National Experiences in SatCom

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Biography

- **Name**: Krzysztof CYBULSKI (COL Ret.)
- **Poland**
- **Information Systems Inspectorate**
- **Job Title**: Deputy Division Head
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- **Email**: kcybulski@mon.gov.pl
- **Background**:
  - 32 years of military service
  - The General Staff of the PAF – J6 Directorate (2006-2012, 2014)
  - Head of TDL & NAVSTAR GPS Office (2012-2013)
  - Project Manager for White Eagle Network (WEN) – ext. to AMN (Afghanistan Mission Network)
  - Main Coordinator for implementation of Tactical Data Link capabilities in the PAF
  - CIS experience from NATO (JFC Brunssum (2003-2004),NCSA Sector Brunssum – Deputy Cdr – 2004-2006) and ISAF (CJ6 Chief, ISAF HQ Kabul – 2008-2009)

POLAND – SOME FACTS AND FIGURES

1. **Capital**: Warsaw
2. **Population**: 38,34 million
3. **Currency**: PLN
   1 € = ~4,2 PLN
   1 $ = ~3,9 PLN
5. **Political system:**
   republic (parliament,
   president, prime minister)
4. **Surface area**: 312 685 km².
5. **Active Military Manpower:**
   100 000 (+20 000 National Reserve
   Forces)
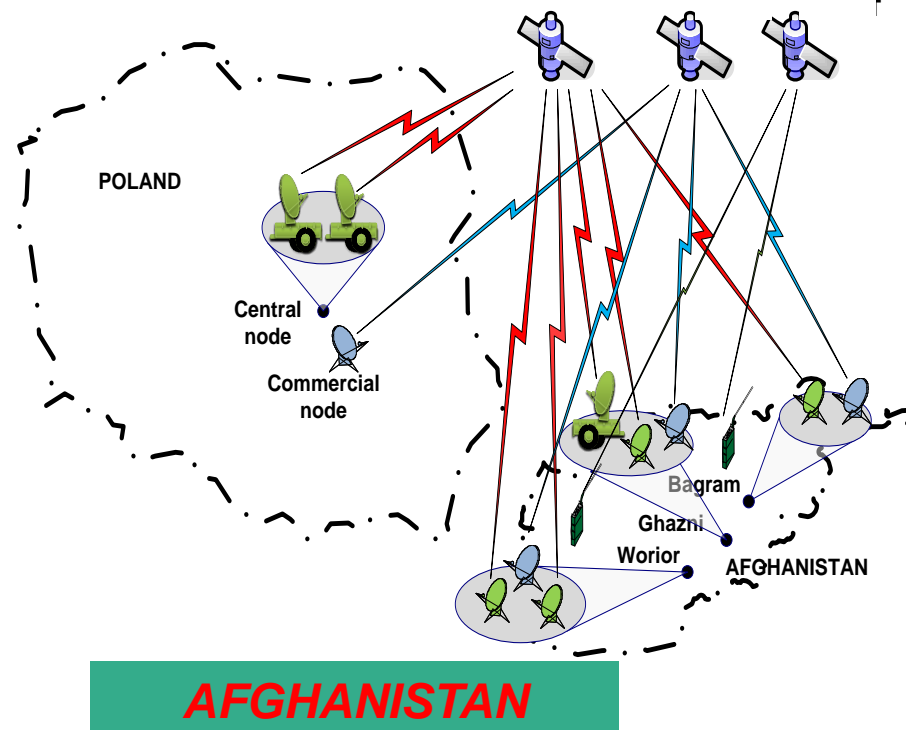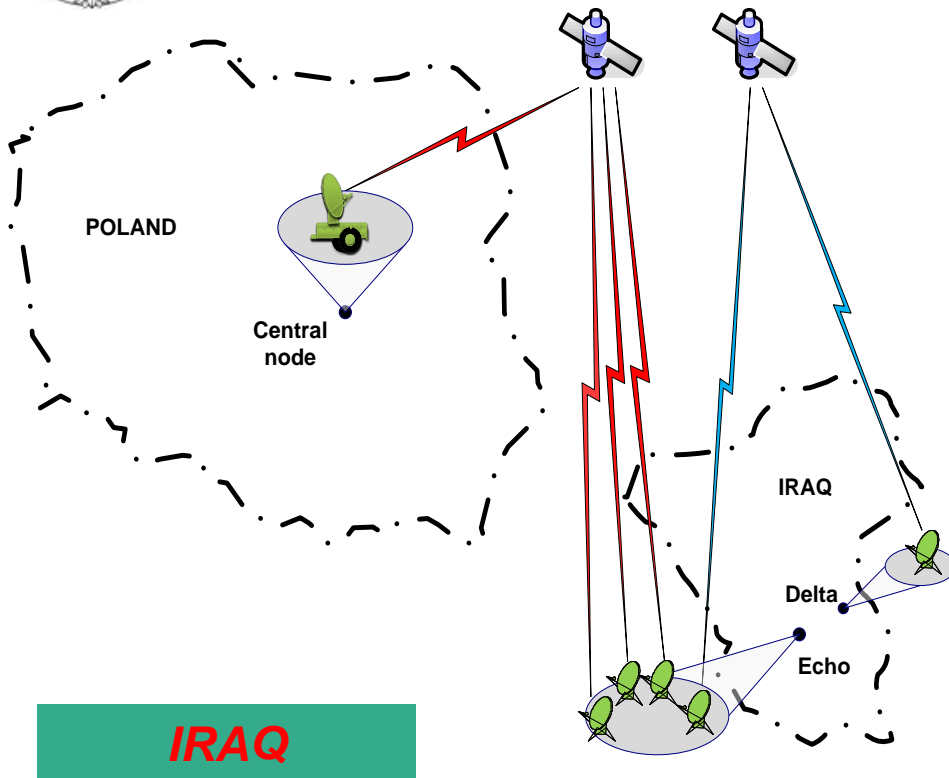6. **Defence budget 2016**:
   PLN 36,973.05 million

since1999

since 2004

SATELLITE COMMUNICATIONS
IN THE MAIN MISSION OF THE PAF

IRAQ

AFGHANISTAN

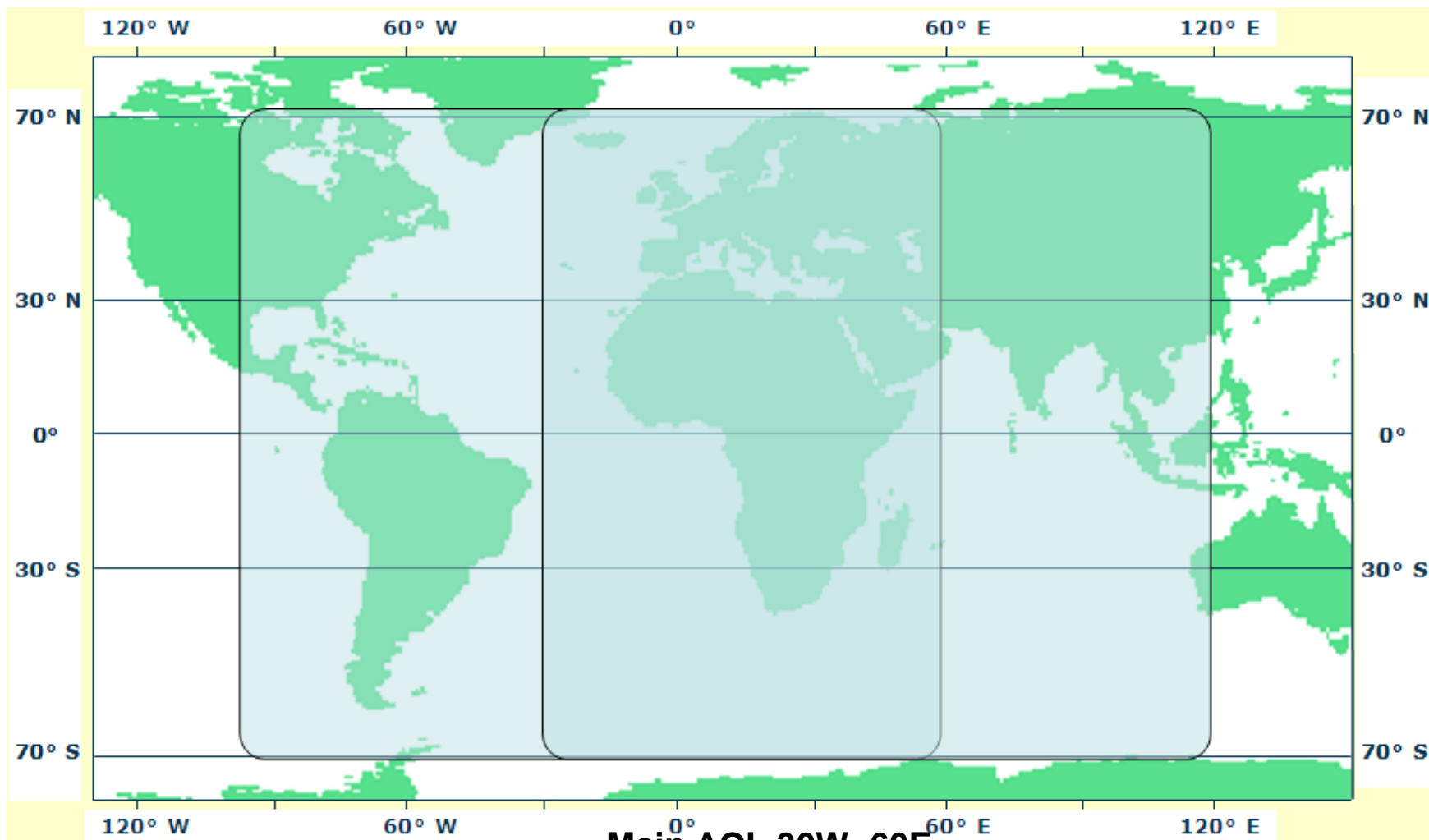| IRAQ	AFGHANISTAN
1. Commercial space segment – C, Ku.	1. Commercial space segment – C, Ku.
2. Commercial anchor station	2. Military anchor stations
3. Commercial SAT terminals	3. Military SAT terminals
4. BW – 256 kbps – 6 Mbps (SCPC)	4. BW ~ 15 Mbps (TDMA, SCPC)

CURRENT SATELLITE COMMUNICATIONS CAPABILITIES

1. **Bandwidth occupied -** 25MHz:

   - TDMA

   - SCPC

2. **Transportable Satellite Ground Terminals -** 50 units;

3. **Manpack terminals -** 20 units;

4. **Maritime terminals -** 4 units;

5. **IRIDIUM terminals: Handset, BGAN, Maritime –** 250 units;
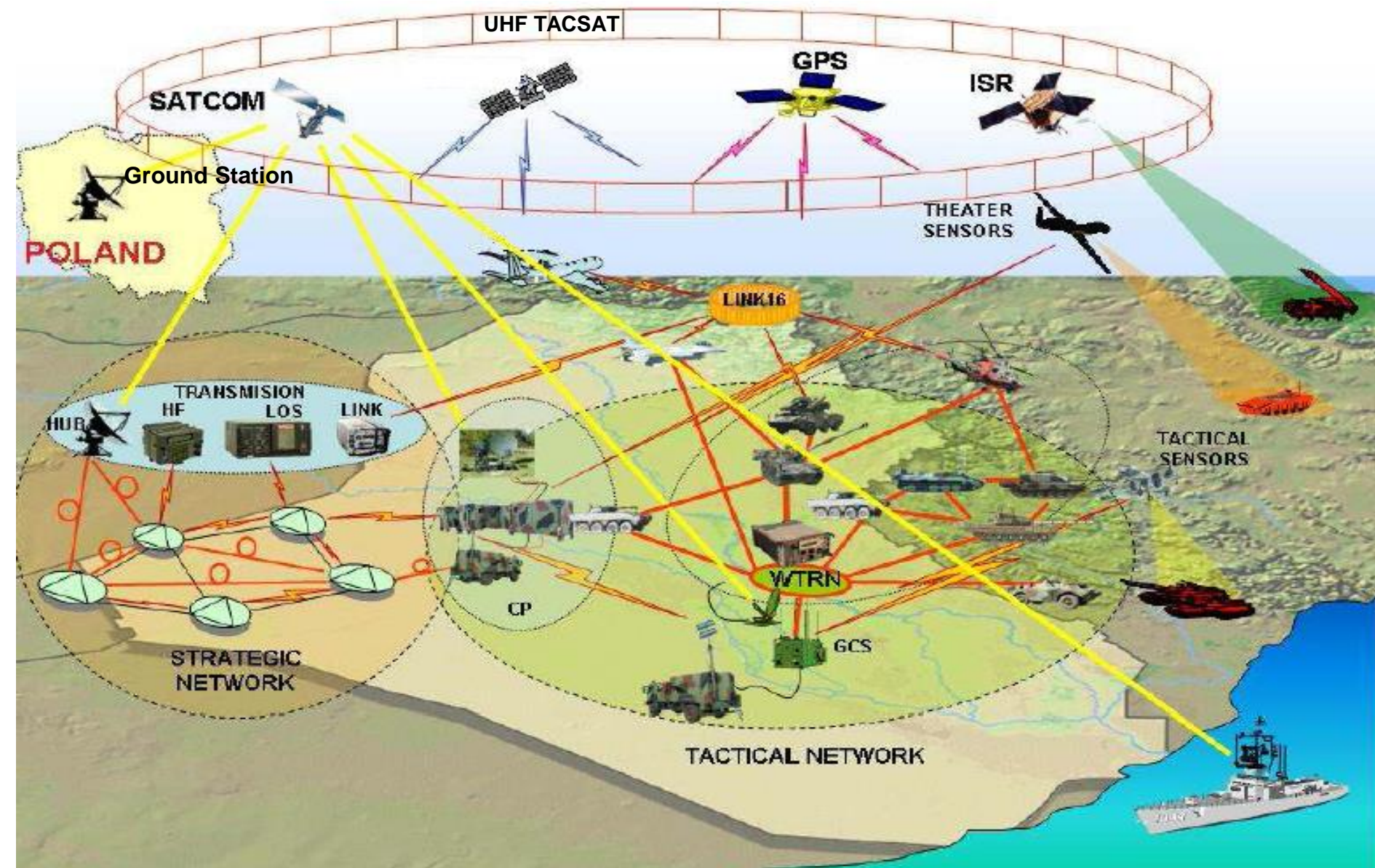
6. **TACSAT terminals -** 2200 units.

Main AOI 30W- 60E

Additional AOI 30W- 60E 100W – 120E

6

FUTURE CHALLENGES

1. Implementation of Satellite Network Management Station;

2. Improvement of the existing satcom system, by means of bandwidth utilization and number of terminals involved;

3. Introduction of MILSATCOM technology to mission critical networks (ISTAR, SF, Navy, strategic backbone);

4. Provision of satellite capabilities to emerging military technologies (UAV, ISR);

5. Introduction of new areas of international cooperation (EU SatCom Market, GovSatCom, MUSIS).

QUESTIONS ?

„ We must bear in mind that there is nothing more difficult and dangerous, or more doubtful of success, than an attempt to introduce a new order of things …"

Niccolò Machiavelli, The Prince