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Introduction: The MGR-1 Honest John rocket was the first nuclear-capable surface-to-surface rocket in the US arsenal.

Development & Operations: Designated Artillery Rocket X-M31, the first rocket was tested 29 June 1951 and the first production rounds were delivered in January 1953. The designator was changed to M31 in September 1953. The first US Army units received their rockets by year's end and Honest John battalions were deployed in Europe in the Spring of 1954.

Developed at Redstone Arsenal, Alabama, Honest John was a large but simple fin-stabilized, unguided artillery rocket weighing 5820 lbs. in its initial M-31 nuclear-armed version. Mounted on the back of a truck, it was aimed in much the same way as a cannon and then fired up an elevated ramp, igniting four small spin rockets as it cleared.

The M-31 had an official range of 15.4 mi. with a 20 kt. nuclear warhead but was also capable of carrying a 1500 lb. conventional warhead. Early tests exhibited more scatter on targets than was acceptable when Honest John was conventionally armed, and consequently the development of the M-50, was undertaken to improve accuracy and extend range.

The Honest John consisted of a truck-mounted, unguided and solid-fueled rocket, transported in three separate

parts. Prior to launch, they were combined in the field, mounted on an M-289 launcher, aimed, and fired in approximately five minutes. The rocket was originally outfitted with a W-7 variable yield nuclear warhead with yields of up to 20 kt. of TNT equivalent; this was followed by a W-31 warhead with three variants that was deployed with yields of 2 kt, 10 kt, or 30 kt. In the 1960s, Sarin nerve gas cluster munitions were also available for Honest John launches.



The two basic versions of the Honest John were:

- **MGR-1A** (M-31) was 27 feet and 3 inches long, had an engine diameter of 22.875 inches, a warhead diameter of 30 inches, a span of 104 inches, weighed 5820 pounds (nuclear), and had a maximum range of 15.4 miles. The Hercules Powder Company X-202 rocket motor was 197.44 inches long, weighed 3937 pounds, and had 90,325 pounds average thrust.
- **MGR-1B** (M-50) was 24 feet 10.53 inches long, had an engine diameter of 22.8 inches, a warhead diameter of 30 inches, a

span of 56 inches, weighed 4332 pounds (nuclear), and had twice the range of the M-31. The Thiokol composite propellant solid rocket motor had 150,000 pounds thrust.

Production of the MGR-1 variants finished in 1965 with a total production run of more than 7,000 rockets. Honest John's bulbous nose and distinctive truck-mounted launch ramp made it an easily recognized symbol of the Cold War.



The system was replaced with the MGM-52 Lance missile in 1973, but was deployed with NATO units in Europe until 1985. Conventionally armed Honest Johns remained in the arsenals of Greece, Turkey and South Korea until at least the late 1990s.

By the time the last Honest Johns were withdrawn from Europe in 1985, the rocket had served with the military forces of Belgium, Britain, Canada, Denmark (non-nuclear), France, Germany, Greece, Italy, the Netherlands, Norway (non-nuclear), South Korea, Taiwan (non-nuclear), and Turkey.

Canadian Use of Honest John: In 1962, the Diefenbaker government approved the purchase of Honest John

for NATO service in Germany.

The Honest John was one of several nuclear capable systems authorized by the conservative regime of the time, the others being the BOMARC surface-to-air missile (SAM), the Genie air-to-air missile (AAM) used by the CF 101 Voodoo, and the earliest of the four types of nuclear bombs carried by the CF 104 Starfighters in Europe.

The actual provision of nuclear warheads for these systems was a dominant theme of the 1963 general election. The Royal Canadian Air Force assumed responsibility for the BOMARC missile system while the Honest John was the army's sole nuclear capable delivery system responsibility.

The creation, in September 1960 of the army's two SSM Batteries – one for deployment and one for training – occurred simultaneously with disbandment of the army's anti-aircraft artillery school and the 1st Light Anti-Aircraft Regiment. The two SSM Batteries not only took over the space that these organizations occupied at Camp Picton in the fall of 1960, but also a great many of the personnel.

Training on the Honest John system took place in April and May of 1961 in Fort Sill, home of American artillery. On October 27, an Honest John missile was fired at Camp Petawawa, the first by the 1st SSM Battery, Royal Canadian Artillery. In December, 1961 over 225 men of the 1st SSM Battery were deployed to Hemer, Germany, to

become part of the British Army of the Rhine under command of the brigadier commanding 4th Canadian Infantry Brigade (4 CIBG).



1 SSM Formation Patch

The 1st SSM Battery had four launchers. The role of the missiles was counter battery and harassment. Canadians in Europe used the warhead with a 2kt yield, though there were compatible warheads with higher yields.

It was intended that the two forward deployed launchers would fire and then leapfrog backwards through the two other launchers in what was a "shoot and scoot" concept. The 1st SSM had 115 "operational" missiles and a reported 16 of 69 available warheads from the US Army Missile Warhead Support Detachment of the US Army Special Ammunition Storage Command, which also provided nuclear warheads to a British Army Artillery regiment of six launchers.

Unlike the aircraft of the Royal Canadian Air Force, both British and Canadian SSM units had to obtain the nuclear warheads from this American custodian detachment that was co-

located with the British Corps, which included 4 CIBG.

Authorization for release of nuclear warheads would come directly to the American storage unit in event of a "first strike" situation. The authority for nuclear warhead release, in most circumstances, was expected to be the Supreme Allied Commander Europe (SACEUR) who would also pass authority to use the nuclear warheads to the Canadian SSM Battery through the Commander 4 CIBG. There was also a process for the Canadian prime minister to authorize the use by the Canadian missile unit.

The 1st Canadian SSM Battery, although an artillery element, did not come under the purview of 4 CIBG's senior artillery officer, the commanding officer of 4 Royal Canadian Horse Artillery Regiment (4 RCHA). The officer commanding the Battery received instructions directly from Canada's brigade commander.



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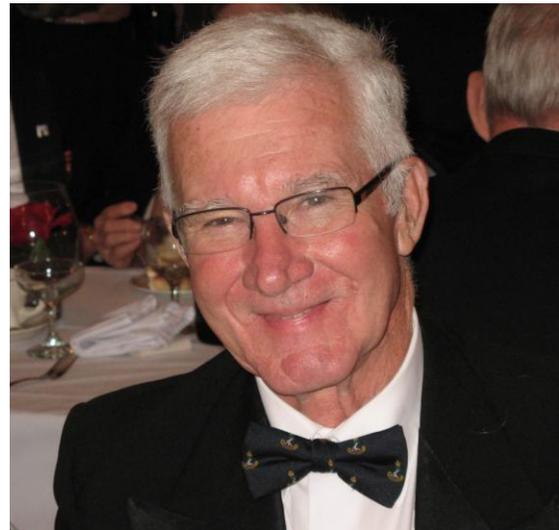
The 2nd SSM Battery equipped with two launchers, had been created to provide trained personnel for Europe.

In August 1962, 2nd SSM Battery was moved from Picton to CFB Shilo where it remained until disbandment in September 1968. That same year, 1st SSM Battery was reduced to two launchers and moved from Hemer to Isherlohn. In 1970, this Battery was also disbanded.

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