



Being Predictable and Avoiding TAR Over-runs

Graeme Walker, Topside Conference 2017 - 14th June 2017

Planning for Turnarounds

- Avoid Over-runs = Good Planning
 - *Front-end loading*
- BP TAR procedure follows milestone tracker
- Closely aligned to OGA guidance on preparing for TAR's
- Supports:
 - Rigorous preparation
 - Resource and Cost management

MILESTONE		
Phase 1 Identify & Validate	Identify and agree workscope	October
	Ops and HSE philosophies	↓
	Long-lead item ordering	May
Phase 2 Develop Workscope	IFA Workpacks	June
	Order Materials	↓
	Develop Procedures	↓
	Create HSE Plan	November
Phase 3 Optimise and Integrate	IFC Workpacks	December
	Major Job Reviews	↓
	Integrate/optimise schedule	↓
	CoW	↓
	Identify Execute team	↓
	Communicate plans	↓
	Deliver/transport materials offshore	May

Lessons from 2015 TAR's

- Track record of P90 delivery through 2010-2014 period
- To drive P50 performance and better:
 - **Scope selection** – select correctly and avoid growth
 - **Major job reviews** – accurate planning of critical jobs
 - **Ops plan** – Align operations preps to workscope and optimise resource
 - **TAR schedule** – challenge and optimise
 - **Execute team** - select the best team and communicate clearly
- Close-out requires TAR Manager approval

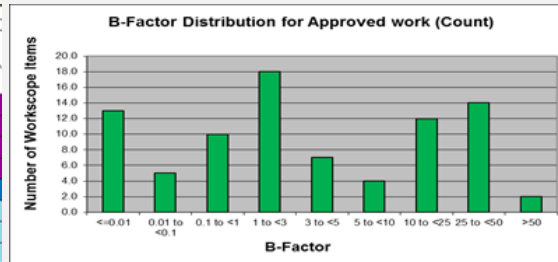


Scope selection

- Completed in Phase 1
- All scope scored
- Minimum threshold level set
- Criteria used for future growth requests

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Severity Level	Likelihood							
	1	2	3	4	5	6	7	8
A	0	0	0	0	0	0	0	0
B	0	0	0	0	0	0	0	0
C	0	0	0	0	0	0	0	0
D	0	0	0	0	0	0	0	0
E	0	0	0	4	2	9	2	7
F	0	0	0	0	1	5	0	38
G	0	0	0	0	1	1	0	2
H	0	0	0	8	0	4	0	0



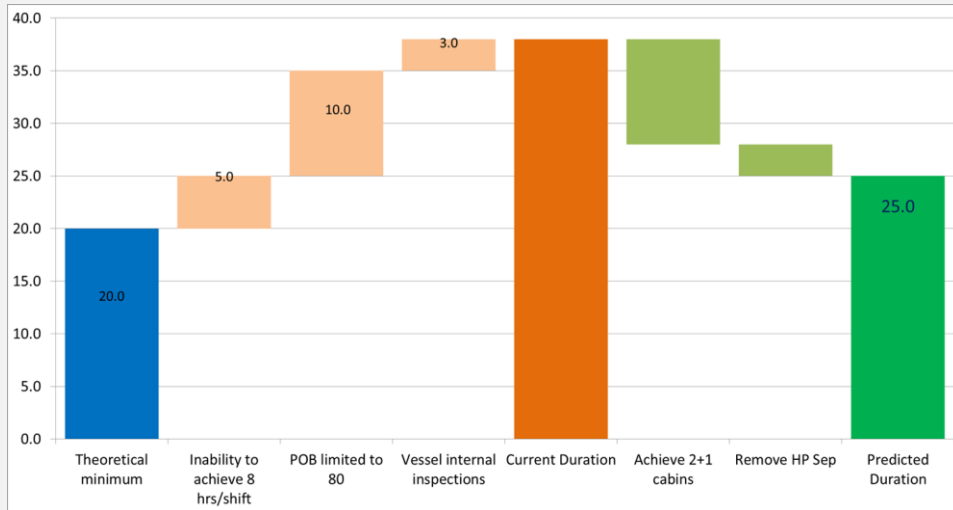
Accurate planning - workpacks and ops

- Major jobs selected early
- Major job reviews conducted with experts
- Peer-to-peer review for other workscope
- Ops plan is specific to workscope
- Philosophy set early
-and reviewed as a 'major job'

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Schedule optimisation

- Theoretical vs Current vs Predicted
- Agree action plan



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Execution team

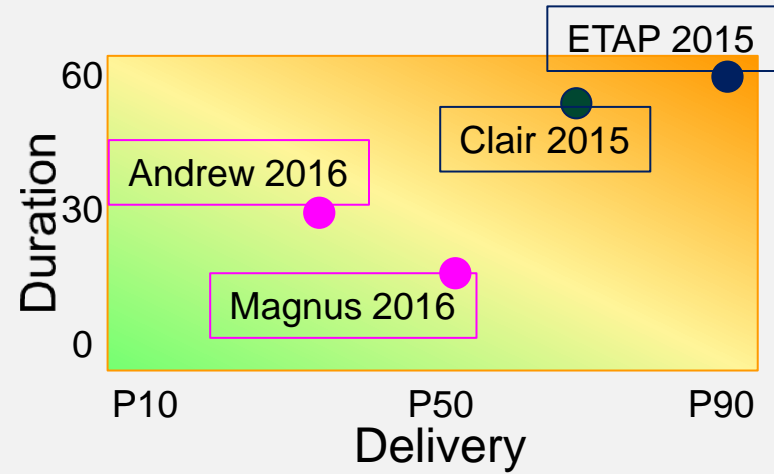
- Use the best from your Region
 - *Agree R&R's early, plus possible names*
 - *Agree names early in Phase 3*
- Target specific skills
 - *Experience*
 - *Directive, organisers*
- Define daily cadence – to maximise wrench time
 - *Optimise meetings, permit issuing priorities, onshore support*

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Results



- Improved performance in 2016 vs 2015
 - *Duration* , *Delivery*
- Wrench time improved to 8 hours/shift
- Full scope delivered
- Churn reduced
 - *Growth reduced*
 - *Fewer interventions during Execute*



Summary



Good planning avoids over-runs

Be systematic

Get critical factors right

- Use the best you've got
- Take the time to test adequacy
- Don't settle for mediocre



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