

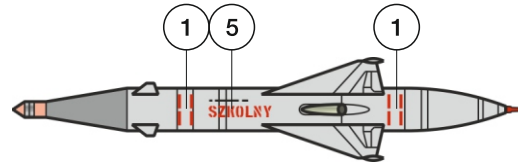
### Brief history and description of missile

The RS-2US (K-5MS, NATO: AA-1B "Alkali") was an improved production variant of the Soviet Union's first operational air-to-air guided missile family, developed in the mid-1950s to meet the urgent requirement for an effective weapon against high-altitude strategic bombers. Entering service around 1959–1960, it evolved from the earlier RS-2U and was integrated with increasingly capable radar systems on supersonic interceptors such as the MiG-21 and Sukhoi Su-9. Its development reflected the doctrinal framework of the time: tightly controlled interceptions directed by ground radar, with the fighter acting as a guided weapons platform rather than an autonomous combat aircraft. Given the technological limitations of early Soviet electronics, the designers adopted beam-riding guidance, in which the missile followed a radar beam projected by the launching aircraft rather than homing on the target itself. This approach offered several advantages: simplicity, robustness granted by minimal onboard electronics and no complex seeker head, enabling large-scale production and reliable operation. Its design included unusual mid-body exhaust nozzles, a solution necessitated by location of beam receiver antenna in the tail. These features made it well suited to controlled intercepts against large, non-maneuvering targets such as bombers, particularly at medium to high altitudes where engagement geometry could be carefully managed. However, the same characteristics imposed serious limitations. Beam-riding guidance was inherently inefficient and inaccurate at longer ranges, as the radar beam widened with distance, reducing precision. The missile lacked any form of autonomous target tracking or predictive guidance, resulting in poor performance against maneuvering targets and a tendency to follow inefficient flight paths. Moreover, the launching aircraft had to maintain steady flight and continuous radar illumination throughout the engagement, making it tactically inflexible and vulnerable. These shortcomings became increasingly problematic as air combat shifted toward more dynamic fighter engagements and electronic countermeasures improved, rendering the system quickly obsolete.

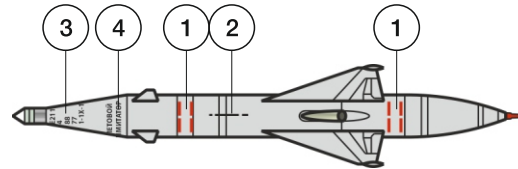
The RS-2US was operated by the Soviet Union and several Warsaw Pact and allied air forces, including Poland, Czechoslovakia and East Germany, on aircraft such as the MiG-17PFU, MiG-19PM, MiG-21 variants and Sukhoi Su-9/11 interceptors.

In service, missiles were typically finished in bare metal / aluminium powder laquer with sparse black & red stenciling. Tail antenna was often red.

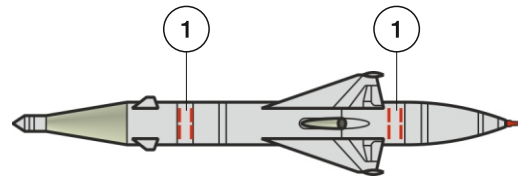
### Colors and markings



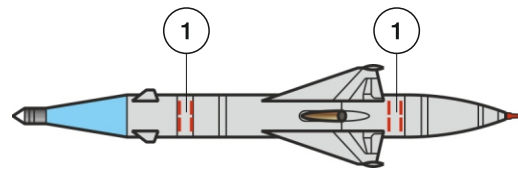
Training RS-2US with polish stencils „SZKOLNY”. Note dark grey front section.



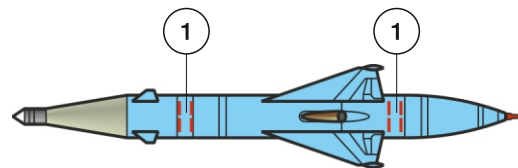
„Default” training RS-2US with cyrilic stencils. Uniform lacquered aluminium.



Typical RS-2US. Lacquered aluminium, slightly darker oxide for nose section. Grey metal motor exhausts.



RS-2US in colours often seen on Czechoslovak MiG-19s. Note motor exhaust appear to have gained brown/rusty tint, which would suggest the missile was carried on multiple occasions.



Another blue RS-2US, this scheme is opposite to one above. Similar colour to nozzles.