

also built under licence in the United Kingdom by Westland (now AgustaWestland) as Sea King and Commando, in Italy by Agusta (now AgustaWestland) as AS61 and by Mitsubishi of Japan.

Ageing Fleets to be Phased Out

However, age has taken its toll on the Sea King/Nuri, lessening its value and making it more difficult and costlier to maintain. It has already been mothballed by the US Navy although still in service with many other forces such as the UK Royal Navy, Royal Australian Navy and the Indian Navy. Operated by the United States Marine Corps, a highly upgraded S-61 is still used as one of several official helicopters of the President of the United States.

Crashes over the years have been many. In 2005, the same year that a Nuri crashed in Ba'Kelalan, Sarawak, a Royal Australian Navy Sea King crashed while on a humanitarian mission on Pulau Nias, Indonesia, killing nine crewmembers and passengers. That the crash occurred while the helicopter was on approach to land at a football field in fine conditions worsened the debate that followed about whether the aircraft was long overdue for retirement. Although, technically, age is not always the key factor in most air mishaps, public perception differs.

The Malaysian government decision to call for tender was made a few weeks after a Nuri helicopter on a routine flight crashed into a jungle-clad mountain ravine during bad weather in mid-July killing all six military personnel onboard. The fact that the wreckage of the ill-fated machine was found only about a week later, after it hit the thick three-canopy jungle near a major expressway some 30km north of the capital city of Kuala Lumpur, created a public outcry.



Tender for Malaysian Utility Helicopter

by Benjamin Mahmud

The Malaysian government will soon call for open international tender for new utility helicopters, at the same time announcing plans to phase out its ageing fleet of Sikorsky S-61 Nuri helicopters within three years.

An open international tender will be called to replace the Royal Malaysian Air Force's (RMAF) workhorse, Deputy Prime Minister Dato' Sri Najib Razak said. Najib, who is also Defence Minister, said it would take a few months to prepare the specifications for the tender and added that so far no allocations had been made yet for the procurement of helicopters. However, he said this would be done "in due course", adding that the government was serious about replacing the Nuri.

The Sikorsky S-61 Sea King has had a storied life since the first helicopter entered service in 1961 with the United States Navy. Hardy and reliable when it first appeared on the scene, the aircraft has been a workhorse for many navies and air forces the world over. Born as the Sea King anti-submarine warfare (ASW) helicopter for the United States Navy

originally named HSS-2, the twin-engine S-61 grew in different models and is still in service with the world military forces. Sikorsky built more than 1,100 S-61s, and this machine was





AgustaWestland

could be good replacements for the Nuri. Defence analysts said a helicopter similar to a Nuri would cost between US\$25 million and US\$40 million. Buying new helicopters would involve training packages on maintenance and piloting of the aircraft, spare parts and add-on electronics and avionics devices for the aircraft. If more similar units were purchased this would mean it becomes cheaper per unit in terms of cost.

Among the helicopters listed to be the expected contenders were the Eurocopter EC725 Cougar, AgustaWestland AW-101, Sikorsky S-92 Superhawk, NH Industries NH-90 and several variants of the Russian Mi-17. All of these helicopters are available in various versions including Combat SAR, SAR and utility, and also have all of the key features—reasonably-sized cabin and can hoist a fair load from its cargo hook and door winch, if so fitted. The AW-101, NH-90, S-92 and Mi-17

Keen Interest in Tender

Analysts, meanwhile, said the government’s decision to call for an international tender to replace the Nuri helicopters was long overdue. Some defence experts believe the Sea King/Nuri should have been replaced with more advanced, safer helicopters long ago. In Australia, it was reported that the Sea King, operated by the Royal Australian Navy, will eventually be phased out, with a naval variant of the NH-90 being a strong candidate with commonality in mind as the army is already equipped with the MRH-90 helicopters. In Canada, the loss of 12 Sea Kings over the 40-odd years in service has led to the announcement that the helicopters would be replaced with the S-92 Superhawk. The Canadian Search and Rescue (SAR) Service has already replaced their Sea Kings with the Cormorant CH149, which is a variant of the AgustaWestland AW-101.

Several helicopter manufacturers have expressed interest for the Malaysian helicopter tender. Depending on the budget allocation and the requirement, the RMAF has its work cut out for them, as there are many models in the market that



Mi-17.



NH-90.

ADJ/Ghazemy

have the advantage of a rear ramp.

- **AW-101:** The advantage of the AW-101 is its third engine—the “spare” engine can be shut down for fuel economy or spooled up when extra power is needed. This is the latest state-of-the-art chopper. ASW, AEW, Combat SAR and SAR versions are in service or have been ordered by UK (Merlin), Italy, Denmark, Portugal, Canada (Cormorant) and Japan. In February 2005, the helicopter was chosen as the replacement helicopter for the US Marine One presidential transport fleet requirement.
- **EC725 Cougar:** The EC725 is a versatile long-range helicopter, powered by two Turbomeca Makila 2A turboshaft engines. The top of the range CSAR variant is the Caracal of the French Air Force and the French Army Special Forces.
- **H-92:** Touted as cost-effective to operate and based on the proven technology of the

HOW THEY STACK UP

Aircraft	AgustaWestland AW-101	Eurocopter EC725 Cougar	Mil Mi-17/Mi-8	NHI NH-90	Sikorsky H-92 Superhawk
Crew	2 (pilot & co-pilot)	2 (pilot & co-pilot)	3 (pilot, co-pilot & engineer)	2 (pilot & co-pilot)	2 (pilot & co-pilot)
Capacity	24 seated troops/ 45 standing troops	28 troops seated	32 passengers	20 troops/12 stretchers	22 troops seated
Max takeoff weight	15,600kg	11,200kg	13,000kg	10,600kg	12,837kg
Powerplant	3x Rolls-Royce/ Turbomeca RTM322-01, 1,725kW each	2x Turbomeca Makila 1A4, 1,800kW each	2x Klimov TV3-117VM, 1,450kW each	2x Rolls-Royce Turbomeca RTM322-01/9, 1,662kW each 2x GE T700-T6E, 1,577kW (2,115shp) each (<i>Italian version</i>)	2x GE CT7-8A, 2,238kW each
Maximum speed	309km/h	324km/h	250km/h	300km/h	306km/h
Combat Radius	1,389km	573km	950km	800km (TTH); 1,000km (NFH)	1,482km
Service ceiling	4,575m	6,095m	6,000m	2,960m	4,200m

The H-92 Superhawk.



Sikorsky

Black Hawk, the Superhawk can be used for a variety of missions, including troop transport, external lifting, combat search and rescue, casualty evacuation and head of state missions. It is designed for extreme mission endurance, and offers a series of extensive mission-specific options. The H-92 was selected as Canada's new maritime helicopter to be called CH-148 Cyclone and will be delivered in January 2008.

● **NH-90:** The NH-90 is an advanced medium utility helicopter, capable of undertaking a wide variety of roles. It was developed to meet a European requirement to replace a range of ageing helicopters. The NH-90 is a product of more than 10 years of development and testing to meet stringent capability and low maintenance requirements. Already in service with Swedish, Norwegian, Finland, Belgian, Portugal, Spain, the Netherlands, Italy and German forces and the French Navy, the MRH-90 variant has recently been ordered for the Australian Army.

● **Mi-17/Mi-8:** A versatile battle-proven workhorse, the Mi-17 is identifiable from the Mi-8 by the additional air filters on the turbine air intakes, as well as left hand side mounted tail rotor. The helicopters are manufactured by the Mil Moscow Helicopter Plant JSC in Moscow, the Kazan Helicopter Plant JSC in Kazan and the Ulan-Ude Aviation Plant. The improved version of the Mi-8 is the Mi-17 Hip multi-purpose helicopter, also known as the Mi-8TMB. The Mi-8T helicopter is powered by two Klimov TV2-117 turboshafts engines. In November 2006, the Indian Air Force announced the procurement of a further 80 Mi-17-1V helicopters for delivery in 2007-2008 and a planned procurement of 197 helicopters for the Indian Army.

● **Black Hawk and Chinook:** Even the bigger Boeing CH-47 Chinook and the smaller Black Hawk is being thrown into the fray. The fact that the RMAF already operates two S-70 Black Hawks as VIP transport is one factor, which could figure prominently in any decision.

The S-70A (UH-60) Black Hawk is the smallest of the lot but is a battle-proven and battle-hardened machine.

Meanwhile, the US-Malaysia Aerospace Council (UMAC), which comprises international companies in the aerospace and defence industry based in Kuala Lumpur, hopes the Malaysian government will give due consideration to American helicopter manufacturers in the open tender for new transport helicopters to replace the current Nuri fleet. Welcoming the government announcement on the open international tender for the new transport helicopters, UMAC chairman Datuk Paul Walters said there were many American companies manufacturing helicopters that were active in the Malaysian marketplace. "We hope these companies will receive due consideration from the Malaysian government when RFPs (Request for Proposal) are released for replacement helicopters," he said in a statement on July 26.

Industry and Malaysian Ministry of Defence sources said that the CSAR or SAR helicopter could be of a more powerful advanced helicopter while the basic utility machine could be of another make in the form of a proven machine. It could be a mix of the AW-101 CSAR and the basic EC725 Cougar utility. Then again, to make everyone concerned happy, it could even be of either a European or US and Russian mix. At any rate, it is unlikely the government would allocate funds to replace all the Nuri helicopters it once had—a total of 40. More likely, at least for now the ball park figure would be 20.

Whether the force requirements remain as before, that is, a small number of Combat SAR or SAR helicopter and a larger number of utility machines, remains to be seen. The outcome, however, depends on the budgetary allocation and requirement set by the RMAF. ■