Headquarters
New Zealand Defence Force
Defence House
Private Bag 39997
Wellington Mail Centre
Lower Hutt 5045
New Zealand

OIA-2023-4686

21st April 2023

[redacted]

Dear [redacted]

I refer to your email of 3 April 2023 requesting, under the Official Information Act 1982 (OIA), information about the Royal New Zealand Air Force (RNZAF)'s NH90 helicopter fleet:

> *Can I get some more details about the availability for each year previously since they entered service?*
>
> *Also the statistics for the average flying hours per aircraft for each month going back to when the aircraft were introduced?*
>
> *Do you also have any statistics about the numbers of aircraft available each month/quarter/year since their introduction?*

The daily average availability of NH90 aircraft is shown in table 1, below. Airframe availability over time is not recorded prior to 2018. The reason for an aircraft being recorded as unavailable in Table 1 is either scheduled servicing or unscheduled defect rectification. The average flying hours per NH90 airframe per month is shown in Table 2.

Table 1.		
Year	**Average number of aircraft available per day**	**Average percentage of NH90 fleet available per day**
2018	3.8	47.5%
2019	4.49	56.1%
2020	4.55	56.9%
2021	4.52	56.4%
2022	5.14	67.7%
2023	5.51	68.8%

Table 2.		
Year	**Total fleet hours flown**	**Average hours flown per month per airframe.**
2013/2014	664	6.92
2014/2015	1250	13.02
2015/2016	1475	15.36
2016/2017	1435	14.95
2017/2018	1816	18.92
2018/2019	1943	20.24
2019/2020	2127	22.16
2020/2021	2001	20.84
2021/2022	1964	20.45
2022/2023 (to Feb 23)	1441	22.52

Have there been any internal audits or reports produced in the past few years about NH90 availability and ways in which to improve them?

The RNZAF conducts regularly analyses reliability looking for opportunities to improve the reliability and availability of the fleet. Recurring defects affecting availability are mitigated through design changes or additional maintenance where possible. Initiatives that have resulted from internal reports on NH90 availability include:

- Efficient aircraft usage and long term planning.
- A maintenance performance sequencing tool, ensuring efficient maintenance performance.
- Aircraft maintenance programme tailoring.
- Aircraft design improvements.
- Corrosion prevention programme.
- Improved logistics sparing and component repair management.

About 3 years ago all NH90 users were advised by Safran that the RTM322 engines could overheat in rare circumstances if the helicopters were hovering very low to the surface. They recommended a fairly simple fix that involved redirecting cold air. Has NZDF implemented this modification? I assume they have because the RNZAF seems to have been very diligent in following all safety related recommendations from the OEM but it would be very helpful if I can confirm this.

The RNZAF has received no mandated design modifications from Safran or NHIndustries for the NH90 around issues with hovering. In 2014 a service bulletin was released to address thermal bowing of the engine during a hot starts. This introduced a modification and procedural changes to the engine during hot starts only. This service bulletin was updated in

2021 but no further actions were required. The RNZAF are fully compliant with all parts of the service bulletin.

Also can I get the cost per flying hour of a NZ NH90?

The cost per flight hour for the RNZAF's NH90 helicopters is $1400.00. This does not include workshop maintenance, salaries, depreciation and capital charges.

You have the right, under section 28(3) of the OIA, to ask an Ombudsman to review this response to your request. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

Please note that responses to official information requests are proactively released where possible. This response to your request will be published shortly on the NZDF website, with your personal information removed.

Yours sincerely

AJ WOODS
Air Commodore
Chief of Staff HQNZDF