



Lost and found – one Redstone rocket

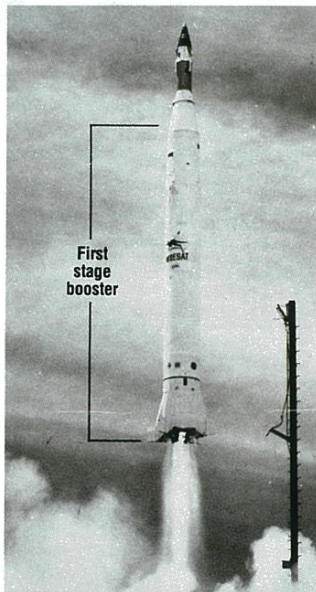
AT 2.19 p.m. on 29 November 1967 the deafening roar of a Redstone rocket blasting off from Woomera, SA, announced Australia's entry into the space club. Perched 20 metres above the billowing exhaust clouds was WRESAT, Australia's first and only satellite launched from home soil.

The rocket speared north, and two minutes 10 seconds later the first stage – a massive white cylinder complete with engines and about the size of a semi-trailer – flamed out about 70 kilometres above the Simpson Desert and dropped off into the middle of that sandy sea. Its fate remained a mystery for 22 years.

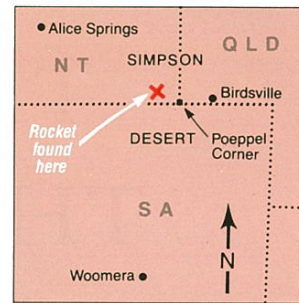
"What happened to it?" asked Dick Smith when he read about it in our story on Woomera in AG 12. "How can an enormous rocket disappear

in a desert that is regularly flown over, surveyed and photographed?" Prompted by Dick's inquiries, Bruce Henderson, a safety officer with Woomera's instrumented ranges controlling body, the Defence Science and Technology Organisation at Salisbury, Adelaide, used radar tracking records to plot the probable impact site.

His calculations placed the rocket smack bang in the middle of the Simpson, 623 km north of Woomera and 255 km west of Birdsville. Enlarged aerial photographs of this area failed to reveal the rocket, but armed with these and the estimated impact site co-ordinates, Dick searched the area while flying his helicopter across Australia in August 1988. His search was restricted by a limited fuel supply and he failed to find the rocket.



COURTESY : DSTO SALISBURY



Blast-off for WRESAT, Australia's first and only satellite launched from home soil, at Woomera on 29 November 1967. The Redstone rocket's massive first stage booster dropped off into the Simpson Desert where its location remained unknown for 22 years.

Some might think that the rocket would have been covered by wind-driven sand, but according to Dick Lang, a tour operator who has been leading expeditions into the Simpson for 25 years, the rocket probably hadn't been buried.

"The Simpson's dunes are all fixed, with solid, compacted bases bound by spinifex grass and marpoo bush," he said. "I've found fuel drums that have been out there for 15 years." So Dick encouraged Bruce to check his calculations, and

NATURAL EXPOSURE



HEAVE TO! The bubble-raft snail, *Janthina janthina*, prepares to attack a bluebottle. Other marine snails live on the sea floor, but *Janthina* is a pirate that secretes a foamy raft of bubbles and takes to the high seas where it encounters the floating marine creatures that are its prey.

Kathie Atkinson found this one, carrying a cargo of live goose-barnacles, at Newport Beach, NSW. *Janthina* exuded a purple dye, thought to anaesthetise its victim, then devoured the tentacles – stinging cells and all – with its sharp, rasping teeth, leaving only the gas-filled float to drift on.

Landlubbers rarely see *Janthina* alive, but in late summer hundreds of their fragile violet shells can be found washed onto our sandy ocean beaches.



“There it is!” Pip Smith spots the missing rocket from husband Dick’s helicopter in October last year. Although broken in two, the booster is remarkably intact after its 70 km fall from space.

***True colours ...** Desert sun has blistered off the rocket’s white paint to reveal its original military green colour to Jenny Smith and Guy Richards. Redstone rockets were developed by the US Army as intermediate-range ballistic missiles. This one was left over from 10 that were sent to Australia for trials in 1967.*

PHOTOS : DICK SMITH

this time, allowing for wind drift and atmospheric drag on re-entry, Bruce produced a revised estimate of the impact area that covered about 85 sq. km.

On 6 October last year Dick set out again, this time accompanied by his family. From Oodnadatta, in northern SA, they flew 115 km north to Dalhousie Springs, and then followed a surveyor’s track known as the French Line east across the Simpson to Poeppel Corner, the intersection of the NT, SA and Qld borders. Here they refuelled from a dump left by Birdsville policeman Bob Goad (AG 12), who had undertaken the 18-hour, 270 km round trip at Dick’s request, and headed out into the desert’s untracked heart.

Dick, navigating by dead reckoning, planned to land and get an accurate position from his satellite navigation system before starting the search, but decided to have a quick look first. They skimmed over the dunes in a search pattern at about 120 m altitude, and 15 minutes later Pip Smith’s excited cry of “There it is!” announced the rocket’s discovery.

It lay in the sand, broken in two and partly concealed by the scrub that had grown up around it. Twenty-two years of desert sun had blistered off the white paint and kangaroo emblem to reveal the rocket’s true colours – military green, with the letters US AR ... and the word *missile* printed on its shattered side.

Redstone rockets were originally developed by the United States Army as intermediate-range ballistic missiles. In 1967, 10 were sent to Australia as part of the Sparta program, which launched scientific packages into space to test what radiation was produced by a nuclear warhead re-entering the atmosphere. The Redstone rocket used to launch WRESAT was left over from this program.

Pip and Dick photographed the rocket, then landed and waited two hours in 40°C heat to get an accurate location from the satellite navigation system. It rested within the 85 sq. km search area about 10 km from Bruce’s estimated impact site.

Rockets have been found in the Simpson before. Between 1968 and 1971, Woomera launched six satellite-bearing



rockets northwards. Four malfunctioned and failed to reach their orbit, and one of these rained debris over the desert where a number of station owners have reported finding fragments scattered around their properties.

Adventurer Denis Bartell (AG 2) came across a Blue Streak rocket, used as a first stage for the Europa series of satellite launch attempts, during his solo walk across the Simpson in 1985. The

missing Redstone booster, from one of the two successful launches, was one of several rocket stages still unaccounted for.

Alan Lockett, Woomera’s area administrator, plans to use a team of volunteers with a six-wheel-drive crane and trucks to “bring the rocket home”, where it will join other relics in the town’s outdoor missile park and heritage centre.

Chris Hill