

BMM Warning

Contents

Warning – know your biomathematical model and use it appropriately!.....	3
FAID Standard BMM	3
FAID Quantum BMM	4
Strengths of each model	4
Recommended Reading	5
Contact InterDynamics.....	5

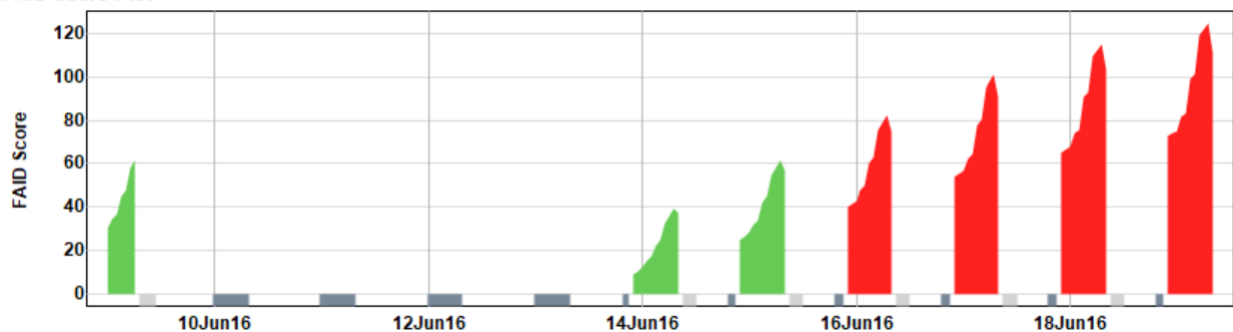
Warning – know your biomathematical model and use it appropriately!

Not all biomathematical models are the same and will differ in their sensitivity to different work patterns and other parameters. The user of a biomathematical model should be familiar with how it works, what it is sensitive to, its strengths and weaknesses and suitability for evaluating the work context in question.

FAID Standard BMM

One of the strengths of the FAID biomathematical model is the inclusion of the accumulated contribution of work hours for the past 7 days. This component of the model is particularly helpful in highlighting the increasing fatigue exposure over consecutive work periods, particularly night work, as shown below.

FAID Score Plot



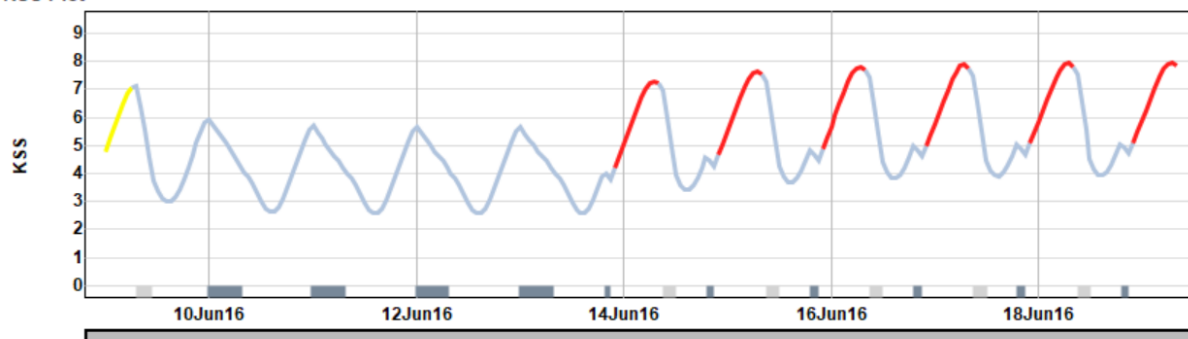
However, this is also a weakness when evaluating very intermittent work periods or work periods immediately after a long break. As shown above the first night shift after multiple days break has a low score.

FAID Quantum BMM

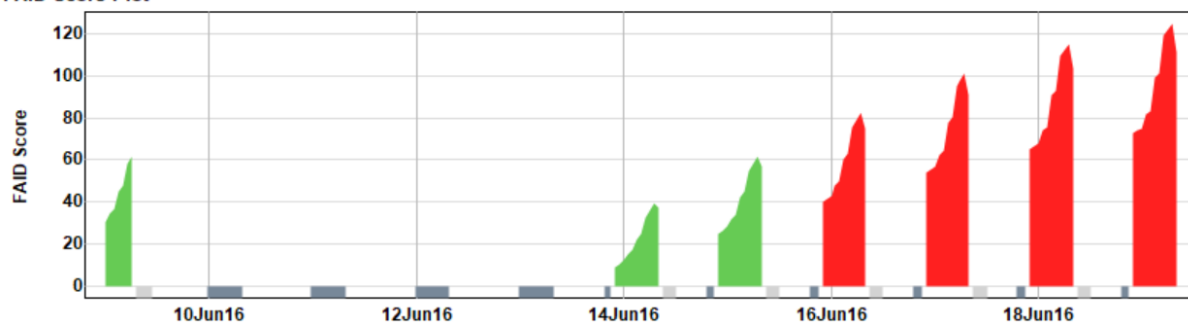
A strength of the FAID Quantum biomathematical model is its sleep prediction and responsiveness to disruption of sleep patterns and loss of night sleep opportunity.

By contrast, the FAID Quantum KSS results for the same pattern of work highlight the significant fatigue exposure for the first night shift after multiple days break due to the significant sleep disruption.

KSS Plot



FAID Score Plot



FAID Quantum KSS score does not however portray the significance of cumulative work hours in the manner of FAID.

Strengths of each model

FAID Standard model is particularly useful evaluating:

- Multiple shifts
- High work hours within a week

FAID Quantum model is particularly useful evaluating:

- Intermittent work periods
- Work after long breaks

Recommended Reading

For additional information on the use of BMMs, particularly as used in FAID Quantum software, we strongly recommend the following documents:

- [What you need to know about FAID Quantum](#)
- [Getting Real About Biomathematical Fatigue Models](#)

Contact InterDynamics

Please contact InterDynamics for further advice if you are unsure about the suitability of FAID Quantum for your situation.

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