



Requirements to Current and Future Small Arms

Prepared by: Rolf Hezel

Authorized by: Wolfgang Bantle

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SA80 Reliability Growth Investigation



- 07/96 Request for tender by MoD for reliability growth investigation
- 11/96 Contract awarded by MoD
- 12/96 - 04/97 Reliability growth investigation at HK-O
- 06/97 Presentation of results at Abbey Wood

SA80 Reliability Growth Investigation

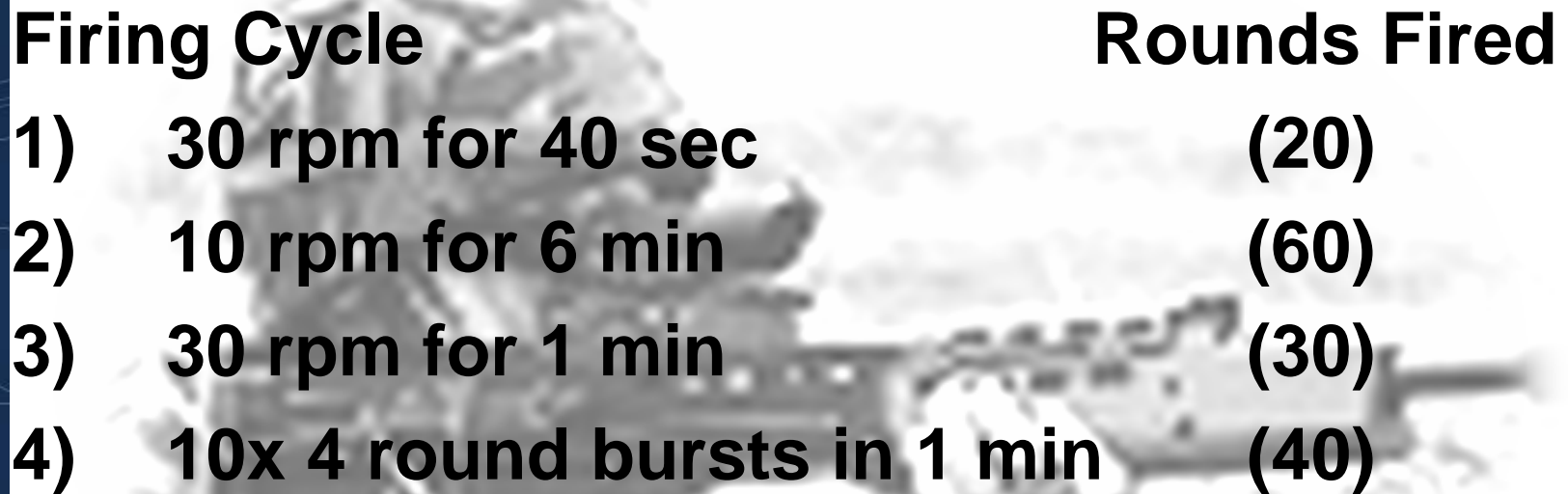


- 1. Weapon Measurement 4 Weapons
- 2. Barrel Measurement
- 3. Evaluation with Various Ammunition
- 4. Firing at Different Temperations
- 5. Test Report
- 6. Design Proposels

SA80 Reliability Growth Investigation

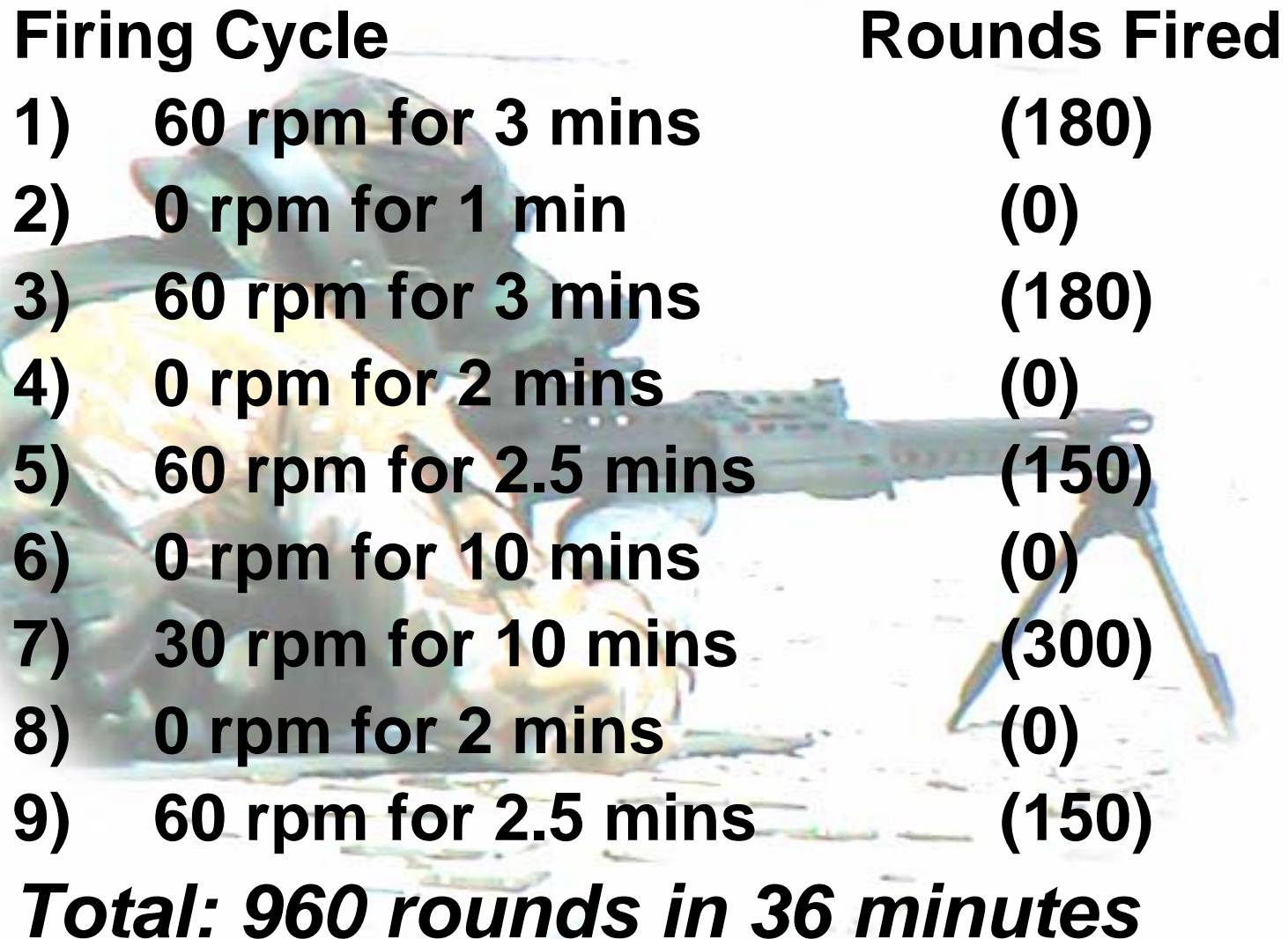


- 07/97 Request for tender to modify an initial quantity of weapons
- 09/97 Tender submitted to MoD
- 01/98 - 06/98 Further discussions with MoD
- 07/98 Presentation of proposal at Warminster
- 07/98 Modification of 100 IWs & 100 LSWs is agreed and work starts
- 01/99 100 IWs & 100 LSWs delivered to MoD on schedule



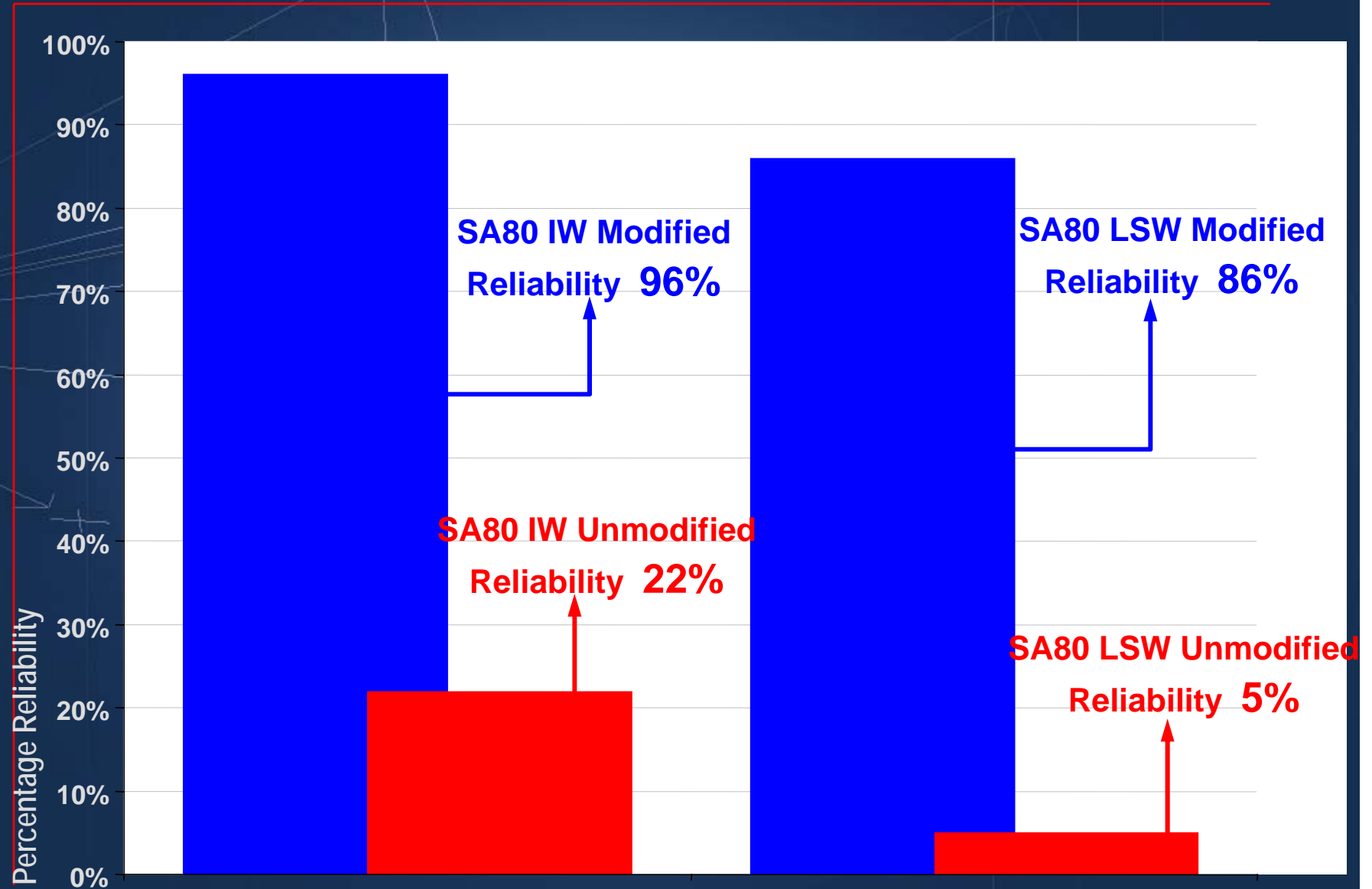
Firing Cycle	Rounds Fired
1) 30 rpm for 40 sec	(20)
2) 10 rpm for 6 min	(60)
3) 30 rpm for 1 min	(30)
4) 10x 4 round bursts in 1 min	(40)

Total: 150 rounds in 8 minutes 40 seconds



Firing Cycle		Rounds Fired
1)	60 rpm for 3 mins	(180)
2)	0 rpm for 1 min	(0)
3)	60 rpm for 3 mins	(180)
4)	0 rpm for 2 mins	(0)
5)	60 rpm for 2.5 mins	(150)
6)	0 rpm for 10 mins	(0)
7)	30 rpm for 10 mins	(300)
8)	0 rpm for 2 mins	(0)
9)	60 rpm for 2.5 mins	(150)
<i>Total: 960 rounds in 36 minutes</i>		

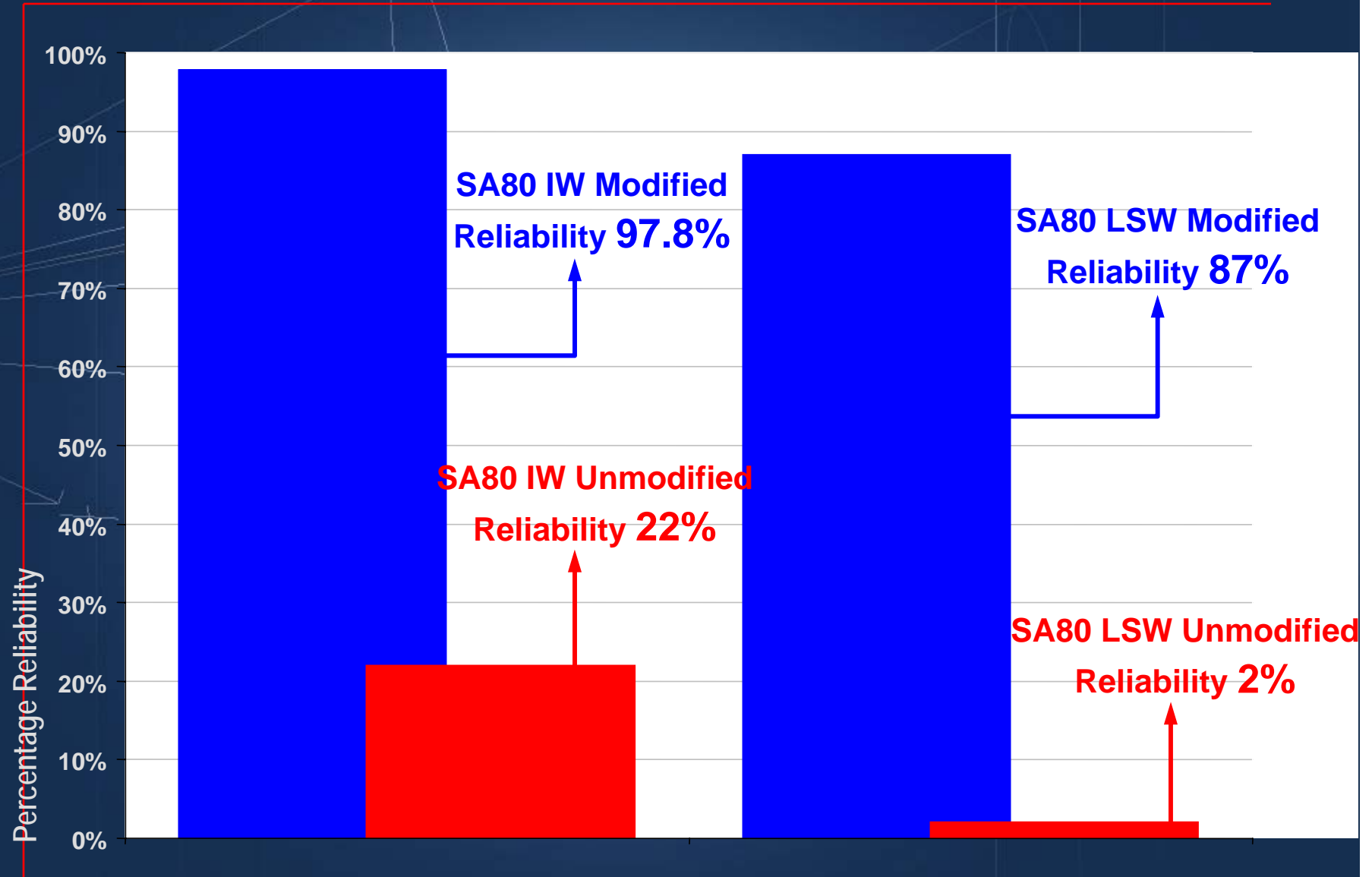
Alaska, February 1999 Reliability Results



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Kuweit Trials, June 1999

Reliability Results





■ 03-05/00 Negotiations concerning quantity production

**Reliability to
high?**

SA80 Project Timelines

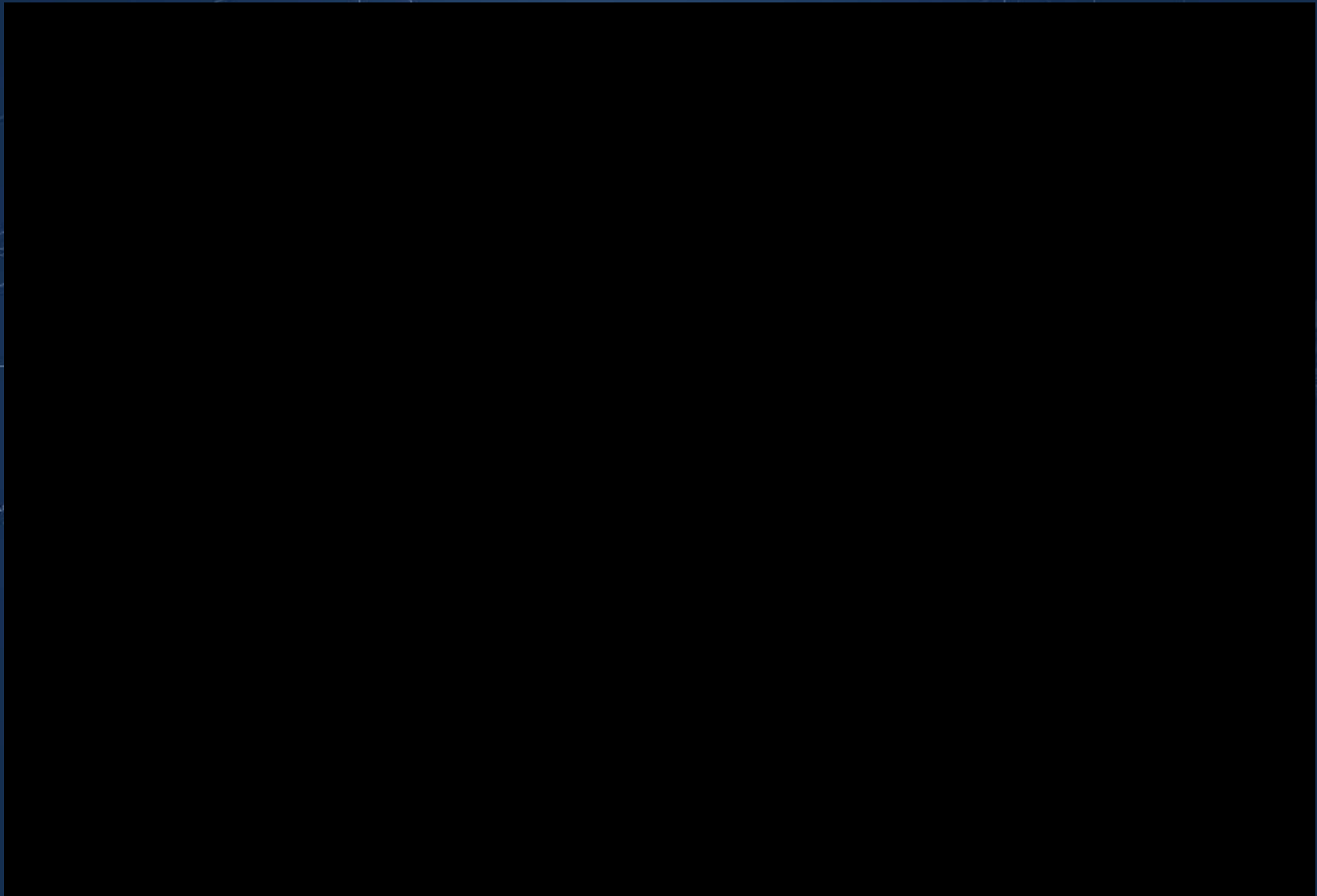


- 06/00 SA80 go ahead by Defence Secretary
- 10/00 - 01/01 SA80 contract negotiations between MOD and HK
- 01/01 150 IW's and 150 LSW's Standard Production Weapons delivered to MoD on time
- 02/01 SA80 Main Contract, issued by MoD
- 02/01 ISRD - Trial Alaska
- 03/01 ISRD - Trial Brunei



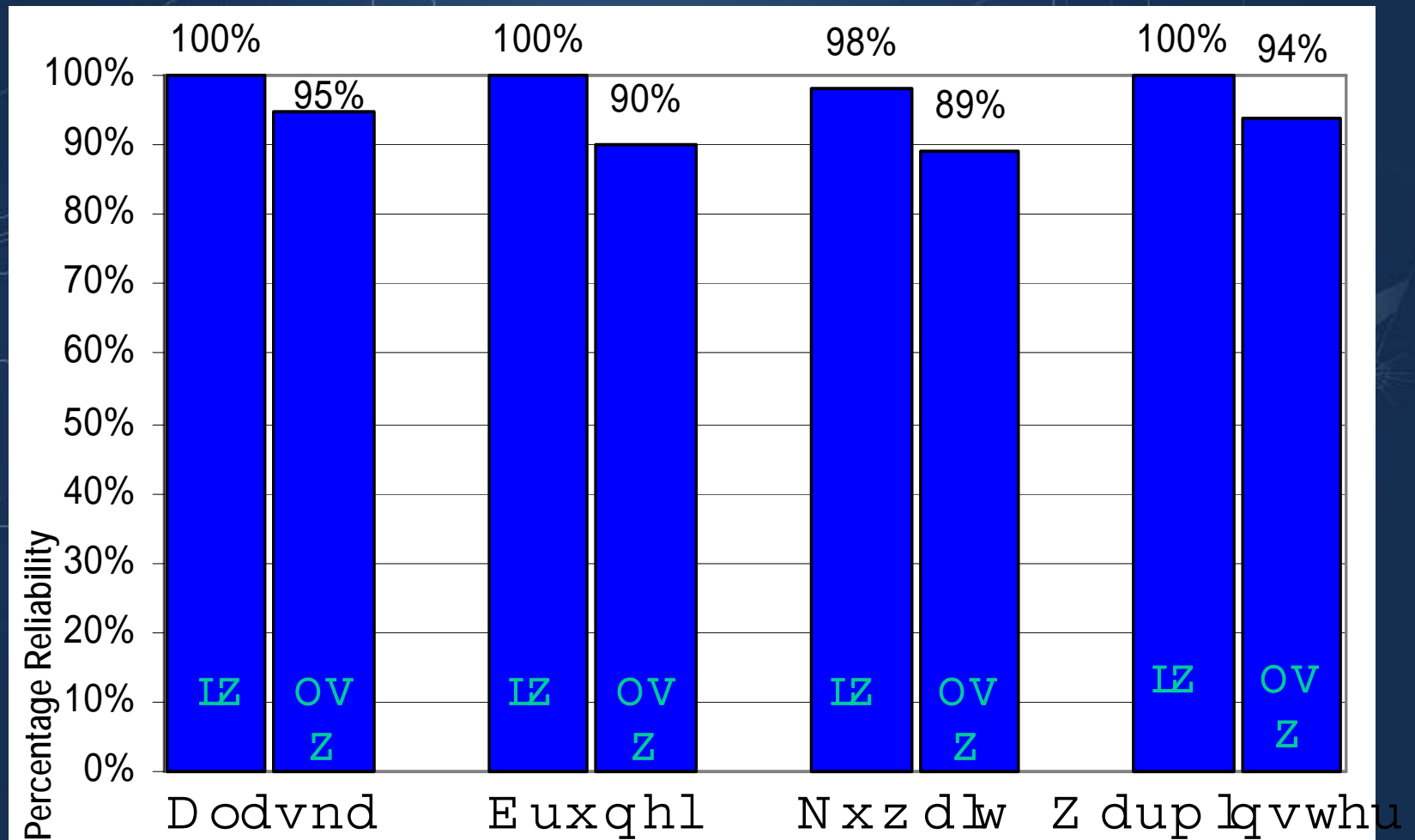
Trust !

SA80 ISRD Trials Kuwait



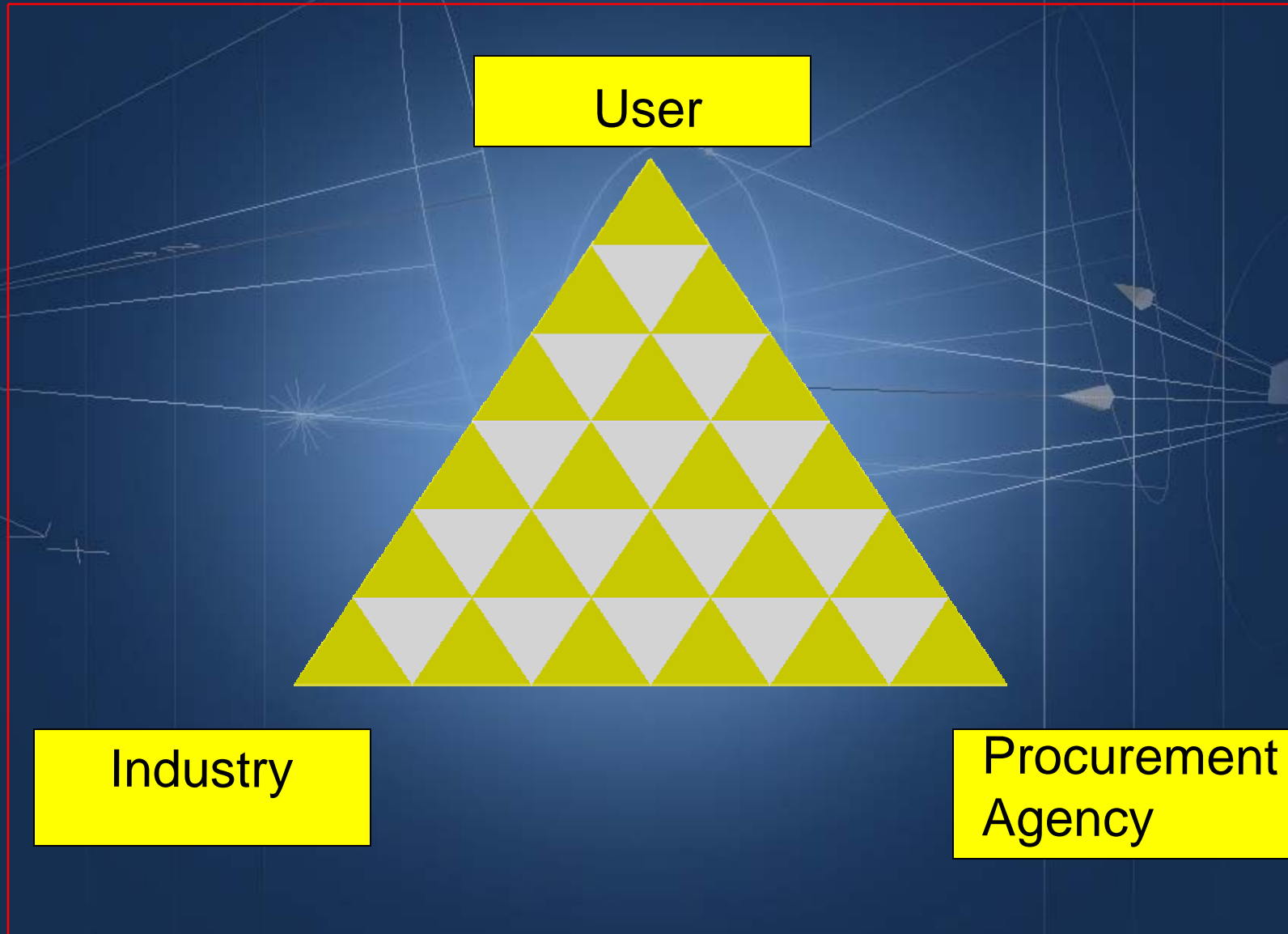
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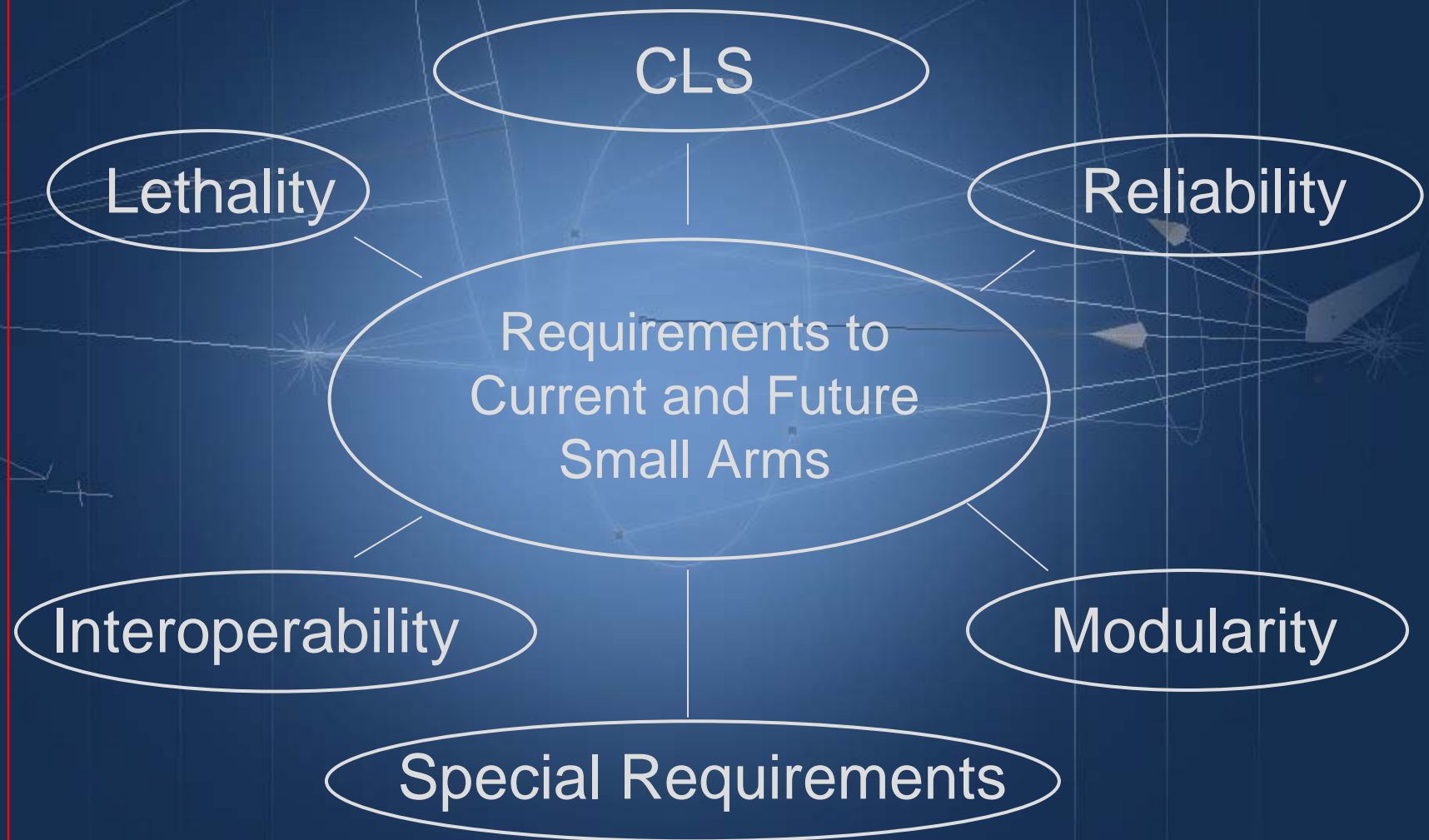
Trials 2001 Reliability Results SA80 IW/LSW





Golden Triangle

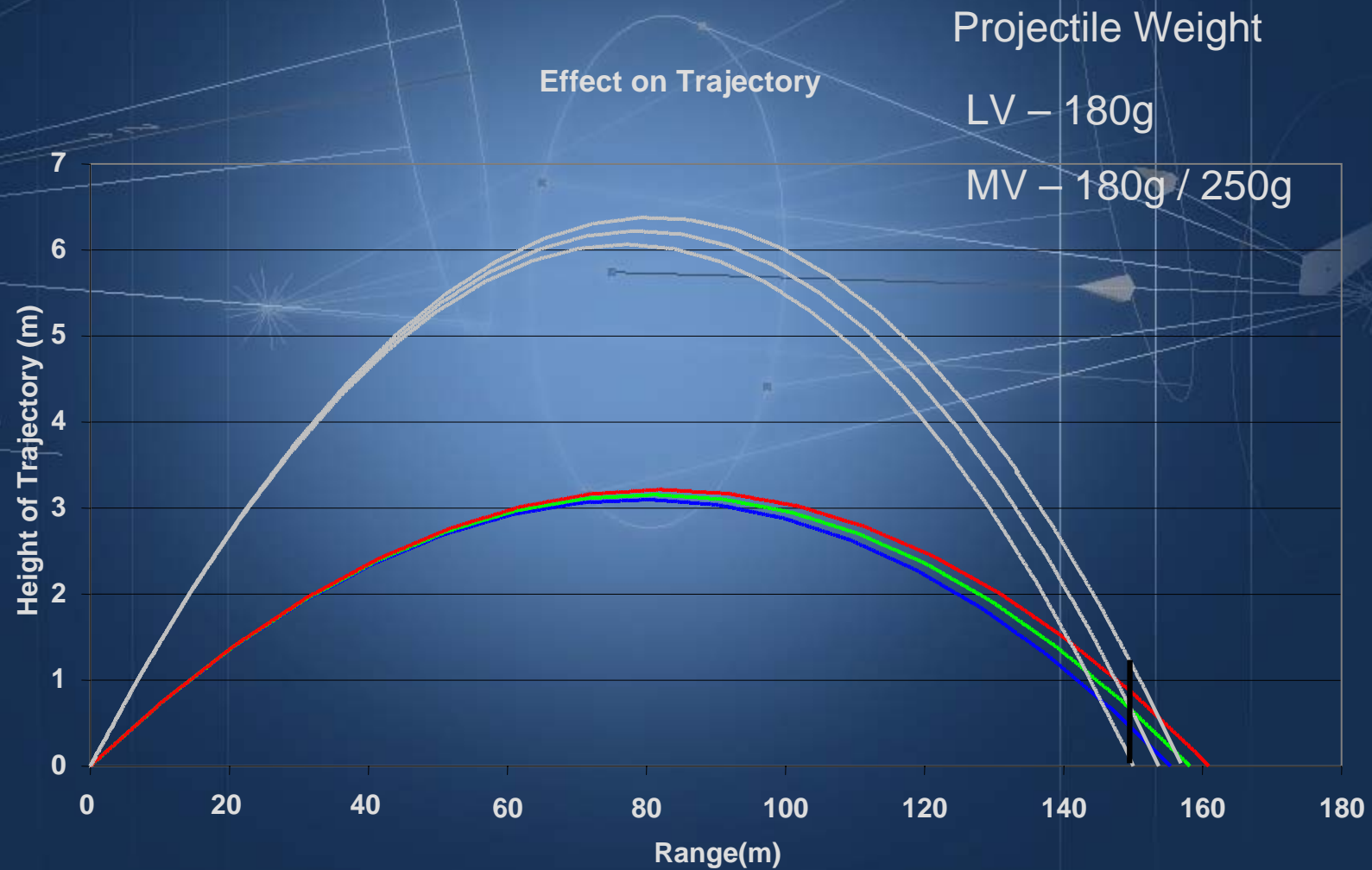




Lethality



UGL 40mm x 46 - Trajectory Comparison LV vs. MV

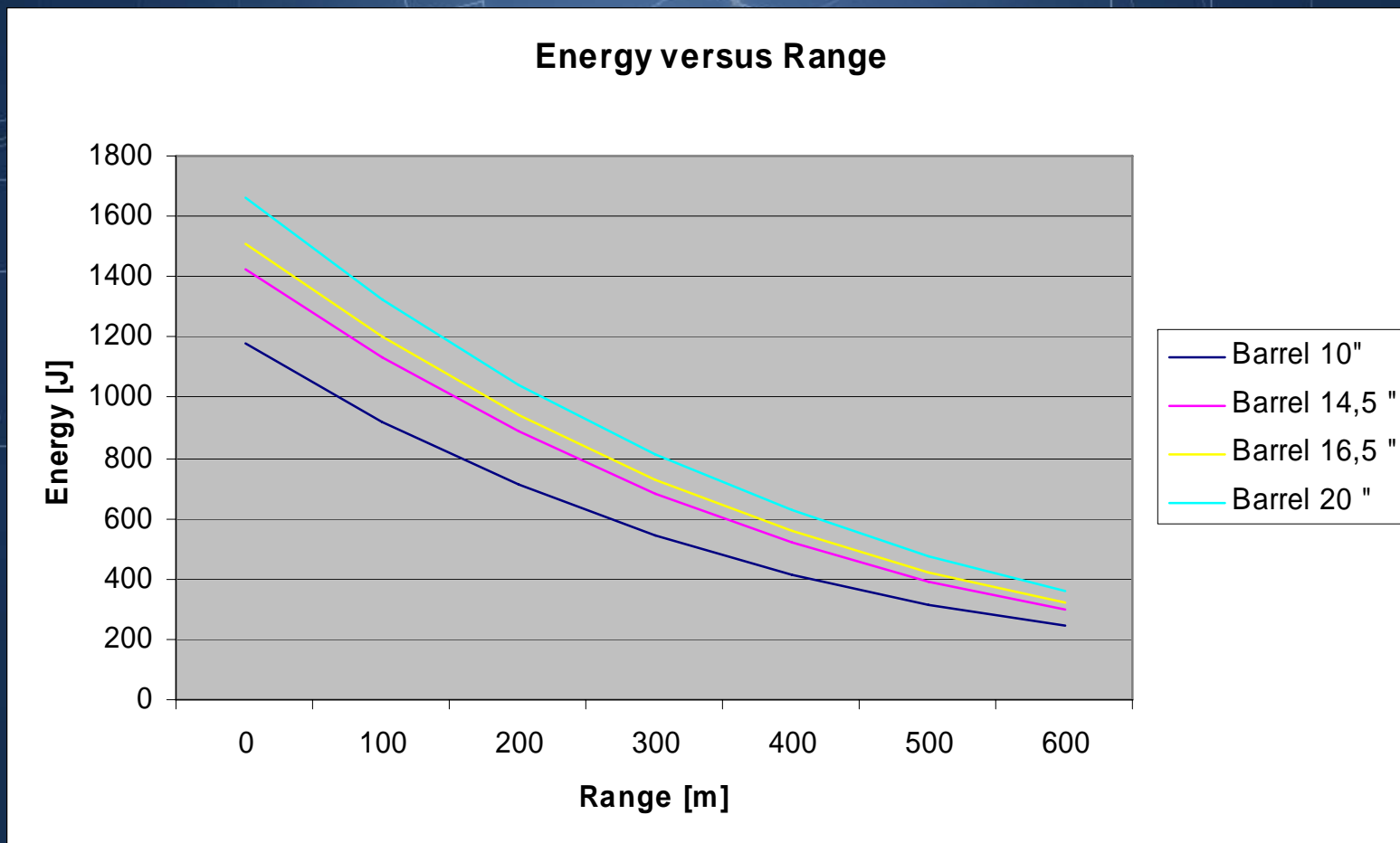


Commercial in Confidence

Lethality



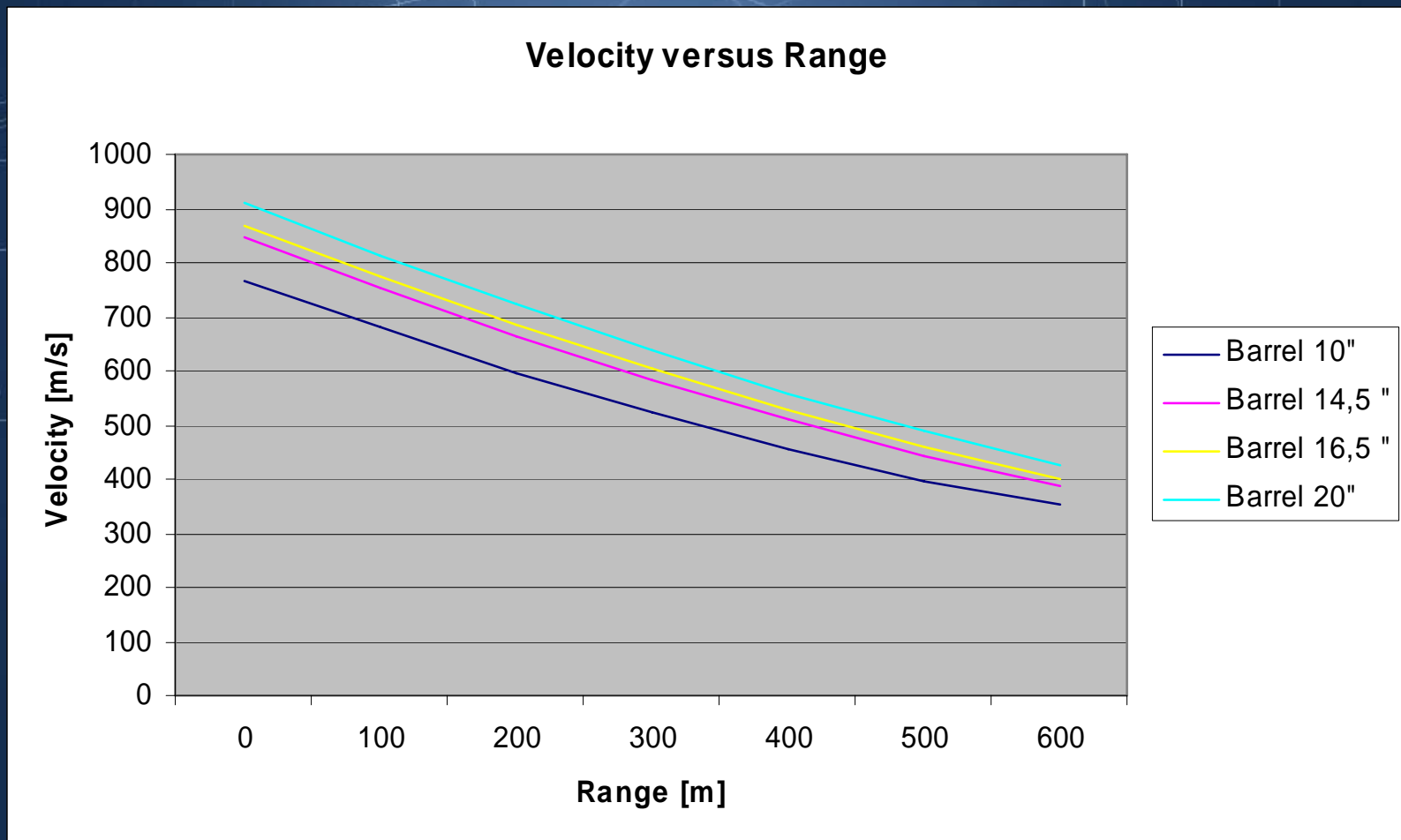
Energy 5.56mm x 45



Lethality



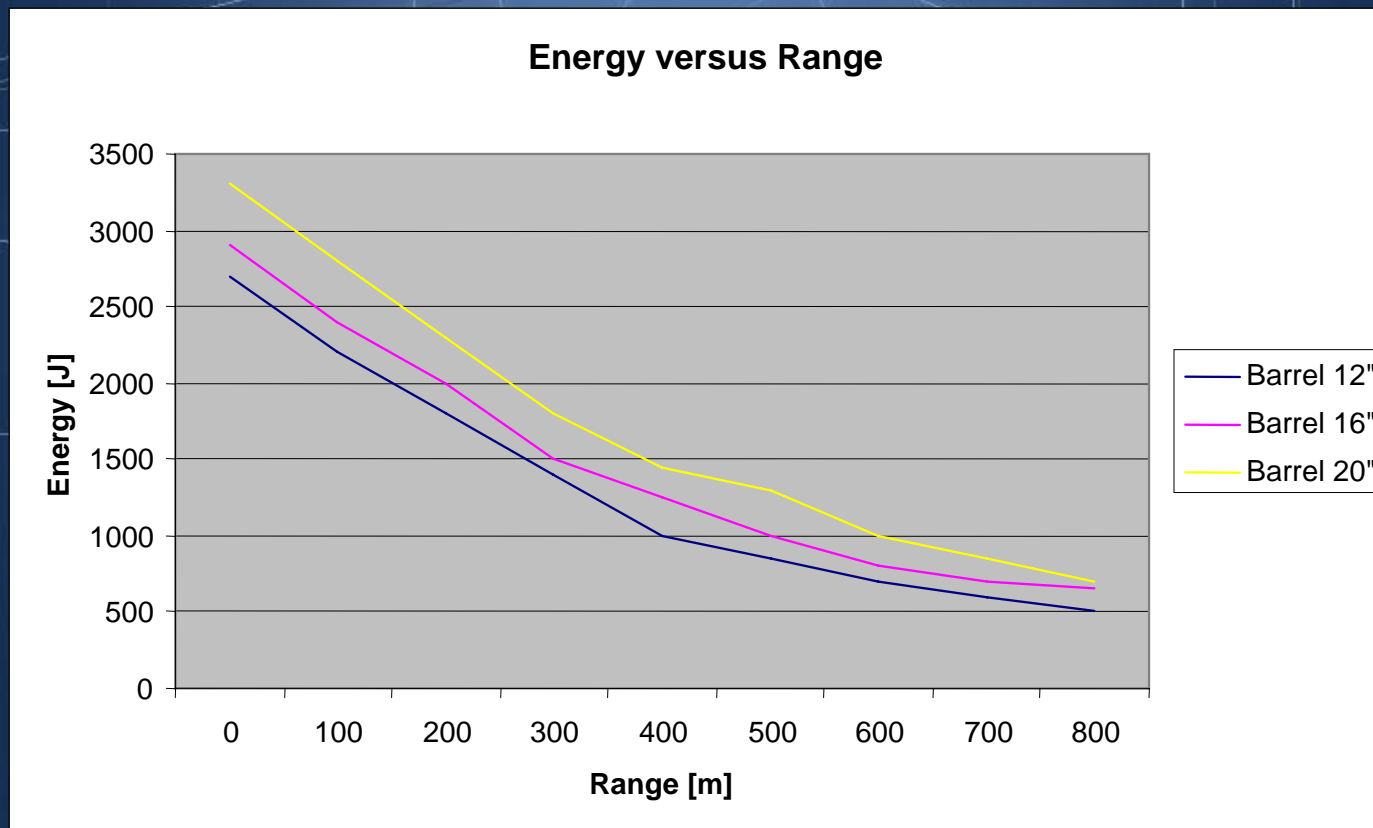
Muzzle Velocity 5.56mm x 45



Lethality



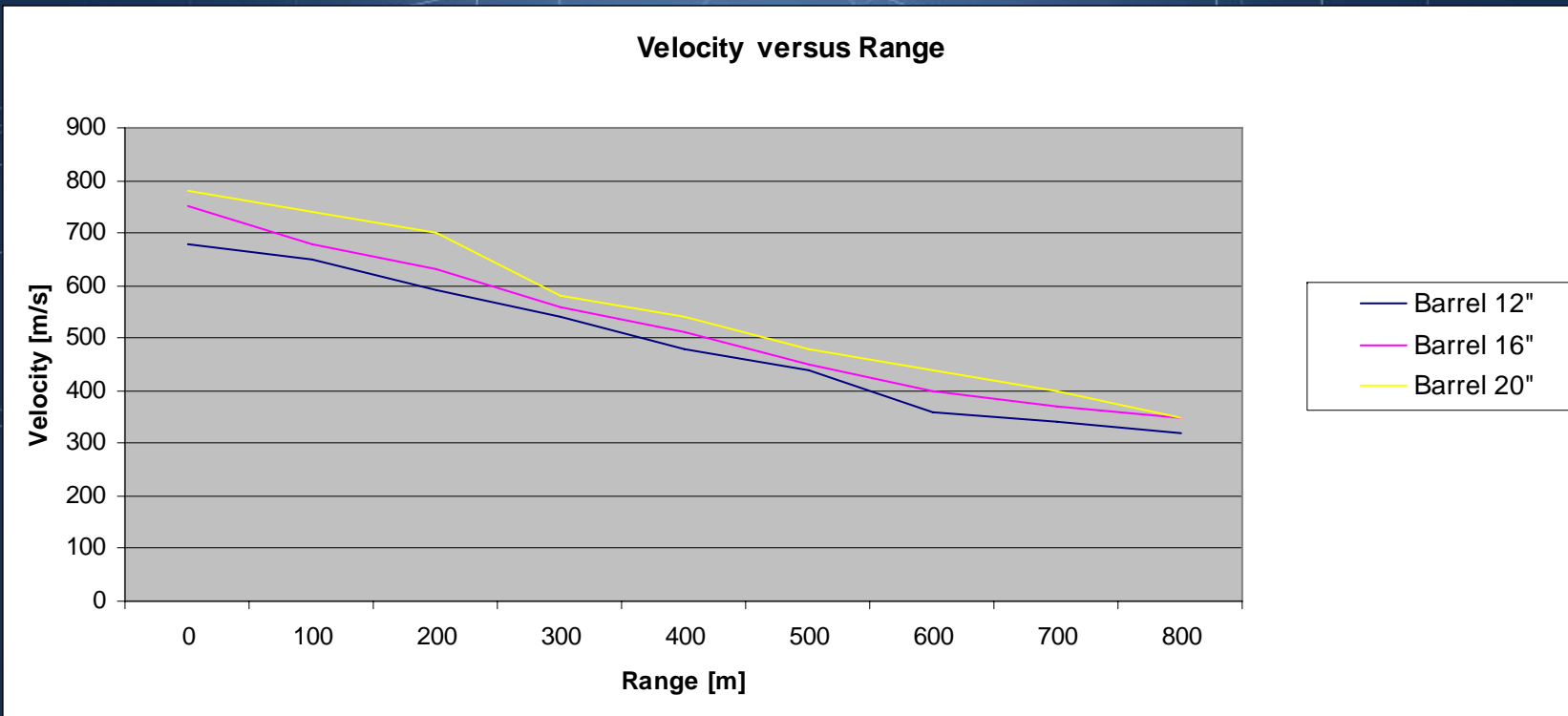
Energy 7,62mm x 51



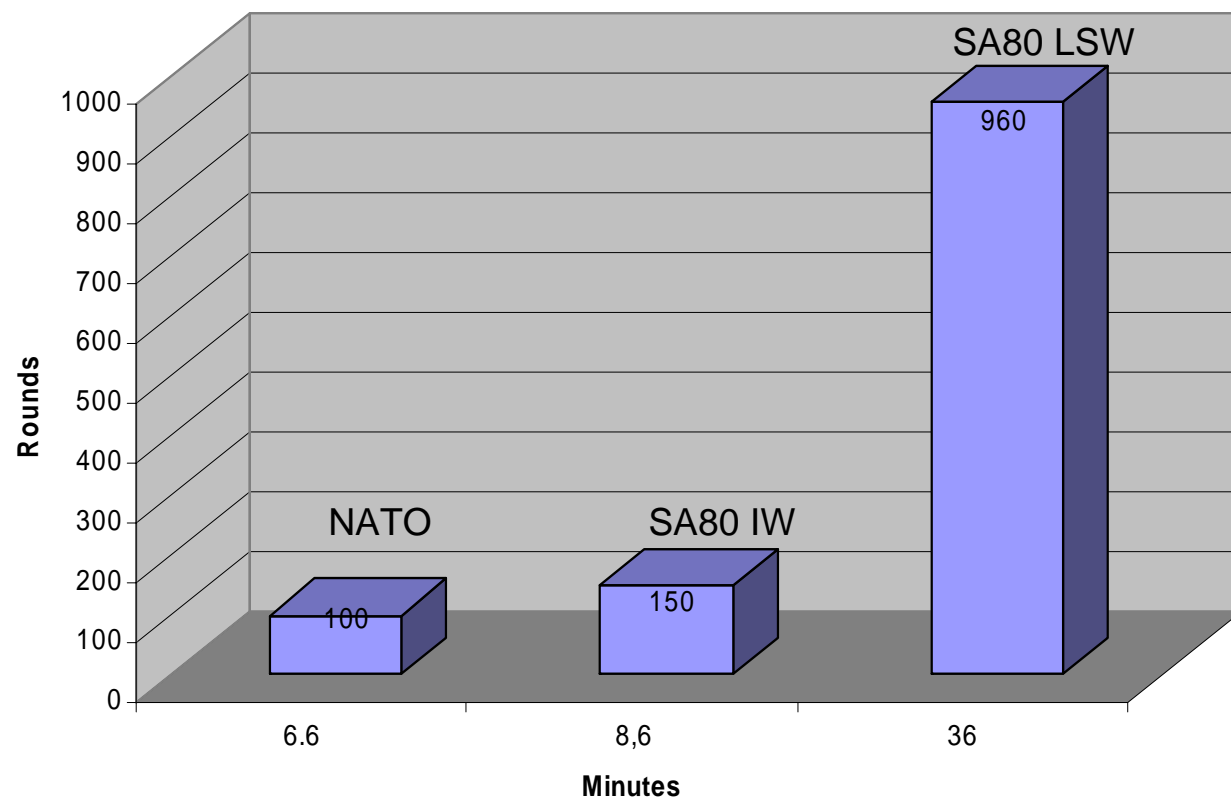
Lethality



Muzzle Velocity 7,62mm x 51



Battlefield Mission for Individual- Light Support Weapon



Lethality



Weapon Weight

- Requirement

0 Kg or less



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Lethality



Accuracy Requirement

SA80

4 MOA

11.84cm

Sniper Rifle

1 MOA

2.96cm

Assault Rifle

4 MOA

11.84cm

100m

Special Requirements



Climatic Scenarios

Dodvnd



Zdup lqvwhu



Nxzdlw



Euxqhl



Special Requirements



Over the Beach Test

1. Bolt hold open, magazine with 1 round inserted.
2. Weapon immersed in water 0.5m below surface.
3. Bolt closed (under water).
4. Weapon permitted to drain for 2 seconds maximum
5. Chambered round fired.



41 Series Meeting the Challenge



HK416



HK416 / 6.8



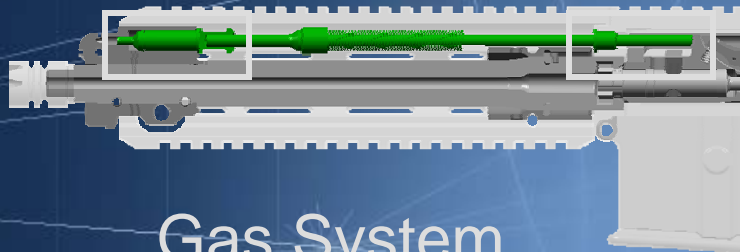
HK417

Commercial in Confidence

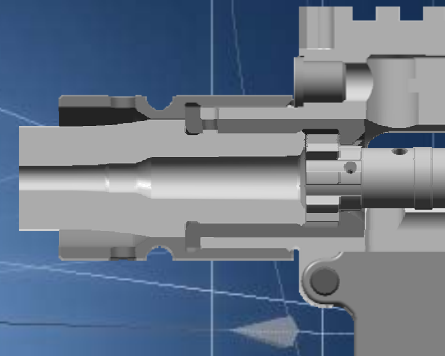
Meeting the Challenge



Key Features



Gas System



Barrel Nut

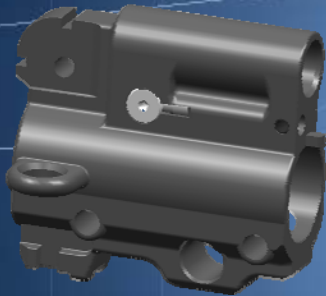


Firing Pin Safety

Meeting the Challenge



Key Features



Gas Block



Free Floating Rail System



Enhanced Buttstock

Meeting the challenge



Modularity HK416

10"



14,5



16.5"



20"



Commercial in Confidence

Meeting the challenge



Modularity HK417

12"



16"



20"



Commercial in Confidence

Meeting the challenge



Modular Accessories - UGL

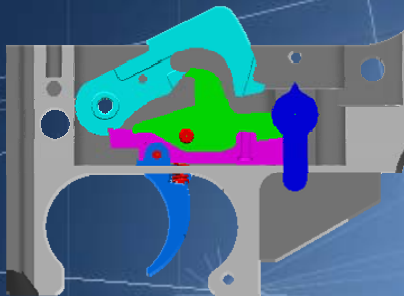


Commercial in Confidence

Meeting the challenge



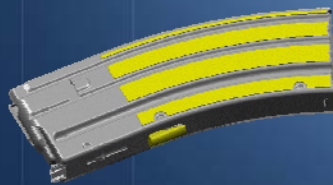
Modular Accessories



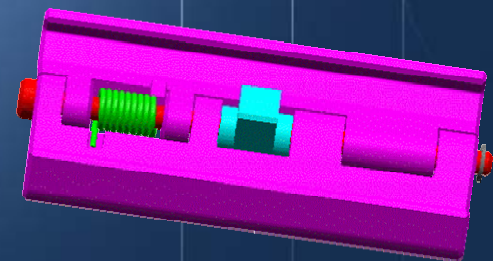
2 Stage Trigger System



Handle Grip V1/ V2



Safety BFA

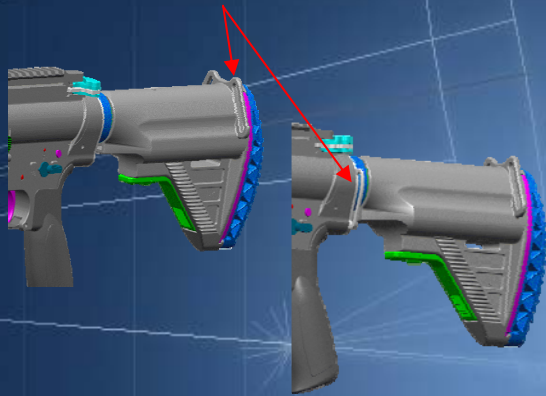


Harris Bipod Interface

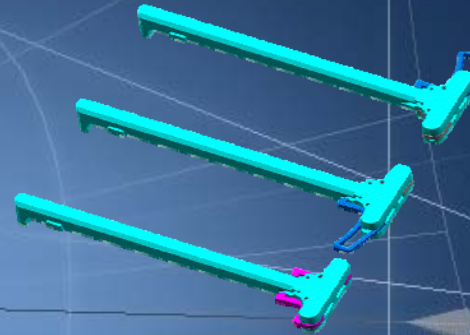
Meeting the challenge



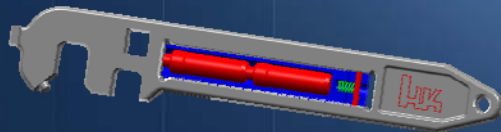
Modular Accessories



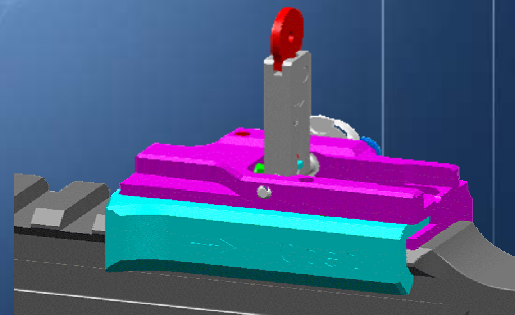
Sling Adapter



Cocking Lever



MFAS - Tool



Rear Sight

XM320



Project Timelines

■ 02/05	Contract Award
■ 11/05	Delivery of 60 XM320's and 60 DNS's
■ 12/05	LUE
■ 03/06	PPT
■ 07/06	PQT
■ 09/06 (06/07)	OT
■ 04/07	Milestone C

XM320



Project Timelines

- 06/07 Procurement of 60 Trials Weapons
- 06/07 OT
- 10/07 Procurement Phase

XM320



Build Standard 1/2005



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XM320



Weapon Modifications



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XM320



Build Standard 2007

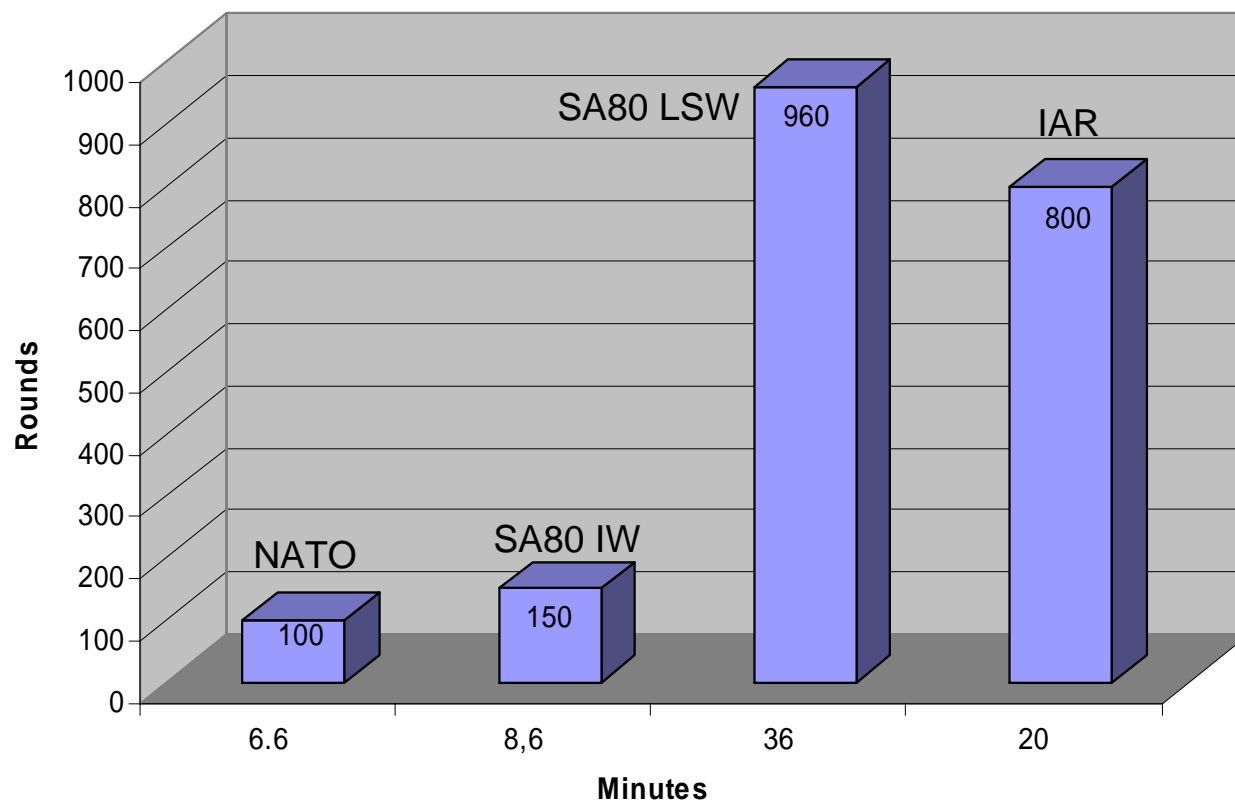


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IAR



Battlefield Mission

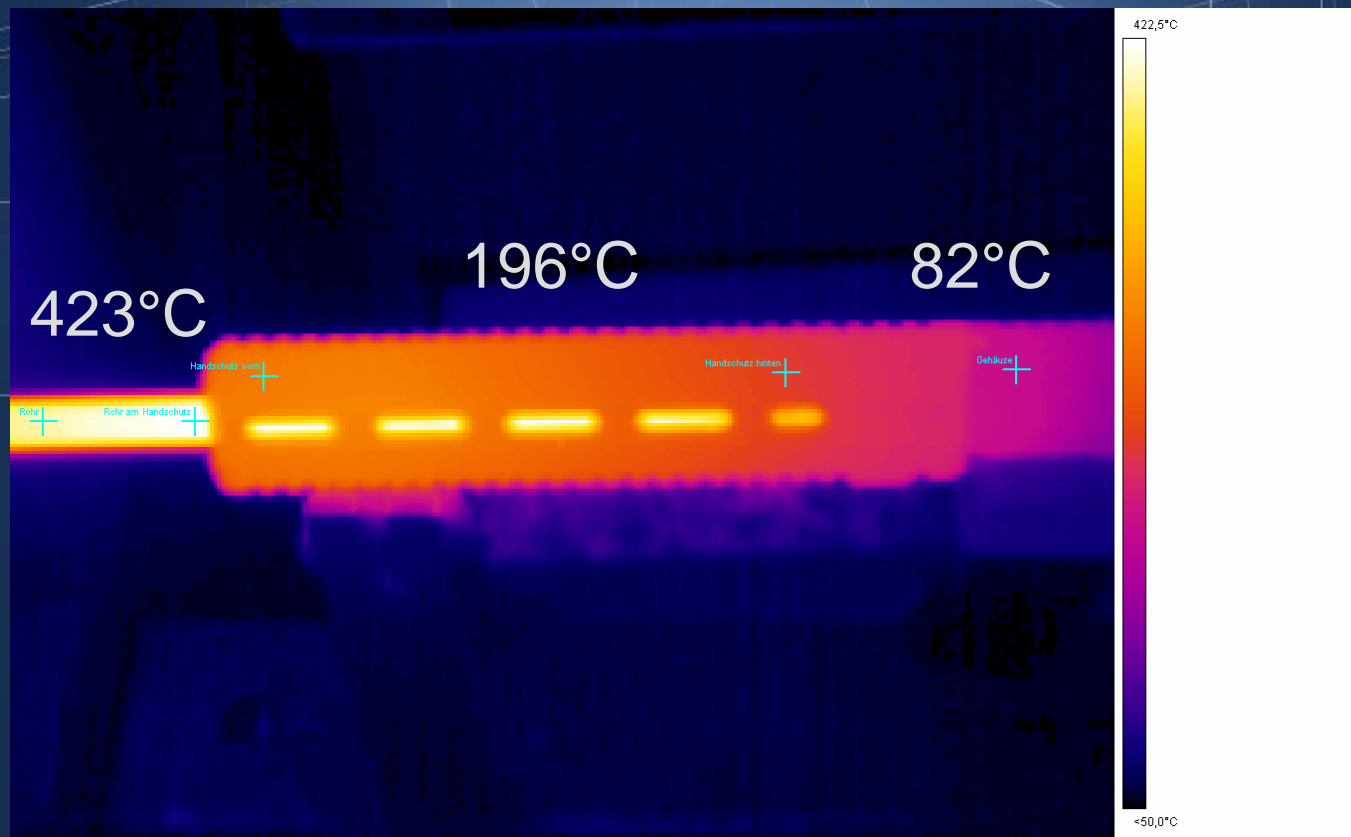


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IAR



IAR - Battlefield Mission – Thermal Image

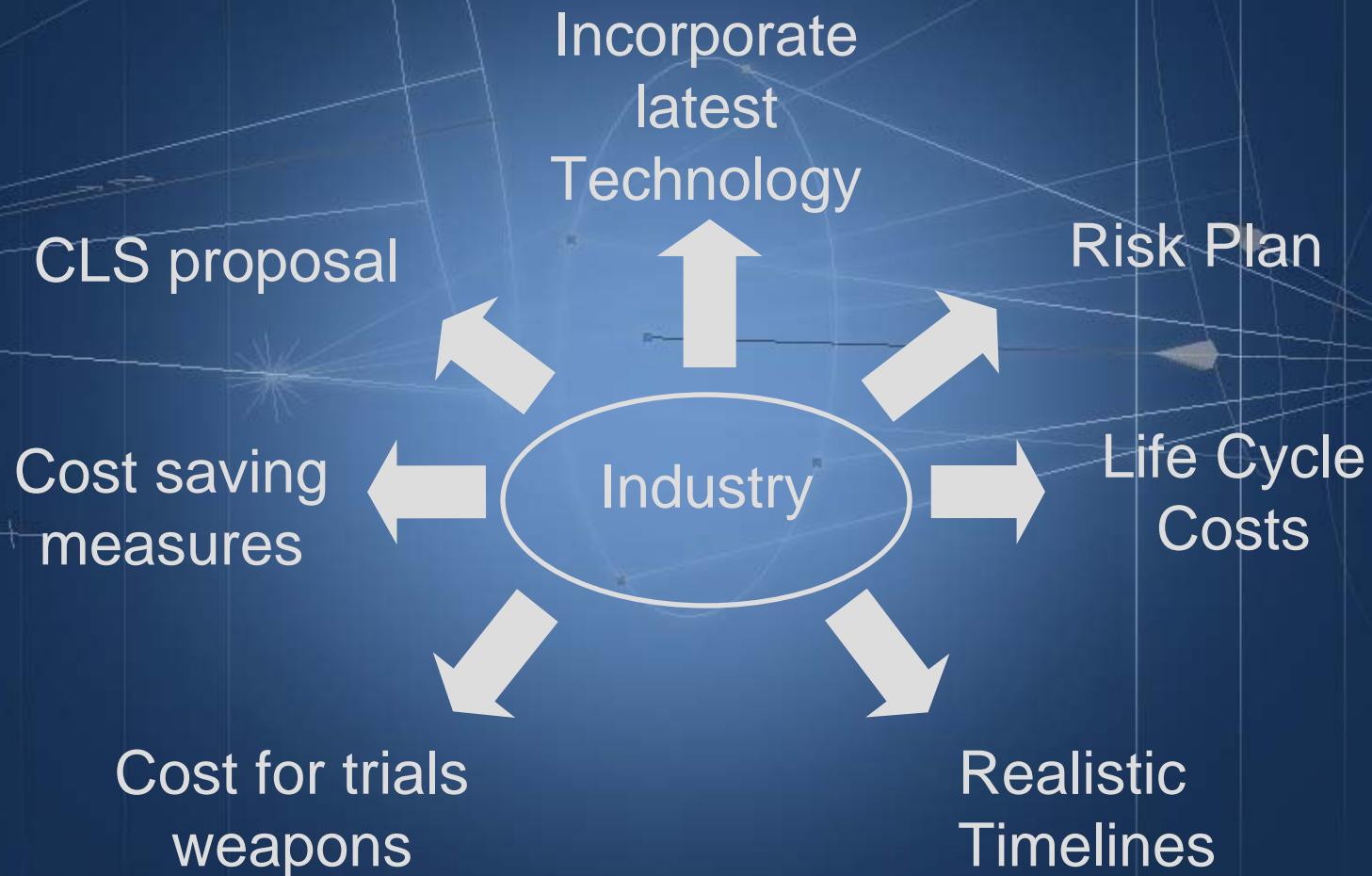


Commercial in Confidence

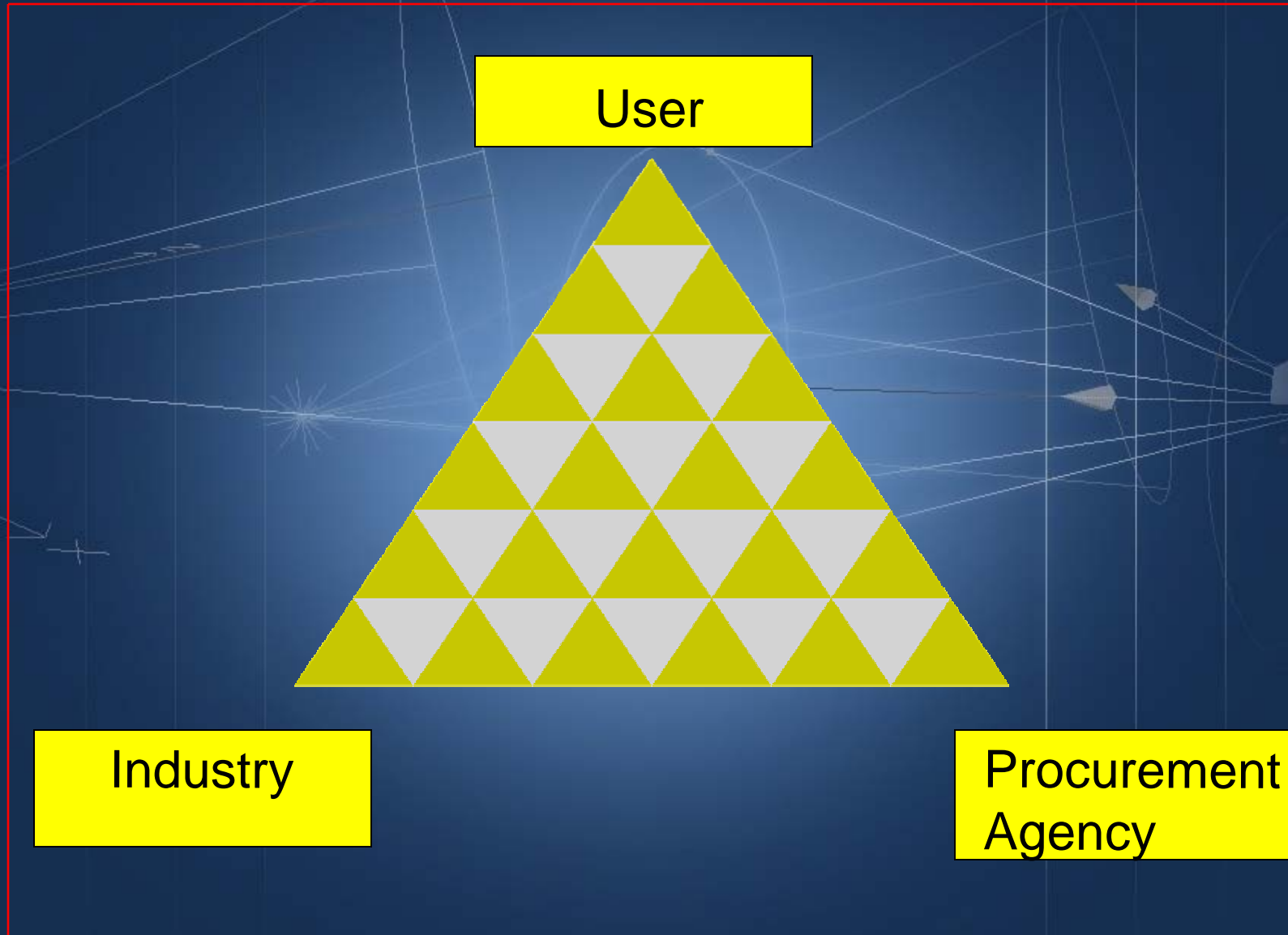
Customer Feedback to Industry



Industry Feedback to Customer



Golden Triangle



Final Point



We **All** owe our best efforts and cooperation to continually strive to improve upon the equipment that is relied upon to protect our way of life every day!



No Compromise!



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