

FORAC

(Flight Operation Risk Assessment Calculator)

- An app for pilots

Presented by
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EVA Airways

FORAC is a supplementary tool of FORAS.
It is developed for pilot whose airlines don't have
such infrastructure to set up the FORAS system.



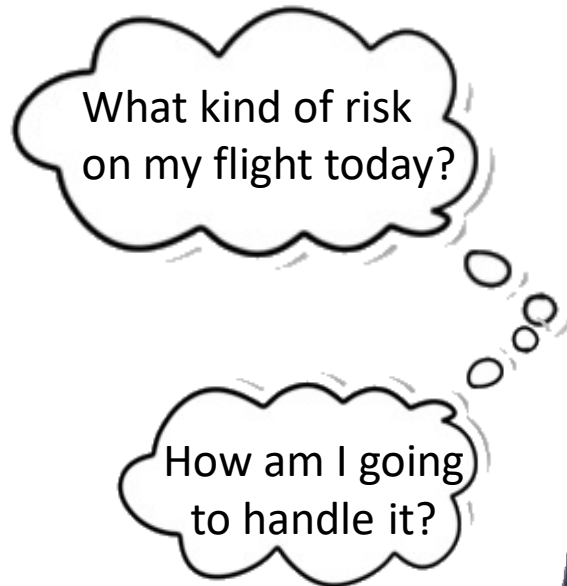
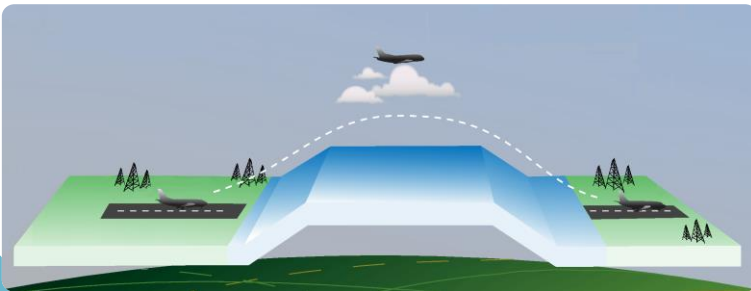
FORAS

-A tool to make your SMS great!

Presented at
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Presented by
Danny Ho, EVA Air
&
Greg Marshall, Flight Safety Foundation

FORAC is a tool for pilots to conduct the flight operation risks assessment before departure via manual data input.



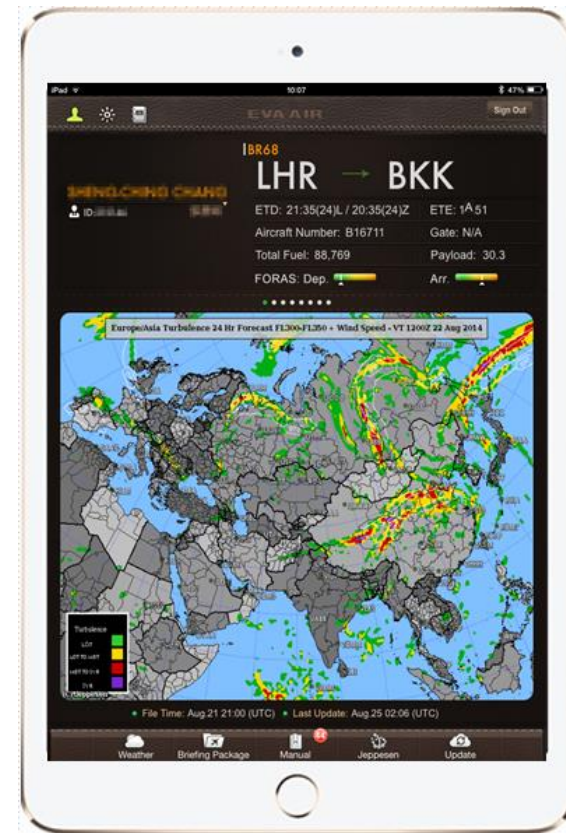
What FORAC App can do for pilots?

a) Risk assessment on daily operations.

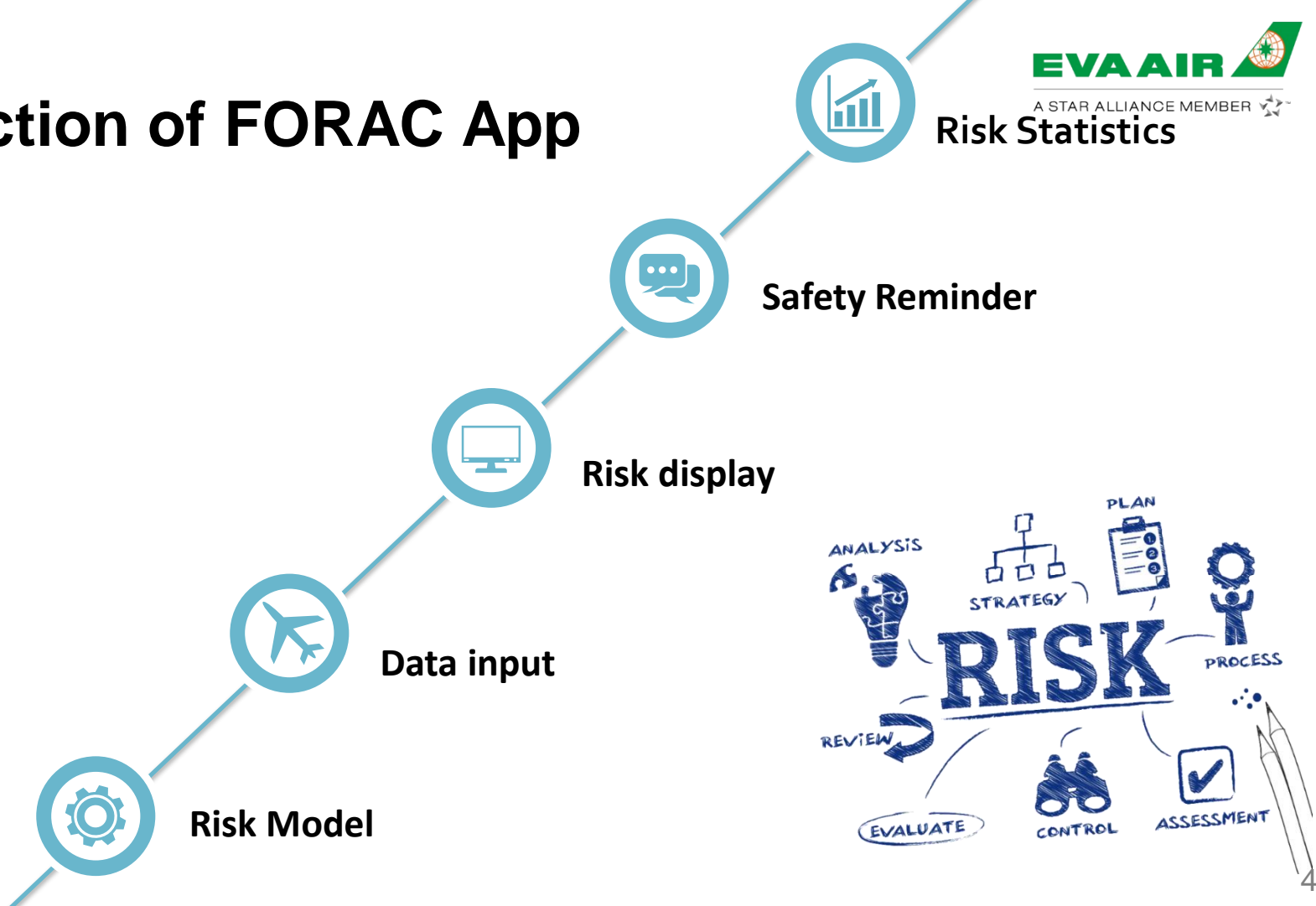
*This app could quantify the risk attributes before departure by providing **Departure Risk Value (DRV)** and **Approach & Landing Risk Value (ALRV)** for situation awareness.*

b) Providing timely safety reminder(s) for risk mitigation.

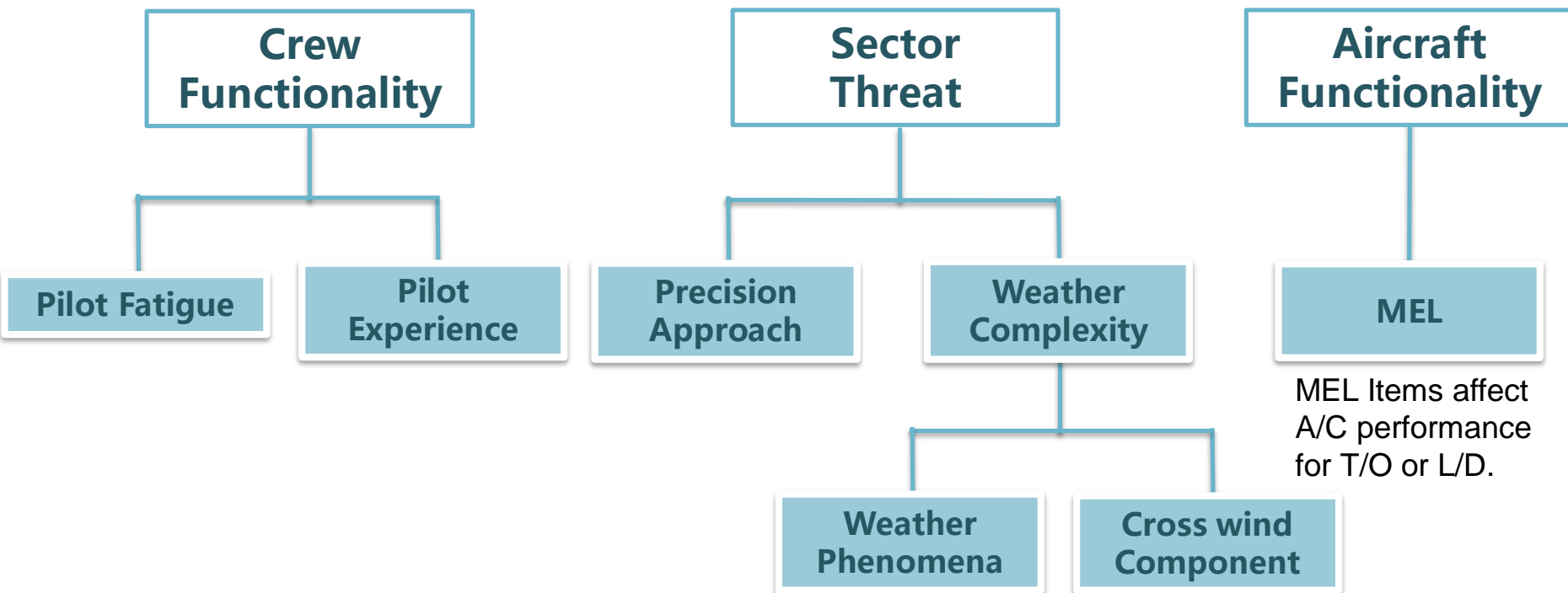
c) Statistics & Trend analysis of risk exposures.



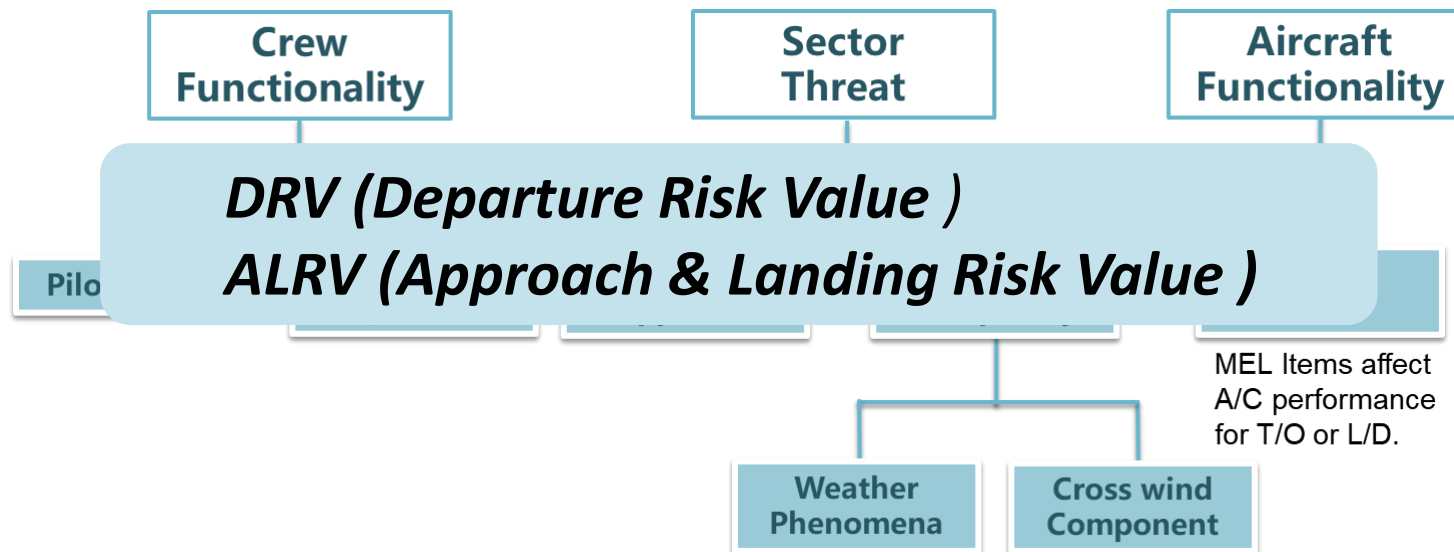
Introduction of FORAC App



Risk Model



Risk Model



Data input

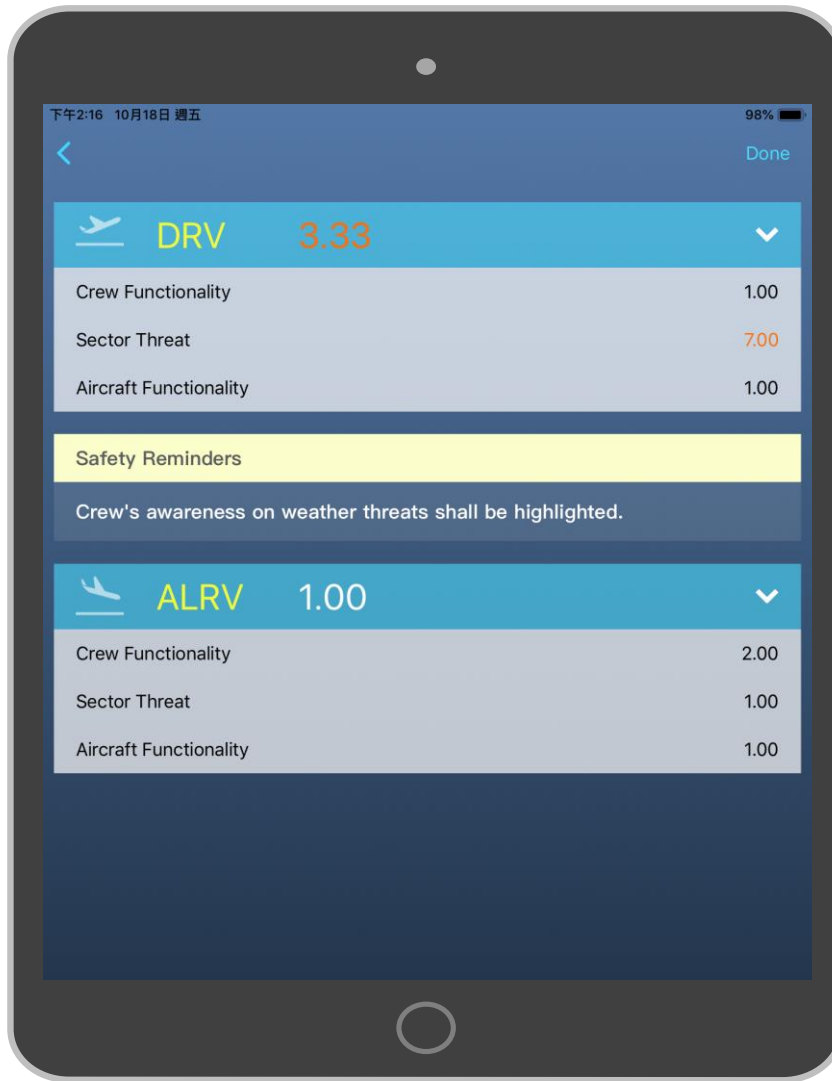
Pilots only need to take
3-5 minutes to key in
20+6 items of
operational data.

Number of Sectors on This Duty		5-8 ▼
Flight Information		Departure Arrival
Crew Complement		Single ▼
Weather Phenomena	Good ▼	Good ▼
RWY Direction (deg)	240	53
Wind Speed (kt)	12	12
Wind Direction (deg)	360	15
Precision Approach		<input checked="" type="radio"/> Yes <input type="radio"/> No
Special Airport		<input type="radio"/> Yes <input checked="" type="radio"/> No
Aircraft Functionality		Departure Arrival
MEL Items Affect A/C Performance	No MEL item ▼	No MEL item ▼

Risk display



Risk display & Safety Reminder



Example

	DEP	ARR
CM1		
Total Flight Hours	≥ 3000	
Total Landing	≥ 500	
Type Landing (Sector)	≥ 500	
Crew Alertness	Good	
Last visit into the airport	≤ 3 months	≤ 3 months
Number of Sectors on This Duty	< 24	
Pre-7 days flying hours	< 12	
Pre-7 days flying sectors	1-4	



	DEP	ARR
CM2		
Total Flight Hours	≥ 3000	
Total Landing	≥ 500	
Type Landing (Sector)	< 100	
Crew Alertness	Good	
Last visit into the airport	≤ 3 months	≤ 3 months
Number of Sectors on This Duty	< 24	
Pre-7 days flying hours	< 12	
Pre-7 days flying sectors	1-4	

	DEP	ARR
CM1		
Total Flight Hours		≥3000
Total Landing		≥ 500
Type Landing (Sector)		≥ 500
Crew Alertness	Good	
Last visit into the airport	≤ 3 months	≤ 3 months
Number of Sectors on This Duty		< 24
Pre-7 days flying hours		< 12
Pre-7 days flying sectors		1-4



	DEP	ARR
CM2		
Total Flight Hours		≥3000
Total Landing		≥ 500
Type Landing (Sector)		<100
Crew Alertness	Good	
Last visit into the airport	≤ 3 months	≤ 3 months
Number of Sectors on This Duty		< 24
Pre-7 days flying hours		< 12
Pre-7 days flying sectors		1-4

Sector Threat & Aircraft	DEP	ARR
Weather Phenomena	Good	Moderate
RWY Direction	53	344
Wind Speed	15	26
Wind Direction	17	200
Precision Approach		NO
Special Airport		NO
MEL items affect A/C Performance	No MEL item	No MEL item

DRV 2.33
ALRV 3.00

Safety Reminder :

Crew's awareness on weather threats shall be highlighted.

Vigilance on flight path management.

Risk Statistics

- Trend analysis
- Safety Reminders
- Top 10 Airports
- Sector Threat Statistics



FORAC

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Conclusions

1. This App is available for trial on iOS system, if you are interesting to join this trial, you could download it free of charge.
2. Android version is under development and will be available on Q1 2020.
3. Your feedback is welcome, by sending comments via the questionnaire on the App to assist us for better improvement.



The purpose of life is to discover your gift.

The work of life is to develop it.

The meaning of life is to give your gift away.

— David Viscott



“Sharing to make the world great!”

Thank you!

