FUTURE SMALL ARMS & AMMUNITION DESIGN

Bullet shape & barrel length

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Editor, IHS Jane's Weapons: Ammunition

SLIDE 2: BULLET DESIGN

BC = Ballistic Coefficient (SD / FF – rate of velocity loss)

SD = Sectional Density (mass / frontal area)

FF = Form Factor (aerodynamic drag – ogive shape)

Barnes .50 cal bullets

SLIDE 3: NATO SMALL ARMS AMMUNITION

5.56 mm

7.62 mm

.300 Win Mag

.338 Lapua

.50 Browning

SLIDE 4: BULLET DESIGN 2

7.62 mm NATO

M80 bullet

Voss bullet

CETME 7.92x40

SLIDE 5: BULLET DESIGN 3

5.56 mm M193 (top)

5.56 mm FABRL

SLIDE 6: BARREL LENGTH 1

.300 Win Mag

7.62 mm NATO

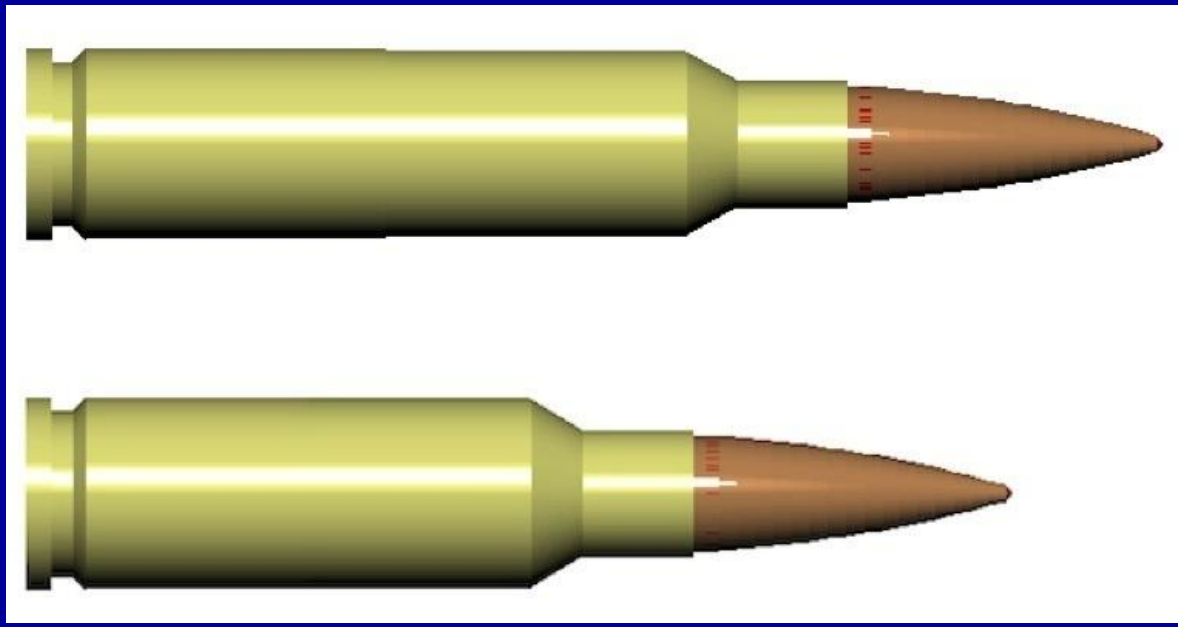
.302 Whisper

SLIDE 7: BARREL LENGTH 2

6.5 mm calibre – 2,500 J / 1,850 ft.lbs muzzle energy

From 16 inch bbl

From 24 inch bbl



Joseph A Smith

SLIDE 8: MSBS 1

Remigiusz Wilk

SLIDE 9: SUMMARY

BULLET DESIGN: good FF = longer range or smaller ammo

BARREL LENGTH: long barrel = smaller ammunition

COMBINED: long barrel + good FF = much smaller ammo

GUN CONFIGURATION: bullpup = long barrel in short gun

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