

**RNZAC ASSOCIATION
NEWSLETTER #221 June 2023**

Meetings Happy Hour: Thursday 6 July 2023 at 1700 hrs at the Papanui RSA.

Whose is it?



QAMR

The beginning of June saw Scots Squadron being put to the test in the wet conditions of the Pureora Forrest Park. Exercise Timber Trooper was run over four days. On day one, they were divided into small teams and assessed their individual personality traits. They then undertook two mountain bike rides totalling 95 kms. On day four they were woken at 0430 to receive the final task, a 42km team move by foot to the extraction point.





On Thursday 8th Jun QAMR seized a window of opportunity during battle prep for Ex TS to attack the Linton Camp con course head on in an inter unit showdown put on by the 1 Bde PTI's.

QAMR entered 1x team of 10, with 2 reserves and a manager (Staff M). They rolled through in the morning to place in the top 5 shoot out for the afternoon. This saw QAMR earn 2nd place overall for the teams event.

The team displayed share grit and determination throughout the day and finished with a sound performance they should all be proud of.

Ake ake, Kia kaha.

Today [12 June] the Regiment welcomed its newest recruits from basic RRF 410.

They were brought to the RNZAC Memorial and presented their RTR badges by the Regiment Sergeant Major and the Training Sergeant Major, before beginning their intro to the Regiment.

After some leave they will be heading to Combat Corps Training in Burnham, where they will join their infantry course mates for the intense 17 week course.



16 June NZ Army: Forming Connections Queen Alexandra's Mounted Rifles, NZSCOTS Squadron took their junior soldiers on a development tour through Royal New Zealand Navy and Royal New Zealand Air Force bases. Their mission to broaden junior soldier understanding of the wider NZ Defence Force and enhance their soldier knowledge.

The itinerary was packed with cultural and technological exposure, showcasing the Navy and Air Force. Here are some highlights:

Devonport Naval Base:

- Base tour and familiarisation
- Warm welcome at Te Taua Moana Marae
- Exploration of the Damage Control Unit, Navy Bridge Simulation Centre, and Seaman Training Facility, with an impressive RHIB simulation demonstration

Air Force Bases Whenuapai and Ohakea:

- Base tours and familiarisation
- Visits and briefings at Ardmore range and Waikato Mounted Rifles (QAMR's 4th Reservist Squadron)

- Witnessing aircraft and gunnery simulations at the Dome Simulation Centre at Ohakea
The tour also included morning fitness sessions at each of the service base gyms.



On 22 June there was a farewell for two long serving members of the RNZAC.

LTCOL Barker and LTCOL Beck were farewelled by members of the Corps and members of the Regiment. Both served over 30 years and have been strong supporters of the Unit and RNZAC.

It was a good night had by all and the Regiment wishes them all the best in their future endeavours.

Admin & Log

Attached to the newsletter is a letter from the Chair of the RNZAC History Project. Please take the time to read it.

Answer: USA Abrams X

America's next main battle tank may be a slimmed-down, high-tech version of the iconic Abrams

America's next main battle tank may be a lighter but more high-tech version of the M1 Abrams.

General Dynamics, which builds the Abrams, recently unveiled an updated version of the M1. In addition to being 20 tons lighter than the most recent version, the M1A3, the Abrams X features an unmanned turret and a hybrid-electric engine.

Though the media has dubbed the Abrams X a "next-generation tank," that's not exactly accurate. The Abrams X is really a technology demonstrator. It began as an internal General Dynamics research project to show how new technologies could be applied to a new tank or retrofitted onto existing tanks.

Rather than a next-gen armoured vehicle, the AbramsX is more of an interim design to span the gap between the Cold War-era designs that still comprise the world's tank fleets and the true next-generation vehicles that will probably be fielded closer to 2050.

Nonetheless, the Abrams X is a working weapon. "It drives around, it fires, and it performs the functions of a tank," Tim Reese, director of US business development for General Dynamics Land Systems, told Insider. "It's not just a static display."

The diet M1

Tank design is a balance — and a trade-off — between three factors: firepower, protection, and mobility. For the Abrams X, the biggest goal was addressing a growing problem with the M1, of which more than 10,000 have been built since 1979.

The Abrams has always been a hefty tank. Even the early M1A1s weighed about 60 tons — compared to Russia's 45-ton T-72 and China's 55-ton Type 99A — but the latest Abrams weighs closer to 80 tons due to upgrades like the Trophy Active Protection System designed to shoot down incoming anti-tank weapons.

However, "the M1A2 SEP v2 and v3 overall weight growth with full combat load and Trophy APS has introduced transportability and recovery challenges," the Pentagon's chief weapons inspector warned in a 2021 report.

Indeed, the latest Abrams is now so heavy that it can't be towed by Army recovery vehicles, which means damaged or broken-down tanks might have to be left behind on the battlefield.

Enter the Abrams X, which is the M1 on a diet. While closely resembling the older models, the new vehicle only weighs 60 tons. Reduced weight offers numerous advantages, including the ability to use bridges that would collapse under a heavier vehicle.

Abrams X also fits with the Army's new Multi-Domain Operations doctrine. After decades of focusing on counterinsurgency, the new approach envisions large-unit mechanized operations against near-peer foes such as Russia and China.

The Abrams X cut weight with a series of interrelated upgrades.

The turret is smaller, which means less heavy armour plating. "Reducing the weight on the Abrams, which was really our primary design goal, required reducing the weight of the armour in the turret," Reese said.

The turret can be smaller because it is unmanned, with the crew nestled inside the armoured hull. Using automation — including an autoloader for the cannon — allows the crew to be reduced from four to three, who now sit side-by-side in the hull while monitoring multi-panel displays.

Shrinking the turret "generated some weight savings right off the bat," Reese said.

The Abrams X replaces the M1's efficient but notoriously fuel-guzzling AGT 1500 gas-turbine engine with a hybrid-electric engine more reminiscent of a Toyota Prius than conventional tank power plants.

General Dynamics claims the new engine slashes fuel consumption by 50%, improves reliability and ease of maintenance, and allow the tank to operate its electronics — and even perform some limited movement — using quieter battery power.

The Abrams X retains a 120 mm cannon as its main armament but replaces the current gun with the lighter XM360 originally developed for the failed Future Combat System. It also has

a Kongsberg RS6 remote-controlled weapon station with an XM914 30 mm cannon and a 7.62 mm coaxial machine gun.

As befits a 21st-century tank design, the Abrams X has some cutting-edge features. It is armed with six Switchblade 300 loitering munitions, known as "kamikaze drones." It also has an artificial-intelligence program — called "Katalyst" — that can help the crew identify and prioritize targets, navigate, and predict future maintenance.

If this sounds familiar, Russia's T-14 Armata, unveiled in 2015, also had an unmanned turret, a crew of three in the hull, and onboard drones. However, Russia's army has bought few of them, in part due to manufacturing difficulties. Notably, despite Russia's huge tank losses in Ukraine, it has not deployed the Armata there.

"The difference between us and the Armata is that ours works," Reese said.

Now vs. later

As with any tank design, there are tradeoffs. One reason the AbramsX is lighter is simply because of less armor around the unmanned turret. General Dynamics says it is up to the US government to decide the level of protection.

"If you keep the armor protection at a very minimal level, that's how we achieve the 60 tons," Reese said. "If you dial the armor protection all the way back up to what it is on an M1 v3 today, the weight goes up above 60 tons."

To its credit, General Dynamics is not touting the Abrams X as what a next-generation tank should be but rather as a demonstration of what capabilities are available.

"It's showing the art of the possible with existing technology," said Mark Hu, manager of US business development for GDLS. "What you can get now vs. waiting for 'unobtainium' that may finally become available in 2050 or 2068."

Whether the US Army will invest in a new tank remains to be seen.

Images of burning Russian tanks in Ukraine has led to numerous predictions of the tank's obsolescence. Those predictions are far from true, though they raise questions about the tank's role in the future.

If the Army does want the Abrams X, it can have it quickly. "Essentially, all of the capabilities on AbramsX will be ready to build into a new main battle tank, or retrofitted into the current Abrams fleet, within 18 to 24 months," Reese said.

Michael Peck Nov 7, 2022 BusinessInsider.com

Humour

Always happy to help

A young woman was standing outside her car weeping. A soldier walks up and asks what the problem is.

It turns out she's locked her keys in the car.

"Simple," says the soldier and drops his trousers, takes them off, rolls them into a ball and rubs them on the door.

The door pops open.

"How did you do that?!" exclaimed the young woman.

"Easy," says the soldier, "These are my khakis."

Joke #4

A visitor, returning to Kuwait for the first time since the Gulf War, was impressed by a sociological change. On previous visits, she noted that women customarily walked about 5 paces behind their husbands.

She observed that the men now walked over 20 paces BEHIND their wives! She approached one of the women for an explanation: "What enabled women here to achieve this marvelous reversal of roles?" "Land mines," replied the Kuwaiti woman.

Joke #14

A Soldier and a Marine were sitting next to each other on a plane. The Marine took off his boots and began to stretch out. The soldier swore under his breath at the Marine and told him he wanted to get up and get a drink.

The Marine insisted that since he was in the aisle seat he would get it for him. The Soldier agreed, and when the Marine went to get his drink he started spitting in the Marine's boots.

When the the Marine came back the Soldier nodded and thanked him for the drink, very pleased he pulled one over on the Marine. This happened several times times throughout the flight.

When the plane was descending for the landing, the Marine put his boots back on and quickly realized the Soldier had been spitting in his boots.

To the Soldiers surprise, the Marine was laughing about it. He looked over at the Soldier and said "when are we going to stop playing these games, spitting in each others boots and pissing in each others drinks, it's so juvenile!"

9. Gone Fishin'

A famous Admiral and an equally famous General were fishing together when a sudden storm hit. When it died down both renowned warriors were struggling helplessly in the water.

The Admiral floundered his way back to the boat and pulled himself painfully in. Then he fished out the General, using an oar.

Catching his breath, he puffed: "Please don't say a word about this to anyone. If the Navy found out I can't swim I'd be disgraced."

"Don't worry," the general said. "Your secret is safe. I'd hate to have my men find out I can't walk on water."

Reminders

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