

Transformation, modernisation and building
expeditionary capabilities of the Bulgarian Air Force
AFCEA VARNA International Conference on 2-3 Oct.
Plovdiv

Capabilities oriented, scenario-based and operational concept driven air forces planning – the role of the operational analysis

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Agenda

1. Operational Analysis Capabilities in BAS
2. Defense and Force Planning Model
3. AF Operational Analysis Model
4. Real Options for the Bulgarian AF
5. Decision
6. Implementation
7. Could we help?

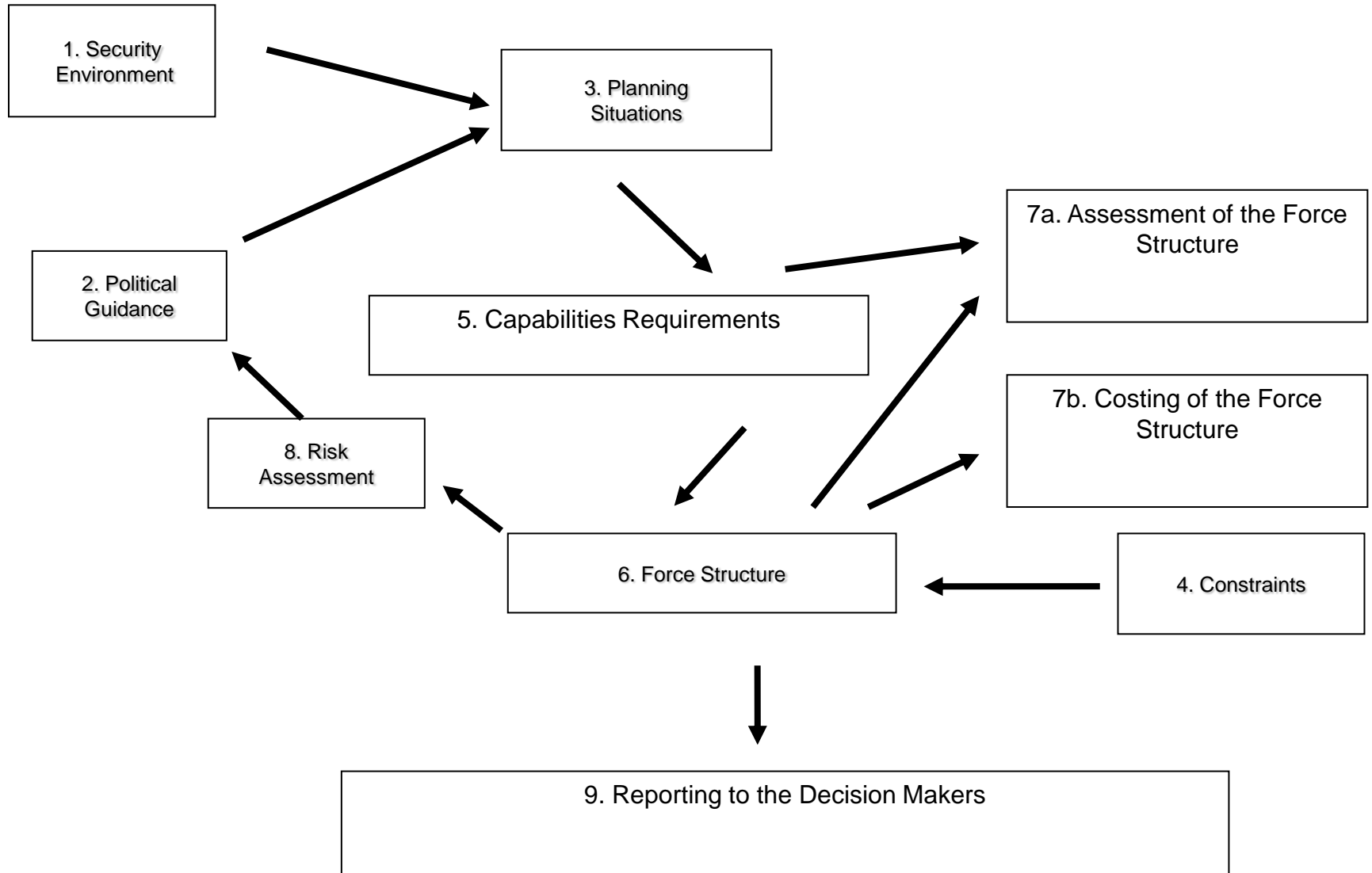
Operational Analysis Capabilities in BAS

NATO SfP981149 Project 2005-2007:

- Center of Operational Analysis in Security
- Joint Training Simulation and Analysis Center - Security

Research Infrastructure Cluster between
IPP-BAS, IMI-BAS, SRI-BAS, DSC-GS
and consultants from old NATO countries

Defense and Force Planning Model



AF Operational Analysis Model

1. Scenarios – sovereignty and expeditionary ops
2. Missions – Air sovereignty (regionally) / Air support to LF and Navy
3. Restrictions – existing structures / money / time
4. Capabilities – multirole fighter and its infrastructure (C4ISR, logistics, training, ...)
5. Force packages – sovereignty / expeditionary
6. Decision on Transition to 2015 – NOW and to 2030 - SOON
7. Change / Risk management - permanent

AF procurements in the last 10 years – close to ... 2 B BGN

1. ASOC
2. 6 Bell 206 helicopters
3. Modernization of P-37, P-18, P-14
4. Modernization of MiG-29 several times
5. Modernization of Su-25
6. Modernization of air bases – Graf Ignatievo, Bezmer, Kamenets,.... – construction and CINS
7. TETRA system and other comms systems
8. PC-9, PC-12
9. 12 Cougar + 6 Panther
10. Modernization of Mi-17 and Mi-24
11. 5 (+4) Spartan
12. Modernization of Parol System
13. Maintenance of SAM, radars, ...

Real Options for the Bulgarian AF

- MiG – 29 with transition to new fighter in 5 years
 - MiG – 29: the last Bulgarian fighter
 - Russian SAM: the last Bulgarian SAM
 - Russian SAM with transition to new SAM in 5 years
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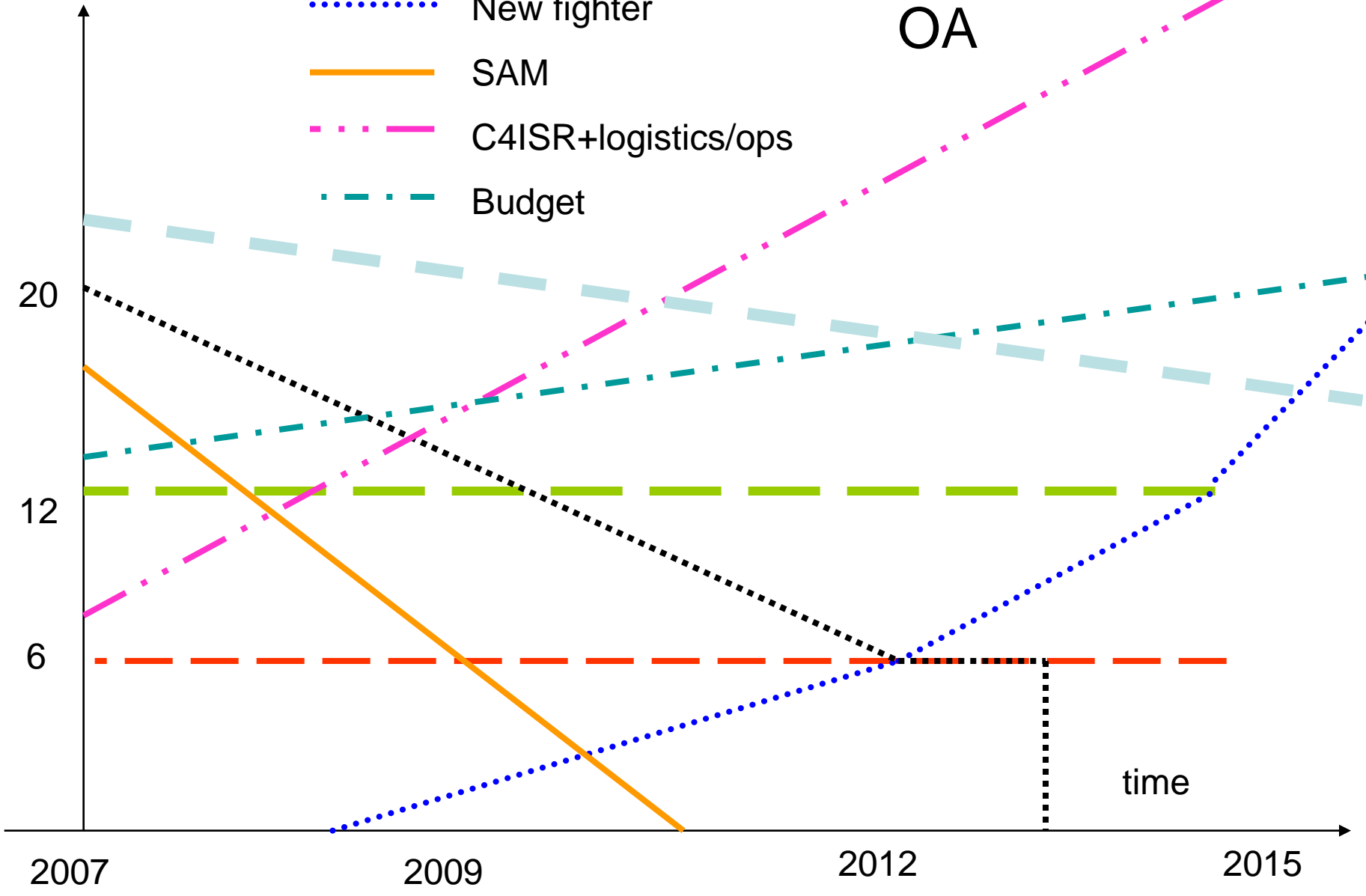
- C4ISR – depends on above decisions
- Logistics - depends on above decisions
- Training – depends on above decisions

Remarks:

1. Transport aviation / helicopters are to support LF, civil protection, other non military missions – will be operated by AF, but are not AF primary mission
2. All decisions are in NATO, EU and strategic security partnership with US context

Illustrative Decision after OA

- Personnel
- MiG-29
- New fighter
- SAM
- C4ISR+logistics/ops
- Budget



time

Implementation

1. Government to Government strategic cooperation
2. Planning, programming, budgeting
3. Program offices for execution
4. Defense Industry involvement
5. Education and training
6. Change management of AF
7. Strategic planning for 2030 and beyond

Could we help?

1. AF Transformation Study
2. Development of a model with experimentation with the model in support to decision making
3. Training of people
4. Management / integration consulting
5. Facilitating industrial cooperation and transfer of technologies
6. Offset and spin-offs from AF transformation
7. Long term research in air space domain (example of ROSA) – security and aero-space research program

Example of Romanian Space Agency National Roles

- Acting under the Authority of the Romanian Government - Ministry of Education and Research (1995)
- **Reporting to the Sub-commission for Space – RO Parliament (2007)**
- Executive president for the Inter-Ministerial Board on Security Research (2004) and Inter-agency INSPIRE Group of experts
- Interagency coop. : Ministry of Defence, M. Foreign Affairs, M. Agriculture and Environment, M. of Interior, M. Telecomm. and IT, Romanian Intelligence Service
- Contract authority and PMU for the national RTD Programs on Space, Aeronautics, Security (1995-2006)
- Component of the National Emergencies Council (2000)
- National Certification Authority for GRID information infrastructures (2006)
- Certified security and classification organizational structure
- Authorized to establish research and development Centers oriented on specific objectives of the Romanian RTD Plan

Example of Romanian Space Agency International Roles

- ROSA is the appointed **national representative** for:
 - **European Space Agency (ESA)** – by Laws 40/1993 and 01/2007 (1992 – p)
 - United Nations – Committee on the Peaceful uses of Outer Space (COPUOS) – by mandate from the Foreign Ministry (1994 – p)
 - Consultant for the EU Space Council / European Space Policy
 - EC – FP6 – **AEROSPACE PC** (2001-2006)
 - EC – FP7 – **SPACE PC, SECURITY RESEARCH PC, TRANSPORTS PC** (Aeronautics and Galileo)
 - EC – GNSS Supervisory Authority (GSA), GMES Advisory Council (GAC) (2007)
 - INSPIRE – by mandate from the Ministry of Education and Research (2005 – p)

 - NATO – Scientific Committee “Science for Peace and Security” (2004 – p)
 - **NATO - RTO** – Space ST Advisory Group (SSTAG) (2005 – p)

 - Space agencies: NASA, CNES (French Space Agency), Russia ROSKOSMOS (negotiations), Hungary, Bulgaria, Azerbaijan . . . – Bilateral agreements, ASI (Italian Space Agency), DLR (German Space Agency) – projects
 - International organizations membership and / or national representative: COSPAR, IAF, IAA, EURISY, ACARE, EREA, ASD, EDA, others, bilateral agreements with research organizations

Conclusion

16.X.2012 – a hundred years anniversary of combat aviation

Space, air and information superiority – key for success of LF and Navy as well as for the NATION success – joint procurement with other NATO nation not excluded

Planning:

- Long term
- Comprehensive
- Realistic

Based on:

- Scenarios
- Capabilities
- Operational concept

Solution: Operational Analysis, Virtual Experimentation