

AVRO ARROW: *High Speed Intercepts*

This page will surprise and anger some people. It shouldn't (surprise maybe, anger, no, unless your level of knowledge is rather weak, and you don't like being shaken up.....). The range or RADIUS of action (radius being the figures on this page) would obviously be dependant on what performance is deemed appropriate for a given mission. An engine at economical cruise, high speed cruise, full military, partial after-burner, and full after-burner settings will NOT maintain the same rate of fuel consumption. These figures assume use of afterburner through rotation, very quick landing gear retraction, and some level of after-burner used until radar or visual contact is made. Even with after-burner use during combat, speed would probably drop to subsonic rather quickly (If you avoid using afterburner *until* you reach an optimum altitude, you have much more fuel on board, but it takes you a lot longer to get there. In this scenario, you don't have the time). All figures are statute miles. Supercruise would complicate the issue only if the ARROW had been allowed to explore it's full range of performance. If the figures for the ARROW seem to be out of this world (and they do), consider the amount of fuel the ARROW carried internally, and its low drag configuration (also for these figures, a small portion of the weapons pack was given over to fuel). Adding external stores, either fuel or missiles, imposes an extreme drag penalty, which shows in reduced speed and radius/range.

ARROW Mk2 @ M1.5 = 450 miles (internal fuel only)
 ARROW Mk2 @ M1.8 = 430 miles (internal fuel only)
 ARROW MK2a @ M 1.5 = 750+ miles (internal fuel only)
 ARROW Mk2a @ M 1.8 = 700+ miles (internal fuel only)
 F-4 Phantom @ M 1.6+ = 130 miles (600 US gal belly tank, 2 Sparrow)
 Tornado Mk 3 @ M 1.? = 345+ miles
 F-14a Tomcat @ M 1.3 = 200 miles (2X 220 U.S.)
 F-14a Tomcat @ M 1.5 = 155 miles (2X 220 U.S.)
 F-14d Tomcat @ M 1.3 = 320 miles (2X 220 U.S.)
 F-14d Tomcat @ M 1.5 = 259 miles (2X 220 U.S.)
 F-15a Eagle @ M 1.8 = 80 miles
 Mirage 50 @ M 2 = 200 miles (internal fuel, 2 missiles carried)
 Mirage F-1 @ M 2.2 = 195 miles (internal fuel only, gun armament only!)
 Mirage F-1 @ M 1.8 = 160 miles (internal fuel, 2-4 missiles carried)
 Mig-25 Foxbat @ M 2.5+ = 190 miles
 Mig-29 Fulcrum @ M 1.7+ = 230 miles
 Mig-31 Foxhound @ M 2.4 = 460 miles
 Su-27a Flanker @ M 2.2+ = 300 miles
 F-12a (family) @ M 3.0 = 1,000 plus miles,
 (but this very impressive family had a rather odd
 take-off, top off the fuel via a tanker, dipsey or dipsey-doodle
 (their phrase, not mine) through the sound barrier,
 then come up to speed routine that would effectively
 cut it's realtime performance rather drastically.)

Aircraft to follow (when I get the data):

F-101 Voodoo @ M = miles
 F-104 Starfighter @ M = miles
 F-106 Dart @ M = miles

F-15c Eagle (fastpack) @ M = miles
F-16 Fighting Falcon @ M = miles
F-18 Hornet @ M = miles

I will have to dig through various resources, to establish which of these aircraft would be carrying external fuel for these distances. In the case of the F-14, both external tanks are carried, and it has a VERY heavy weapons load, including Phoenix (it would also be followed off by a tanker [Grumman KA-6D] to ensure that it had enough fuel to make it back to the carrier. And again bear in mind that these are the best figures available, and may be high or low for any machine that has any items still considered "secret" by its operating government. In each case, a high speed cruise profile (reheat only to get off the ground, if even then) would give double or triple the radius of action.

IF YOU HAPPEN TO HAVE DATA OF THIS NATURE ON ANY OF THE AIRCRAFT ON THESE PAGES, PLEASE GET IN TOUCH.

The bulk of the Russian figures from Modern Soviet Fighters, Mike Spick, also Mig Pilot by V Belenko.

F-14 from OSPREY book on same, and WARPLANE Vol. 37
ARROW figures from recently declassified paper, details to follow, or go to sites page, and find link there.. I'm kinda tired at the moment, and will be going to bed shortly.

All pages copyright to Barry Fortier/Gemini Diversions.

Page created by: geminimp@netcom.ca

- Return to the [home page](#)..
- Jump to the [ARROW page](#)..

GEMINI DIVERSIONS

Calgary Alberta
403 255-2651 Phone/Fax
