



NEW ZEALAND DEFENCE FORCE CASE STUDY

New Zealand Defence Force (NZDF) EMAR Implementation

STATEMENT

Baines Simmons Limited was invited to support the NZDF in implementing the European Military Airworthiness Requirements (EMAR) locally contextualized as NZDF Defence Aviation Rules (DARs). Covering the Royal New Zealand Air Force's (RNZAF) Initial and Continuing Airworthiness domains, the Kiwis uniquely sought to integrate their Operators within the same rule set and requested Baines Simmons support in adopting the underlying philosophies of this contemporary aviation safety system.

Baines Simmons Services

- Executive Leadership Development
- Training
- Consultancy
- Programme Management & Mentoring

CLIENT PROFILE

A small antipodean nation with large maritime responsibilities and a global engagement reputation, New Zealand has a unique view of the world. Similarly, the expeditionary-focused NZDF has developed an international reputation for getting the job done in a range of settings and circumstances.

The RNZAF provides New Zealand with responsive and effective air power to meet the national interests of a globally-roaming Pacific nation. Agile and adaptive, the Kiwi Air Force provides versatility to NZDF's range of operational contexts. With primary roles of airborne surveillance and reconnaissance, air mobility, and limited combat capability the RNZAF is a well-equipped, modern and dynamic Force.



THE CHALLENGE

Recognising the need to stay up to date with industry and international aviation best-practice, the NZDF identified EMAR as the solution and had developed their own contextualized DARs. At the time of seeking Baines Simmons' support, they had established an independent Defence Aviation Authority (DAA) and set up governance and programme management structures to deliver the necessary change.

Against a risk of becoming bogged down in the pursuit of a 'perfect' system, Baines Simmons' extensive EMAR knowledge and international experience was seen as the perfect performance fit. With the aim of maximising the organisational benefits of adopting EMAR, Baines Simmons were contracted to deliver an initial Gap Analysis and subsequently providing targeted development support across the majority of EMAR areas.

Additionally, Baines Simmons' SMARRT range of tools added significant value to the post-Gap analysis planning process, in identifying the changes needed to documentation and organisation structure, but more importantly changes in thinking and behaviours.

Programme complexity necessitated a novel contracting approach comprising of seven discrete 'tranches' of work providing financial risk mitigation for the NZDF, while also optimising Baines Simmons resource planning and travel time. The ultimate objective of the programme was to support the NZDF to get to the EMAR 'starting line' of a 'Present' and 'Suitable' framework, with a recognition that continuous improvement and learning would then fine-tune the chosen means of compliance.

Multiple challenges were encountered during the programme, including COVID-19 restricted travel, NZDF resourcing constraints and operational pressures. Weekly relationship management meetings between the combined NZDF and BSL programme team became essential, in adapting and overcoming constraints and barriers, to keep the implementation on track.





Overall, the agreed plan incorporated sufficient flexibility and planning certainty to allow NZDF's Business as Usual (BAU) to continue while enabling efficient and effective programme implementation and a value adding introduction of the DAR system.

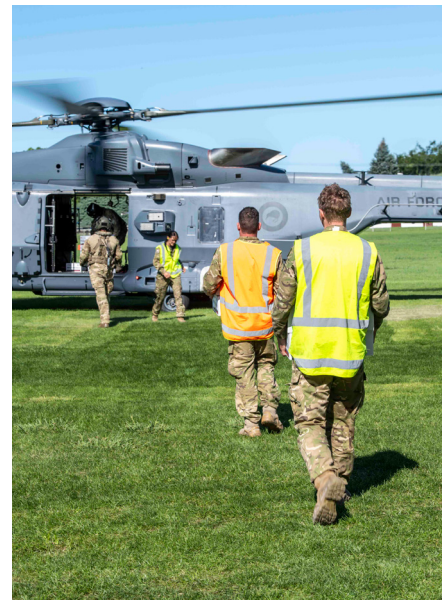
THE SOLUTION

From the outset, the Baines Simmons team supported the Senior Leaders of the NZDF to recognize both the tangible and intangible benefits of the new system, generating a pull for the change and a focus on building competent organisations and robust practical processes within the framework.

Baines Simmons were able to anticipate and prepare for challenging philosophical changes including the EMAR embedded concepts of Accountability, Responsibility, Independent Assurance and Type Certificate Holder functions. Stakeholder and change management and an active, engaged approach with the internal programme team kept the overall programme on track and dealt with arising challenges as they emerged.

With the contractual basis of the relationship established, Baines Simmons delivered foundational remote-training to gauge and inform key stakeholders on the impending contemporary airworthiness environment and its benefits. A bespoke course was developed for the DAR Part 119 – Military Air Operator, something not specified in EMAR but adopted by the NZDF as a natural extension of their desired contemporary aviation safety system.

On the NZDF's side, a Governance Board co-chaired by the Air Component Commander (Head Operator) and Deputy Chief of Air Force provided highest level buy-in and direction to the central programme team, led by a Wing Commander (OF4). This central control held RNZAF project managers accountable to the agreed timelines and ensured programme delivery,





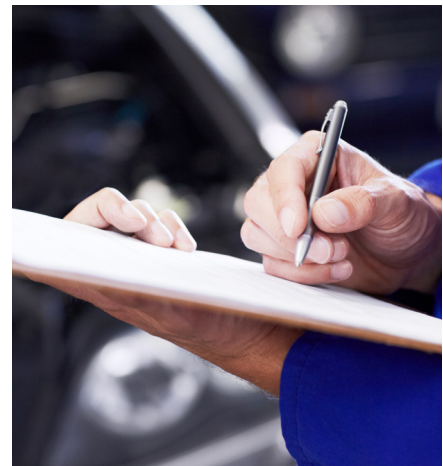
Small internal project teams then delivered the various EMAR Part organisation expositions (M, 21, 145, 147, 119). With Baines Simmons' guidance and support.

Baines Simmons supported the customer with in-country expertise at the right time to supply the skills needed as well as the right relationship fit for the NZDF. With ownership recognised early on as key to success, Baines Simmons Subject Matter Experts supported drafting of documents, provided advice and guidance, but remained cognisant of the need for the internal project teams to ensure that final products reflected the realities of RNZAF practices.

Against the contract construct of support 'tranches', agile deliverables were defined and agreed, then measured and reported to the monthly NZDF DAR Implementation Governance Board. Over 18 months, the seven agreed tranches were delivered to ensure suitable maturity development for each facet of development. Additionally, Baines Simmons in-country support was planned to coincide with initial exposition development, pre-approval submission to the DAA, and then again at the critical times of organisation 'Power-Up' and 'Go-Live'.

Throughout the programme, Baines Simmons' support was critical in advancing the overall organisation's understanding and interpretation of the intent of the DARs (and background EMAR), shaping what optimal compliance looks like, building on the experience gained during other national implementation programmes. Along these lines and at the NZDF's behest, Baines Simmons continued to deliver awareness and in-depth training to various parts of the NZDF including:

- Widespread foundation rule and intent knowledge;
- Senior Leadership education and assurance;
- Accountable and Responsible Manager coaching;
- DAA regulatory oversight maturity development;





Of particular note was the work undertaken with the DAA to aid them in transitioning from an audit-focused organisation to the behaviours expected of a regulator. These Baines Simmons workshops covered topics such as; changes in type design and repairs, maintenance programmes, aircraft airworthiness reviews, root cause analysis, and oversight tools and techniques.

At programme completion in mid-2023, Baines Simmons had played an essential integrated role in the successful development of the NZDF's entire engineering organisation, encompassing:

- Defence Aviation Authority;
- Military Type Certificate Holder (still progressing) – Part 21J;
- Military Design Office – Part 21J;
- Military Air Operator – Part 119;
- Continuing Airworthiness Management Organisation – Part M;
- Approved Maintenance Organisation – Part 145;
- Maintenance Training Organisation – Part 147 and;
- Maintenance Engineer Licensing (still progressing) – DAR 66

With the initial 'Build' work largely complete, the NZDF-Baines Simmons relationship has been strengthened with the signing of a through-life-support style contract that provides access to help-desk services, remote coaching and training delivery and follow-on consultancy. This will likely see Baines Simmons return to New Zealand in 2024 to review DAR Implementation progress and measure continued internal development to ensure maturity has developed into 'Operating' and 'Effective'.

The NZDF's programme team and Governance Board remain in place and focused on maturing the established DAR framework over the next 12 months. As a natural progression they are now taking the next step and tackling the implementation of Part 66 Military Aircraft Maintenance Licensing into their DAR organisations.





CONCLUSION

This implementation programme has been one of the most diverse and complex that Baines Simmons has supported both in terms of the scope of change (full technical and operational adoption), period of change (speed and COVID-19 challenges), and location of the customer!! However, the NZDF's feedback has highlighted the value that Baines Simmons' flexibility, extensive experience, and pragmatism has added to the successful outcome for this programme in delivering an EMAR-based contemporary aviation safety system.

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Baines Simmons has provided an excellent sounding board not only for what good looks like but also for expert advice and perspectives when we've needed to tailor an approach around some of our unique and at times demanding requirements.

Ian Mower, Air Commodore,
Deputy Chief of Air Force

