



Te Matataua

The Scouting Party of Air Power

RNZAF Air Power Development Centre Bulletin

Issue 24, September 2018

New Zealand's Maritime Extent

Air Surveillance plays a critical role in safeguarding New Zealand's borders and sovereign territory

It may come at a surprise to some, but New Zealand's adjacent maritime extent is over 20 times larger than the land mass we live on. And, we have sovereign rights to seabed resources and fisheries within that 5.8 million square kilometres of sea. In fact, the Realm of New Zealand's total maritime territory is even larger when the Ross Dependency of Antarctica; and Pacific Ocean maritime areas of Tokelau, Niue, and the Cook Islands are included.

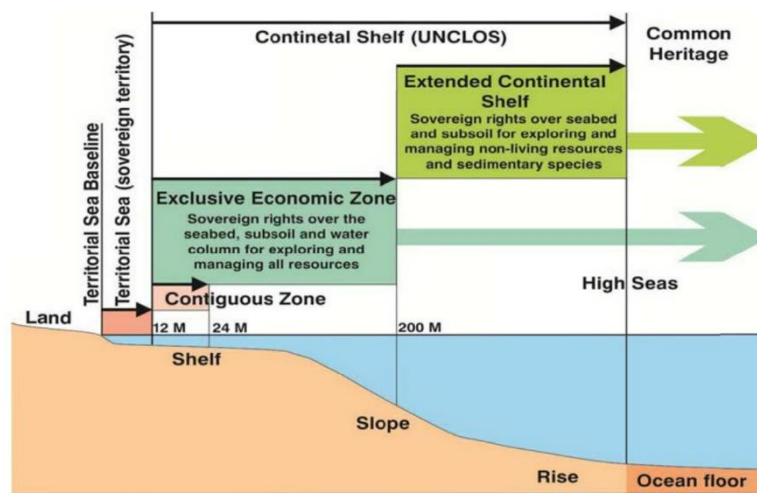
Monitoring and protecting this expansive area takes considerable time and resources of the NZDF, Police, Customs, and Fisheries departments. With the air power advantages of height, speed, and reach, it is cost effective and efficient for the RNZAF

to monitor the region. For example, the distance to the horizon for an aircraft flying at 10,000 feet is roughly 123nm (~230km), which makes a large portion of the sea visible to its sensors. Thus, air surveillance has been a vital role of the RNZAF since its inception, and it will continue to be so in the future.

Readers of Te Matataua will be well aware of the Government's announcement to purchase four Boeing P-8 Poseidon maritime patrol aircraft as a replacement for the six aging P-3 Orion aircraft. Also, the Minister of Defence recently announced that a complementary surveillance capability will be investigated to undertake local maritime

surveillance to allow the P-8 to focus on sea control operations. This idea harks back to when the RNZAF flew maritime styled Fokker F-27 aircraft until the 1990's. They were used to provide navigator and air electronic operator training; and maritime surveillance of southern coastal regions of the Exclusive Economic Zone (EEZ). However, the future complementary surveillance capability may take

the form of one, or a mix of: manned aircraft, unmanned aircraft, and Earth observation satellites. The P-8 and the proposed complementary capability investments are significant for New Zealand. So, with that in mind, what constitutes New Zealand's maritime zones the Government wants to monitor and protect?



New Zealand's maritime zones

There are four main maritime zones, and each zone confers different sovereign rights in terms of resources and jurisdiction. International waters are governed by the United Nations Convention on the Law of the Sea (UNCLOS), and territorial waters are governed by national laws. Measured from the land-sea boundary, the four zones extend into the sea as follows (nominal associated rights are simplified for expediency):

- **The territorial sea** extends 12 nautical miles (nm) (~22km) from the low water baseline. The territorial sea is sovereign territory, and civil laws enforceable on land extend into this sea area.

Note: this version updates an error that stated the EEZ extended 212nm from the baseline. The EEZ extends 200nm from the baseline. The error is regretted.

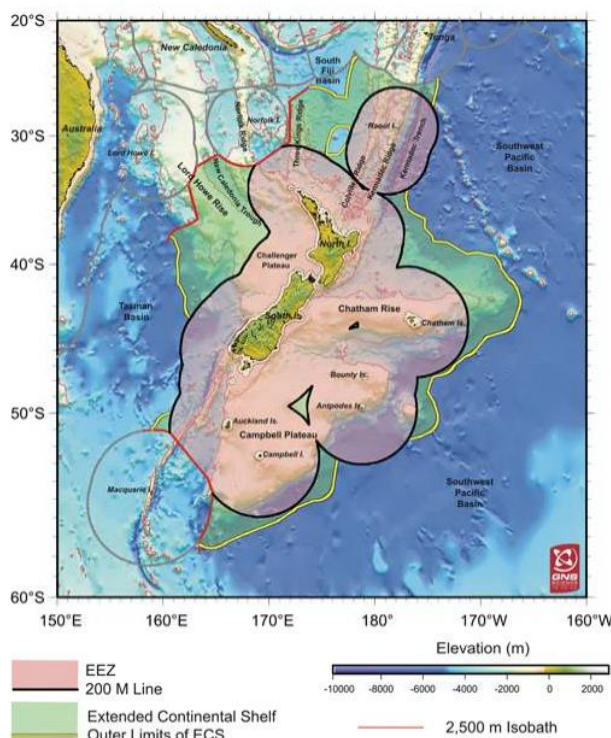
- **The contiguous zone** extends a further 12nm from the territorial sea, extending into the EEZ. Vessels can be stopped if they are suspected of violating certain laws in this zone.
- **The EEZ** extends 200nm from the low water baseline. New Zealand has rights to resources on the seabed, and fisheries in the sea column above, within the EEZ.
- **The Extended Continental Shelf (ECS)** is the maritime territory from the outer edge of the EEZ to the outer limits of the continental margin – which is marked by a steep drop to the deep ocean floor. New Zealand has rights to certain sea bed resources, but not the fisheries within the ECS.

What resources are under the seabed that require our vigilance to protect? Quite a bit in actual fact, though it is hard to recover mineral deposits from the sea floor. However, technology and the will of governments to exploit seabed resources is accelerating rapidly. The National Institute of Water and Atmospheric research (NIWA) is doing a lot of work to map and identify seabed deposits, and ecosystems research in respect of fisheries management. Currently, fishing within the EEZ earns over \$1.5 billion annually, and the economic potential of seabed mineral and energy resources exceeds \$500 billion. There is a clear economic and environmental imperative to monitor and protect New Zealand's maritime territory.

Energy resources include: oil, gas, and methane hydrates. Minerals include: sulphide deposits containing copper, zinc, barium, and gold; iron sands, phosphates, aggregate sands, manganese, and cobalt.

Ultimately, airborne surveillance allows the Government to understand the maritime domain,

thereby allowing them to make decisions and respond to threats and challenges, such as: search and rescue, border security, bio-security, and resource protection. The Strategic Defence Policy Statement of 2018 notes increasing resource competition and scarcity in the maritime domain, necessitating a domestic ability to monitor, deter, and protect national interests. But, this is difficult to achieve considering the size of New Zealand's EEZ and the country's limited patrol resources. As far back as 2001, the Government's 'Maritime Patrol Review' (MPR) concluded that New Zealand needed a ten-fold increase in civil surveillance and deterrent effort, of up to 3000 hours of maritime flying per year to strengthen the national security effort. While the amount of increased flying hours required today may be up for debate, the apparent need for increased surveillance is not. This need underpins the Minister of Defence's announcement of the complementary surveillance capability.



New Zealand's EEZ and ECS

Key Points

- New Zealand has sovereign rights to the resources of its adjacent maritime zones.
- Air surveillance plays a critical role in surveillance of the maritime area.
- The P-8 Poseidon and the complementary surveillance capability will ensure RNZAF maritime capability well into the future.

References

- Stagpoole, NZ Continental Shelf and Maritime Jurisdiction, 2013.
- Land Information New Zealand website.
- Clark, M.R., Rouse, H.L., Lamarche, G., Ellis, J.I., Hickey, C. (2017). Preparation of Environmental Impact Assessments: General guidelines for offshore mining and drilling with particular reference to NZ. NIWA Science and Technology Series No. 81.

APDC Update

The Chief of Air Force Essay Competition is open to all NZDF employees. More information can be found on the APDC webpage on the intranet.

Disclaimer: The views in Te Matataua are not necessarily those of the RNZAF

E-mail: ohapdc@nzdf.mil.nz