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# MIDDLE EAST

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## THE IMPORTANCE OF FACT BASED – THEORETICAL DELAY ANALYSIS

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I believe one of the most misused phrases in delay analysis is: “It’s a Time Impact Analysis”.

I have worked on over 100 claims / disputes, in different settings around the World, and have seen this claim on at least 40 separate occasions (from employers, contract administrators, contractors, suppliers and sub-contractors). However, I have only seen a “correct” Time Impact Analysis (“TIA”) on a handful of occasions.

Delay analysis methods, whether factual or theoretical, use standard schedule management tools (which assist planners and engineers to analyse the risks of schedule completion for projects on a daily basis). TIA is considered a reliable (and sometimes prescribed) method, though prior to the publication of the Society of Construction Law (SCL) Delay and Disruption Protocol in October 2002, it was a term loosely used to describe a group of fact based, rather than theoretically driven, analysis methods. The SCL Protocol sought to clearly identify (in Section 3) how a ‘Time Impact Analysis’ should be carried out.

It seems to me that many parties claiming to have completed a TIA do so because either they don’t understand what the analysis actually requires, or they hope to give their, otherwise theoretical, analysis more authority than it deserves.

One of the objectives of the SCL Protocol, which I played a part in developing, was to provide meaningful guidance to the construction industry about the ‘facts and fiction’ surrounding retrospective claims; often considered, in the area of delay and extensions of time (“EOT”), to be a ‘dark art’.

I was pleased that, when the SCL updated the Protocol last year, there was little material change to the ‘hard fought’ principles developed by the original drafting team. In my view, it was a sensible update, which properly reflects the development of delay and disruption practice during the last 15 years or so. For example, the 2nd Edition (issued February 2017) still confirms at Core Principle 4 that parties *“Do not ‘wait and see’ regarding [the] impact of delay events...”* In other words, the Protocol recommends adopting a contemporary analysis wherever practicable.



Many factors make such contemporary analysis difficult, however, and the proper assessment and verification of the contractor's extension of time for completion under international construction contracts rarely happens as it should. For example:

- i) Construction projects are often extraordinarily busy, and the delivery team is focussed on 'getting the job built', not updating their programme. However, a properly constructed and managed programme is a vital dynamic management tool, so performing this task poorly is a fundamental mistake.
- ii) On very large, complex projects, the Employer's Requirements and approved design are rarely fully or properly developed when construction starts. As a result, the contractor's delivery team will be focussed on closing out design issues (often through the shop drawing process, though that is not what the process is actually for), such that it does not have the time or resources to assess the detailed, ongoing, impact of design delay on his programme.
- iii) I have often seen a contractor's unspoken policy, especially early in the project, not promote the identification and management of delay, even during its regular programme updates. It seems there may be a perceived conflict between the programme update being used to support positive cash flow and the clear identification of delay (and the proper management of time).
- iv) Contractual notice and programme provisions (e.g. NEC-style early warning notices or the latest versions of FIDIC) ought to proactively promote

foresight and the shared management of risk to the successful and timely delivery of projects. However, notices (and programme updates reflecting delays arising from the events notified) are often considered to be contentious, and to be avoided, rather than positive and proactive.

- v) Far too many contracts are amended to remove the engineer's (or Contract Administrator's, "CA"'s) duty to act impartially. This discourages the achievement of a proper balance between the employer and contractor, and increases the likelihood of a dispute becoming contentious.
- vi) Frequently, there is an absence of the prospective management of EOT for excusable employer risk events, possibly arising from a lack of such impartiality. The CA will often refuse reasonable EOT claims from contractors, requiring standards of proof not commonly found in legal proceedings, which creates significant risk (for both the CA and the employer) as it may ignore the CA's duty to act impartially and proactively under the contract, and it may ultimately be seen as unreasonable by a 3rd party decision maker (Arbitrator, Judge, etc).
- vii) There appears to be a general misunderstanding of how to properly manage EOT, or why time is so important under contracts. When coupled with the multitude of delay analysis methods available, this can lead to the contractor and the contract administrator both 'hiding' behind their respective analyses, rather

than properly using the programme to manage the delay-related risks to delivery (by agreeing sensible mitigation measures, awarding any reasonable and proper EOT due, and working together to achieve project success).

His Honour Humphrey Lloyd QC, when he was a Judge in the TCC London ([Balfour Beatty Construction Limited v The Mayor & Burgesses of The London Borough of Lambeth \[2002\] EWHC 597 \(TCC\)](#)), provided clear guidance as to what a contractor should expect to do when making time claims, or challenging the EOT award determined by the CA (which often fails to provide proper justification for the determination). Paragraph 30 of the Decision reads:

*"... the foundation [of the analysis] must be the original programme (if capable of justification and substantiation to show its validity and reliability as a contractual starting point...);*

*... [the analysis]' success will similarly depend upon the soundness of its revisions on the occurrence of every event, so as to be able to provide a satisfactory and convincing demonstration of cause and effect.";*

*... A valid critical path (or paths) has to be established both initially and at every later material point since it (or they) will almost certainly change... [and]*

*... Some means also has to be established for demonstrating the effect of concurrent or parallel*

*delays or other matters for which the employer will not be responsible under the contract..."*

In my view, the above instructions directly describe the TIA method. If applied correctly, substantiated by work records (rather than letters or notices which claim events occurred, masquerading as records) it fulfils the above criteria and the implied proof of causation.

In order to be successful, and taking account of the above, TIA requires a contractually correct, logic-linked, baseline programme; a series of properly updated programmes or actual progress information (with which to update the baseline programme); and, a selection of delay events, capable of being modelled within the programme.

A significant advantage of the TIA method (over a number of other methods) is that the critical path(s) can be determined contemporaneously, taking actual progress into account, while the delay impact is identified and modelled prospectively (close to the time the event is happening), subject to verification of the actual effects of delay events.

The various delay events are developed into fact-based fragnets (or sub-networks) which are introduced into the baseline programme (which must be updated to a point close in time to the impact date of any given event to allow the contemporaneous critical path ("CP") to be identified and assessed). As the CP will change or evolve through the delivery of the project, the process of "updating" is vital to take into account the effects of both historical

progress and any matters which might affect the future works (and critical path).

The impact of delay events should then be examined in two different ways: -

- Firstly, the updating and impacting process inherent in TIA demonstrates both the likely delay impact of historical (actual) progress and the impact of inserting prospective delay events into the analysis (both of which may, in differing ways, affect the completion date).
- Secondly, there should be a "backwards pass" looking at the actual impacts of the various events on the contractor's progress, considering and taking account of other factors such as activity resequencing, the redeployment of resources, or attempted mitigation or acceleration measures. Such measures are most often employed when, in the absence of an EOT or otherwise, the contractor seeks to avoid, or limit, its liability to the employer for damages associated with delay.



These two processes – the impacting of prospective delays in the TIA, coupled with the retrospective, factual analysis of the actual impacts of those delay events on the as-built critical path – allows for a clear demonstration and determination of culpability in each analysis or “update” period, looking both forwards and backwards.



In my view, the combination of a contractor not producing clear, fact-based, delay analysis coupled with a CA ignoring its proactive obligations for the determination of EOT (both of which should be present for the contemporaneous management of time), results in a significantly increased likelihood of a protracted and expensive time dispute, which often continues for months, or years, after the completion of the contract works.

## MORE INFORMATION

If you would like to find out more details about any of the subjects covered in this Ebriefing please contact DGA Group through the contact details below or at [DGAGroup@dga-group.com](mailto:DGAGroup@dga-group.com)

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