

Information Dominance and UK Approach to Unmanned Systems

Air Vice-Marshal Mark Green
Director Joint Air Capability



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Information ~~Dominance~~ **Superiority** and the UK Approach to Unmanned Systems

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- **Information Superiority**
‘...the achievement of a better **understanding** than an adversary of the **battlespace** and the ways in which it could be **influenced**...’



Understanding The Changing Nature of the Threat



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UK UAS Portfolio



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SDSR 2010



Connected

Cluttered

Contested

Constrained

Congested



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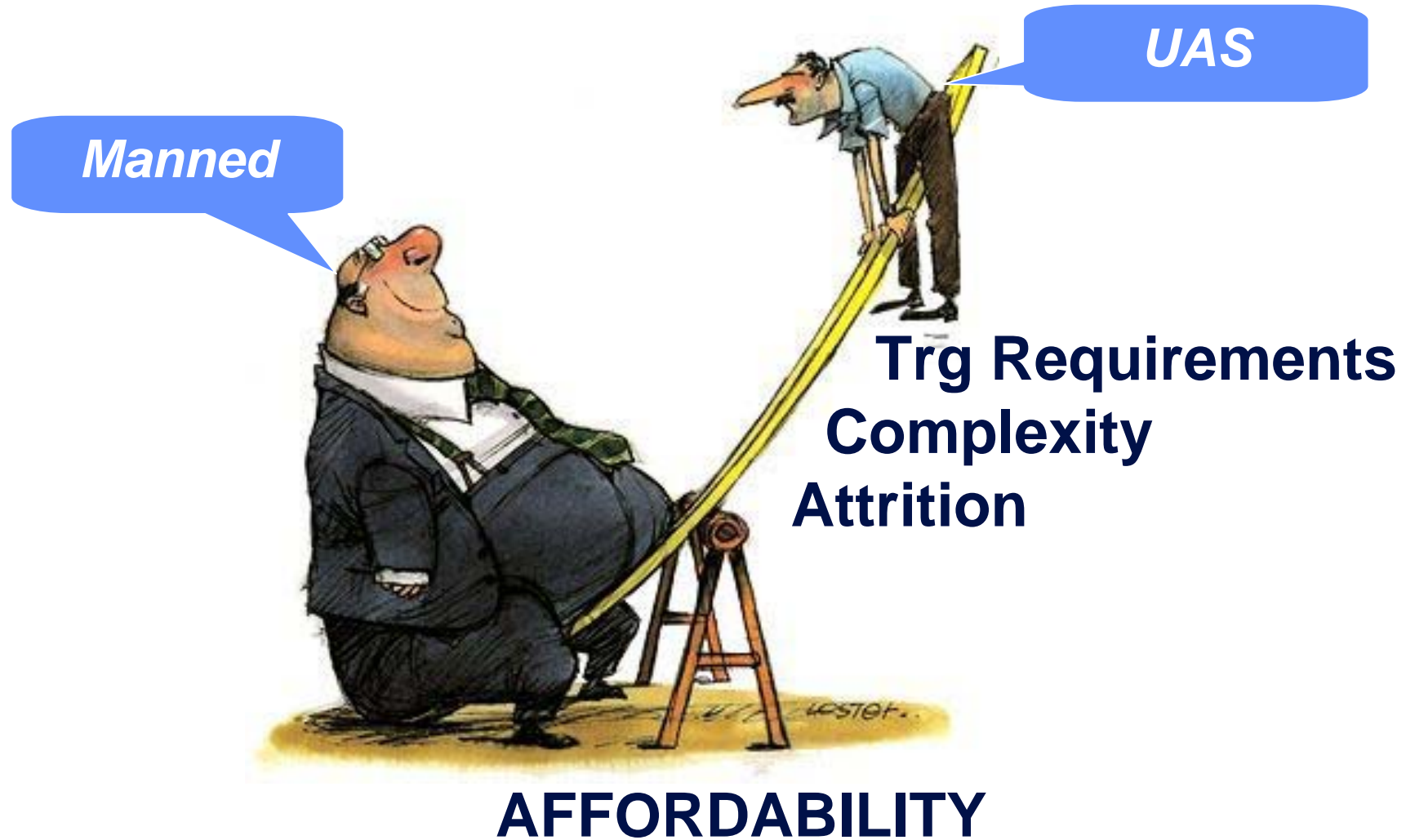
UK UAS Policy SDSR 2010

- *‘by the **2020**’s..... The fast jet fleet will be complemented by a growing fleet of **Unmanned Air Vehicles** in both combat and reconnaissance roles.*
- *‘we will **invest** in programmes that will provide **flexibility and advanced capabilities**, and reduce legacy capabilities which we are less likely to need in a world of precision weaponry, and where the battlespace increasingly involves **unmanned** and cyber operations’.*



COST – MANNED VS UNMANNED

Perception or Reality?



Air Power Capability

Control of the Air

Information Superiority

Mobility and lift

Survivability

Responsiveness to fleeting opportunities

Endurance

Reach

Payload

Precision of effect

Political utility

Attack



Attack

	Generation	
	5	
Survivability	✓	
Responsiveness to fleeting opportunities	✓	
Endurance	✓	
Reach	✓	
Payload	✓	
Precision of effect	✓	
Political utility	✓	



Attack

	Generation	
	5	6
Survivability	✓	✓
Responsiveness to fleeting opportunities	✓	x5
Endurance	✓	x10
Reach	✓	x3
Payload	✓	x2
Precision of effect	✓	✓
Political utility	✓	x2

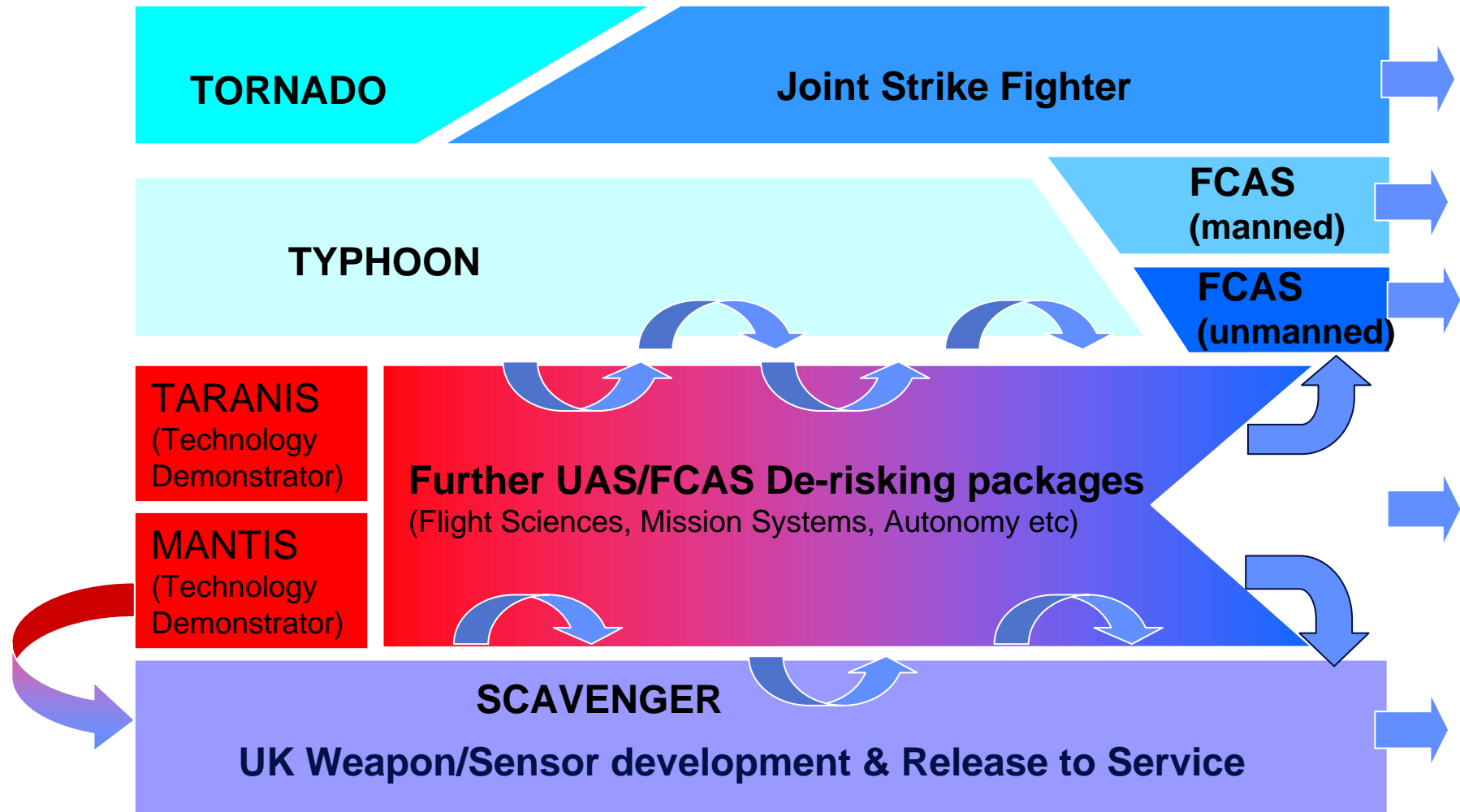


Mobility and Lift/Information Superiority

	<i>Generation</i>	
	5	6
Survivability	✓	✓
Responsiveness to fleeting opportunities	✓	x5
Endurance	✓	x10
Reach	✓	x3
Payload	✓	x2
Precision of effect	✓	✓
Political utility	✓	x2



UK Air Combat ISTAR Systems Roadmap



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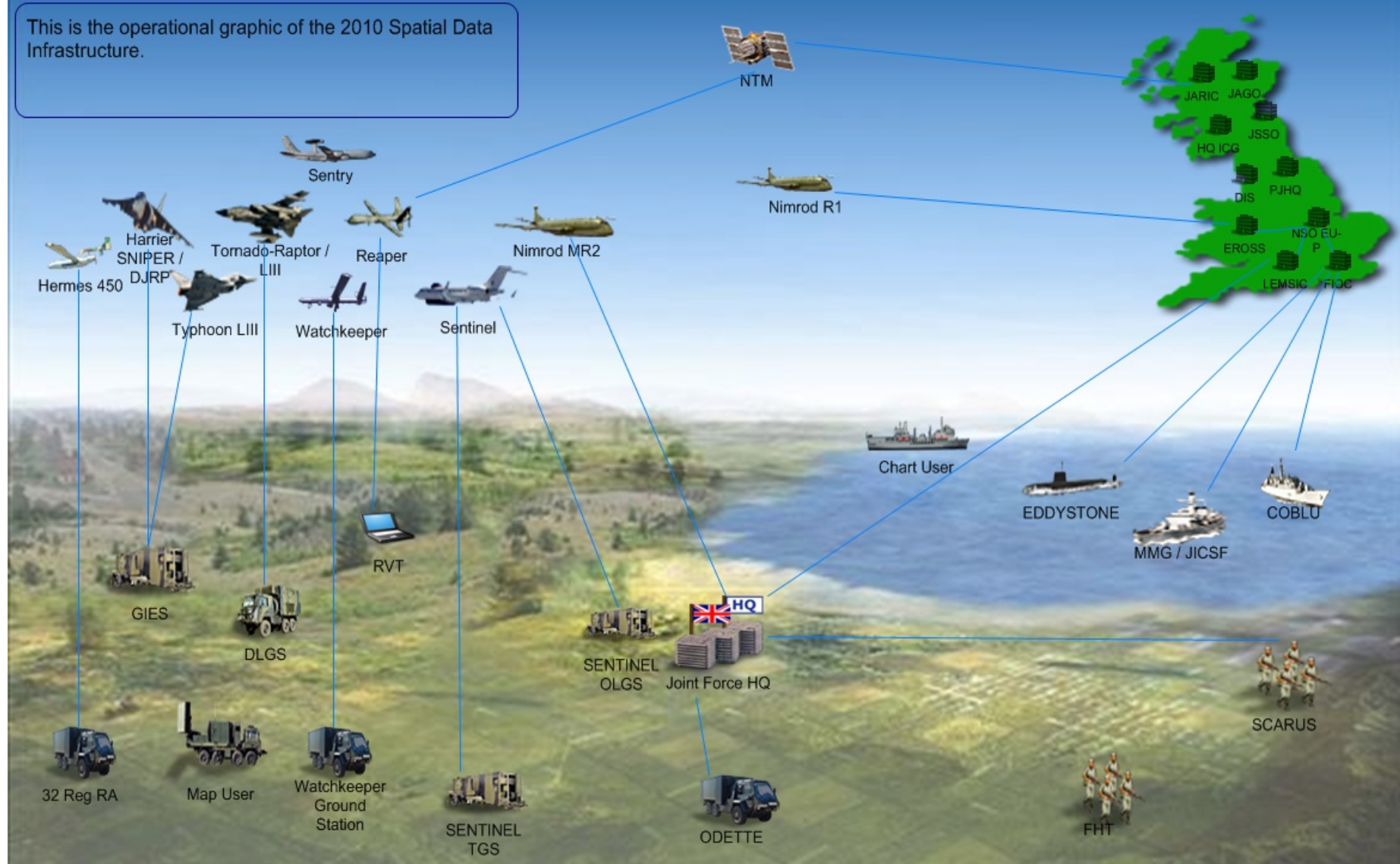
SCAVENGER

- **Requirement**
 - **Persistent ISR Capability**
 - **Ability to Prosecute Time Sensitive Land and Maritime Targets**
- **Challenges**
 - **Adaptive Procurement/Spiral Development**
 - **Acceptable levels of Sovereignty**
 - **Automation vrs Autonomy**



ISTAR Provision 2010

This is the operational graphic of the 2010 Spatial Data Infrastructure.

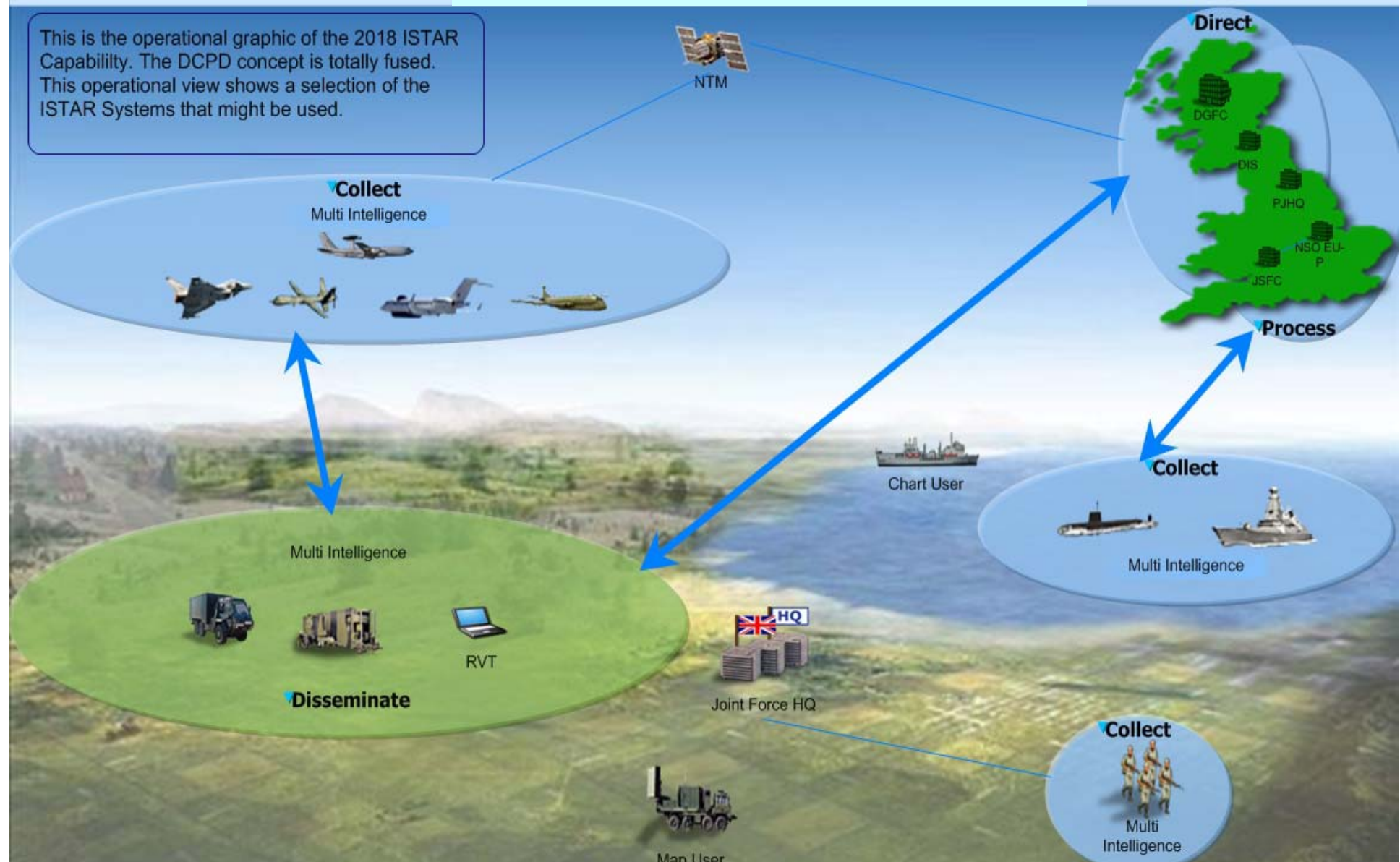


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ISTAR Provision 2018

This is the operational graphic of the 2018 ISTAR Capability. The DCPD concept is totally fused. This operational view shows a selection of the ISTAR Systems that might be used.



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DRONE STRIKES ARE JUSTIFIABLE

- Drones are so accurate that individual terrorist suspects or insurgents can be targeted with little risk to civilians.
- The Pentagon says al-Qaeda is facing "strategic defeat" because eight out of its top 20 leaders have died. Most were killed by drones.
- Although they are "unmanned", it takes over 100 people to operate an armed drone. Decisions to fire are taken only when the remote pilots are sure they have found their target.

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