of determining the causes and effects of events, actions and inactions that impacted the project. The analysis provided the basis upon which fault and liability was established and allocated to the responsible party. Since it was believed that delay and disruption factors caused the most impact to cost and schedule, it was determined that the report would focus on these aspects of the project. Detailed analyses were conducted covering the following aspects of the project:

- Design and engineering
- Construction activities as they were affected by:
  - Drawing availability
  - Material availability
  - Scheduled growth work
  - Unscheduled growth work
  - Customer approvals
- Directed procurements

The conclusions reached provided a supportable assessment of the factors impacting the schedule and cost performance experienced on the project and a rationale for allocating the responsibility among the contract parties. This assessment provided the framework within which a satisfactory negotiated settlement valued at approximately \$750 million was reached between the parties.

- A Gulf Coast shipyard was preparing an REA for increased costs associated with the bid labor and overhead rates for the Dock Landing Ship, Fleet Oiler, and Fleet Oiler Jumbo Programs. The contractor engaged Contralytics to perform a review of the REA and offer comments and suggestions to ensure that the REA was both complete and accurate. The REA was valued at \$93 million.



- A Gulf Coast shipbuilder was experiencing cost overruns and delays associated with changed and added work in excess of the contract requirements relative to the construction of patrol boats. The contractor engaged Contralytics to review the project data and records and interview contractor personnel to determine if the contractor was entitled to an increase in the contract price and extension in the project completion date as a result of owner responsible delays. As a result of the review findings, an REA valued at \$2 million was developed which included identification and estimation of changes, performance of cause-and-effect delay analyses, disruption and loss of productivity analyses, schedule acceleration analyses, and entitlement assessment and rationale. Following submittal of the REA package to the owner, a settlement of the issues was achieved resulting in an equitable adjustment in the contract price and schedule.
- Engaged by a West Coast shipyard and law firm to assist in arbitration of a dispute under a contract associated with the conversion of a cruise vessel. Tasks included performance of a resource utilization constraint critical path schedule analysis, disruption and inefficiency analysis, and constructive change entitlement analysis. Total value of the claim was \$25 million. These efforts contributed to a favorable settlement for the shipyard.
- A Gulf Coast shipyard was preparing an REA for increased costs associated with delay and disruption caused by late delivery of materials. The contractor engaged Contralytics to perform top level delay and disruption analyses. The analyses included the delay and disruptive impact of late materials on all aspects of the shipyard construction process. Areas of analysis included fabrication, unit assembly, platform assembly, erection, zone outfitting and on-board outfitting. In addition to analyzing the delay and disruptive impact on the Fleet Oiler contract, the analyses also addressed the impact on the program as a result of the ripple effect through the shipyard facility.
- Prepared an REA for a Gulf Coast shipbuilder valued at \$250,000 for construction of a Motor Vessel Ferry. The REA addressed cost and schedule adjustments for delay, acceleration, late and incomplete owner furnished material, formal changes, and constructive changes. A critical path schedule analysis was performed which quantified the owner responsible delays for the project and provided the basis for delay associated costs. A cause-and-effect analysis of the contractor's acceleration efforts yielded the acceleration costs for which the contractor was entitled. For each delay event and change issue, an entitlement assessment and rationale was prepared which provided sufficient data to document cause-and-effect relationships, responsibility for the delay or change, and cost impact.



- Prepared an REA for a Gulf Coast shipbuilder valued at \$500,000 for construction of four Oil Spill Response Vessels. The REA addressed cost and schedule adjustments caused by delay, acceleration, formal changes, and constructive changes. A critical path schedule analysis was performed which quantified the owner-responsible delays for the project and the basis for delay associated costs. Similarly, a cause-and-effect analysis of the contractor's acceleration efforts yielded the owner caused acceleration costs for which the contractor was entitled. For each delay and change event, an entitlement assessment was conducted to document delay cause-and-effect relationships and associated costs which were proved to be owner responsible.
- Prepared an REA for a Gulf Coast shipbuilder valued at \$300,000 for construction of two Drill Barges. The REA documented cost and schedule impact adjustments for delay, acceleration, and formal and constructive changes which were owner responsible. This included a critical path schedule analysis to quantify the owner responsible delays and associated costs and a cause-and-effect analysis of the contractor's acceleration efforts caused by the owner's actions. Also prepared claim avoidance memoranda for the client.
- A Gulf Coast Shipbuilder was experiencing delays which jeopardized project completion of overhaul and repair of a Navy Frigate in accordance with contract schedule requirements. The contractor engaged Contralytics to review the project data and records and interview contractor personnel to determine if the contractor was entitled to an extension in the project completion date as a result of government responsible delays. This initial review resulted in identification of government responsible delays and initiation of a detailed critical path schedule analysis to quantify the delay impact on project completion. In parallel with this effort, the contractor, armed with this new data, initiated discussions with the government. The final result was the contractor was able to obtain the required schedule relief and no claim or REA was necessary.
- Prepared an REA for a Gulf Coast shipbuilder valued at \$500,000 for overhaul and repair of a dredge. The REA documented cost and schedule adjustments for delay, acceleration, late and incomplete government furnished material, delayed government response, formal changes, and constructive changes. A critical path schedule analysis was performed which quantified the government responsible delays for the project and provided the basis for delay associated costs. A cause-and-effect analysis of the contractor's acceleration efforts yielded the acceleration costs for which the contractor was entitled. For each delay event and change issue, an entitlement assessment and rationale was developed to provide sufficient data to document cause-and-effect relationships, responsibility for the delay or change, and cost impact.



- Engaged by a major ship owner/operator to provide general contract management guidance in a new U. S. ship construction program. Contralytics provided a review of the contract and specifications for potential areas of dispute with the shipyard and an ongoing review of all contract specific communications with the shipyard. Provided several top and lower-level management seminars on claims avoidance and suggested procedures for minimizing disputes and being prepared for them if they occurred.
- Performed a complete review of a Gulf Coast shipyard and fabrication facility with regard to standardization, pre-outfitting, work package planning, material processing and flow, scheduling and sequencing of work, modular construction, new production processes, and management control systems. This review and assessment resulted in identification of problems and recommended solutions pertinent to production of double hull tankers.
- A Gulf Coast shipbuilder had prepared a proposal for use in negotiating a settlement with the owner for delays and increased costs experienced during construction of a Molten Sulpher Carrier which were the responsibility of the owner. The contractor engaged Contralytics to review the proposal, advise on the merits of the claim, and improve on the presentation aspects of the package. A top level disruption analysis was performed. The claim value was \$3.5 million.
- Presentation to key shipyard personnel of a Gulf Coast shipbuilder relative to the principal elements of effective change order management, basic analysis techniques, and procedures required for proper impact assessment. The two day seminar included all aspects of change order management such as basic agreements with the owner, change procedures, packaging, negotiations, authorization, and implementation. A major focus of the seminar was to demonstrate to shipyard personnel that effective change order management is one of the most positive steps a contractor and owner can take to avoid costly claims.
- The owner issued major work scope additions which extended numerous critical path schedule activities including project completion for an Oil Production Platform. Failure by both parties to reach agreement on an equitable schedule adjustment prompted the contractor to engage Contralytics in performance of a detailed critical path schedule analysis to quantify the delay impact on project completion. In addition to establishing delay impact, both parties desired to minimize the delay impact by means of acceleration. An acceleration analysis was performed which identified acceleration costs including inefficiencies associated with the accelerated effort for which the contractor was entitled. The critical path schedule and acceleration analyses were presented in a formal REA proposal which included an entitlement assessment and rationale for each delaying



- event. It also provided sufficient data to document cause-and-effect relationships, responsibility for delay, and cost impact.
- Prepared an REA for cost and schedule adjustments for delay, acceleration, formal changes, and constructive changes for a Navy Hospital Ship. A cause-and-effect schedule analysis was performed which quantified the owner responsible delays for the project and provided the basis for delay associated costs. A cause-and-effect analysis of the contractor's acceleration efforts yielded the acceleration costs for which the contractor was entitled. A disruption analysis based on the "Navsea Method" was conducted to estimate owner responsible inefficiency. For each delay event and change issue, an entitlement assessment and rationale was developed to provide sufficient data to document cause-and-effect relationships, responsibility for the delay or change, and cost impact. The claim value was \$630,000.
  - Prepared an REA related to structural problems for a major shipyard subcontractor which formed the basis for final contract close-out settlement of the purchase order. Tasks included analyses for delay, acceleration, formal changes, and constructive changes. For each change issue, an entitlement assessment and rationale was developed to provide sufficient data to document cause-and-effect relationships, responsibility for the change, and cost impact. Approximate claim dollar value \$130,000.
  - Engaged by prime contractor's attorney to review the proposal for equitable adjustment submitted by subcontractor for the assembly and test of causeways for the Navy. Provided an expert report on the alleged impacts of delay, disruption, inefficiency, and acceleration.
  - Provided an expert report for a Gulf Coast shipbuilder on the impact of delay, disruption, inefficiency, and acceleration associated with construction of 4 River-boat Gambling Casinos. The impact assessment against one of its subcontractors was about \$280,000 and was prepared in anticipation of litigation. After an exchange of expert reports, the shipyard and its subcontractor were able to reach a settlement before the scheduled court date.
  - Prepared an REA for cost and schedule adjustments for delay, acceleration, constructive changes, and loss of efficiency for an East Coast shipyard subcontractor performing piping and electrical installations for a two-ship MSC conversion project. The claim value was approximately \$2.6 million.
  - Engaged by a Gulf Coast construction/fabrication contractor and law firm to assist in settlement of a dispute under a contract associated with the overhaul and repair of a MARAD vessel. Tasks included preparation of an



expert report which contained analyses related to schedule delay, loss of efficiency, acceleration, and constructive changes. Prior to trial, the contractor and MARAD agreed to submit the case to mediation. Following a presentation by Contralytics of their findings, the parties reached a settlement.

- Engaged by an East Coast ship repair yard on an ongoing basis to provide technical assistance in the development of contract proposals for government solicitations. This work typically entails the identification of the detail production work activities required to satisfy the technical requirements of the solicitation and the development of critical path networks and schedules for the overhaul or repair programs. These efforts are required to demonstrate, in detail, an understanding of the overall scope of work and the plan to accomplish that work by providing a time phased sequencing network, including milestones or key events for each work item which can be used upon award to progress the program.
- Provided expert testimony for a Gulf Coast shipbuilder on the impact of delay, disruption, inefficiency, and acceleration associated with construction of a River-boat Gambling Casino. The impact assessment was about \$400,000 and was prepared in anticipation of litigation. After an exchange of expert reports, the shipyard and the owner were able to reach a favorable settlement before the scheduled court date.