

SAFETY CONSIDERATION SESSION

ILS AT MOSTAR AND TUZLA AIRPORTS

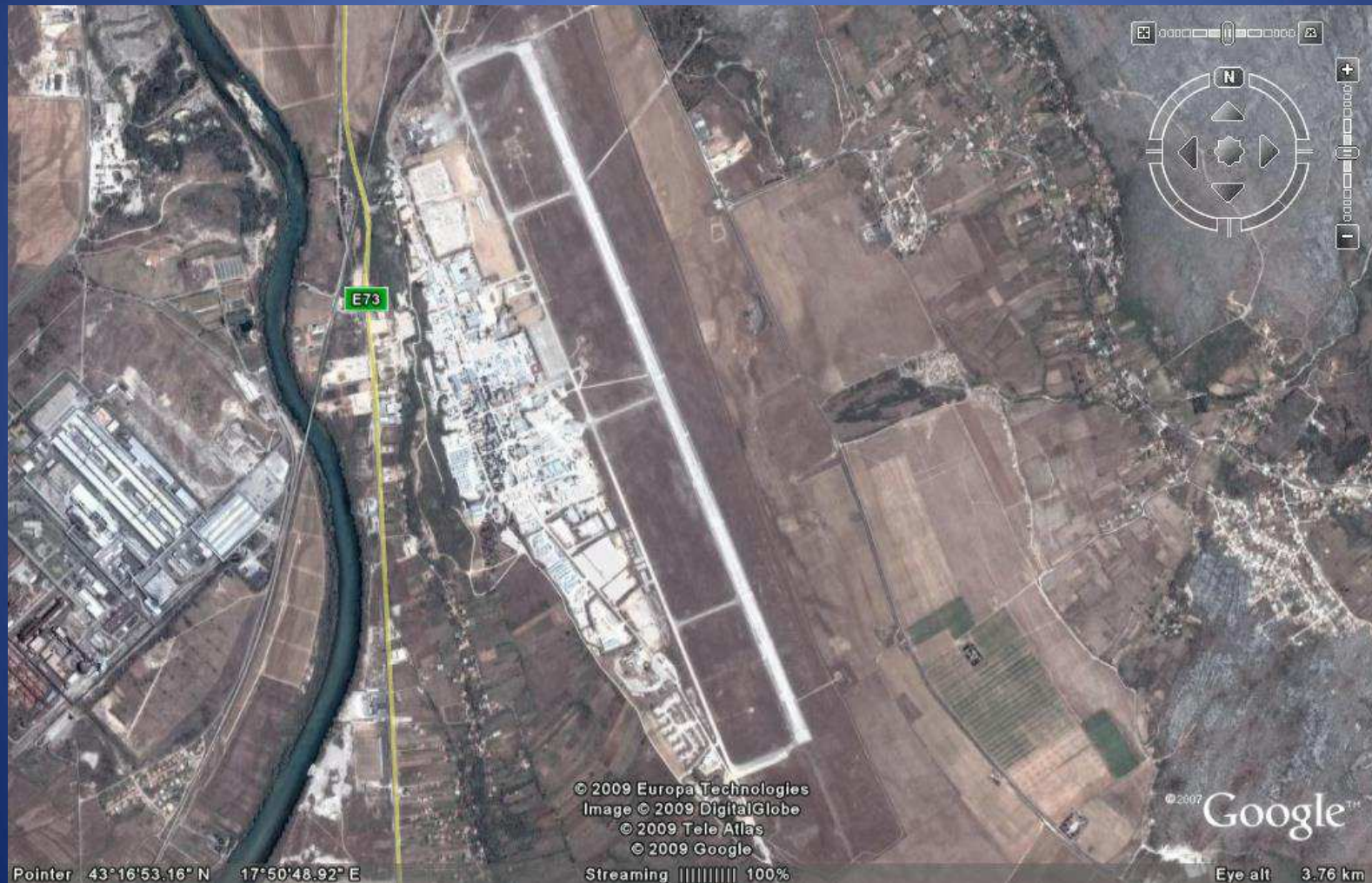
Sarajevo, 12 May, 2009.

INSTRUMENT APPROACH CHART
CAT A B C
AD ELEV: 156 THR: 138
MOSTAR (LQMO)
VOR/DME-CIRCLING RWY 34



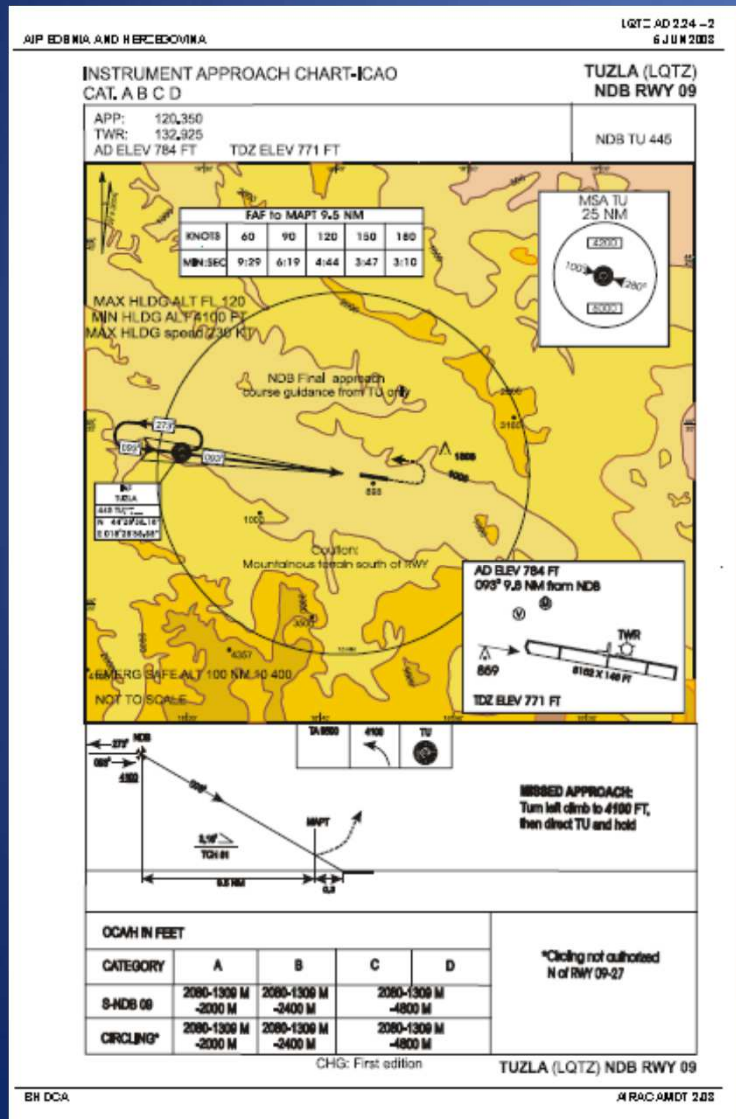
-(VOR/DME CIRCLING RWY 34

LAYOUT OF MOSTAR AIRPORT



CURRENT SITUATION TUZLA

TUZLA AIRPORT HAS A
NON-PRECISION
APPROACH:
NDB RWY 09



LAYOUT OF TUZLA AIRPORT



CHANGE

TO INTRODUCE ILS SYSTEMS AT MOSTAR AND TUZLA AIRPORTS

BENEFITS:

CURRENT NON-PRECISION APPROACH WILL BE REPLACED WITH PRECISION APPROACH

AS A RESULT THE THE PILOT'S WORKLOAD WILL BE REDUCED DURING THE APPROACH

LOWER OPERATIONL MINIMA WILL BE PUT IN PLACE

ILS COMPONENTS

- LLZ 421 Transmitter 1F Dual with Antenna
- GP 422 Transmitter 2F Dual with Antenna
- DME 415 Dual with Antenna Collocated with GP 422
- Remote Control Status Equipment RCSE 443
- Control Tower Unit CTU
- **Spare Parts and Test Equipment**

MOSTAR AIRPORT

TWO CONFIGURATION OPTIONS

FIRST OPTION

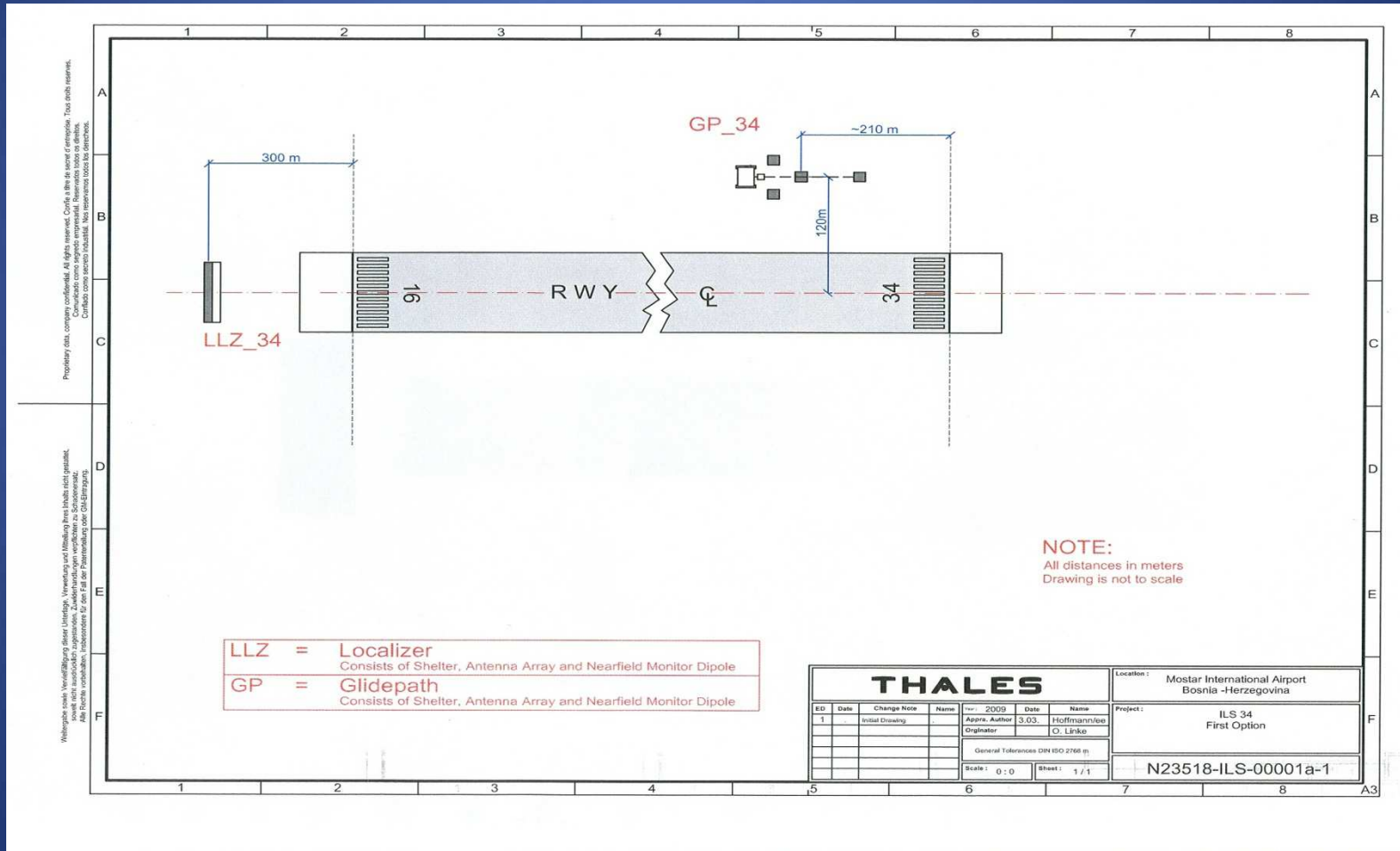
- STRAIGHT IN APPROACH using steep Glide Angle

RECOMMENDATION:

- LLZ Antenna located about 300 meters from threshold 16
- GP Antenna at the location of 120 m right hand side (in approach direction) from RWY CL and about 210 m from threshold 34

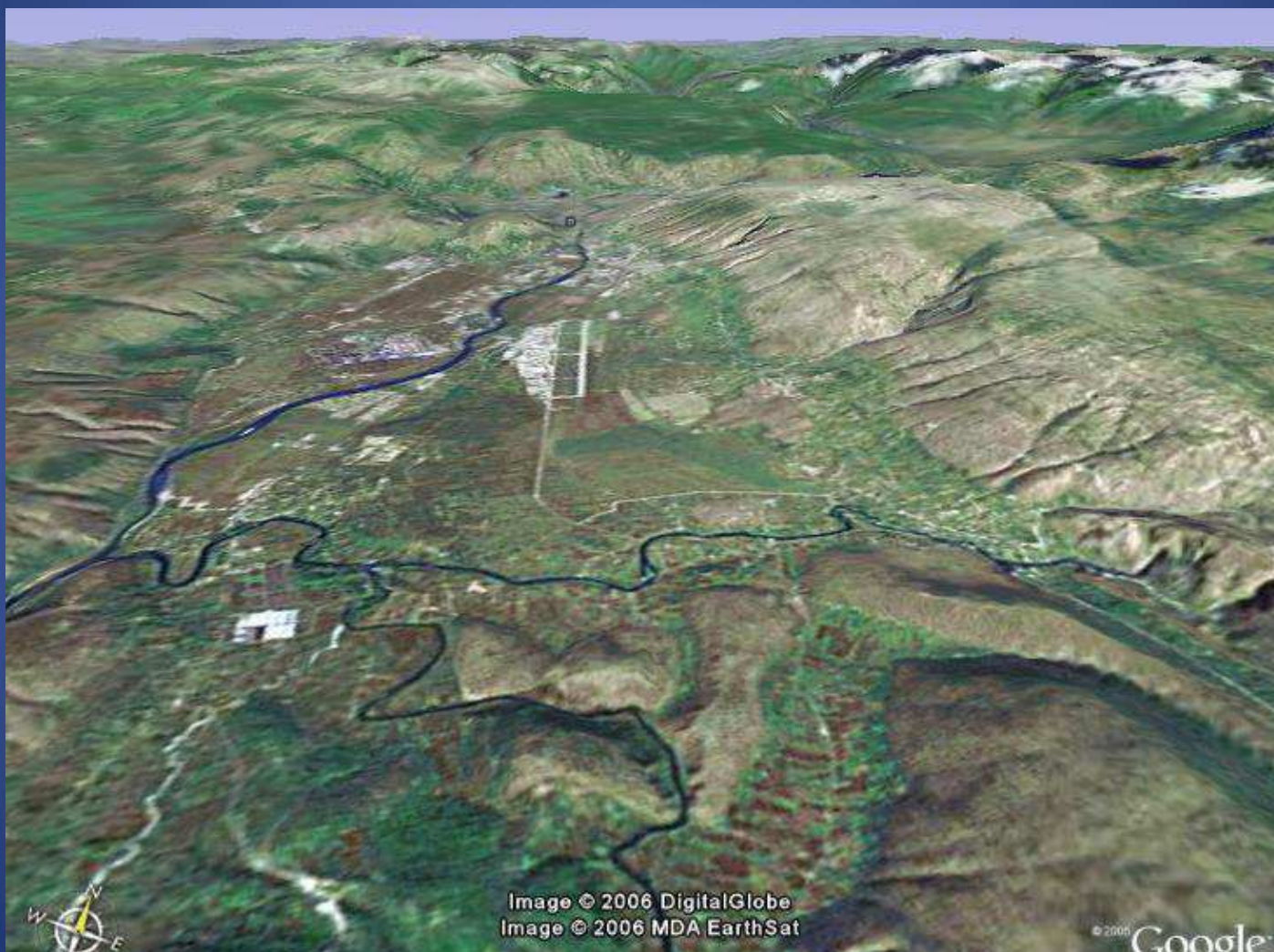
MOSTAR AIRPORT

ILS 34 Straight in Approach



MOSTAR AIRPORT

ILS 34 Straight in Approach



Complex surrounding topography

MOSTAR AIRPORT

TWO CONFIGURATION OPTIONS

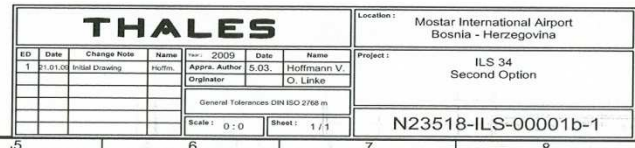
SECOND OPTION

- OFFSET APPROACH using aprox. $3,2^{\circ}$ Glide Angle

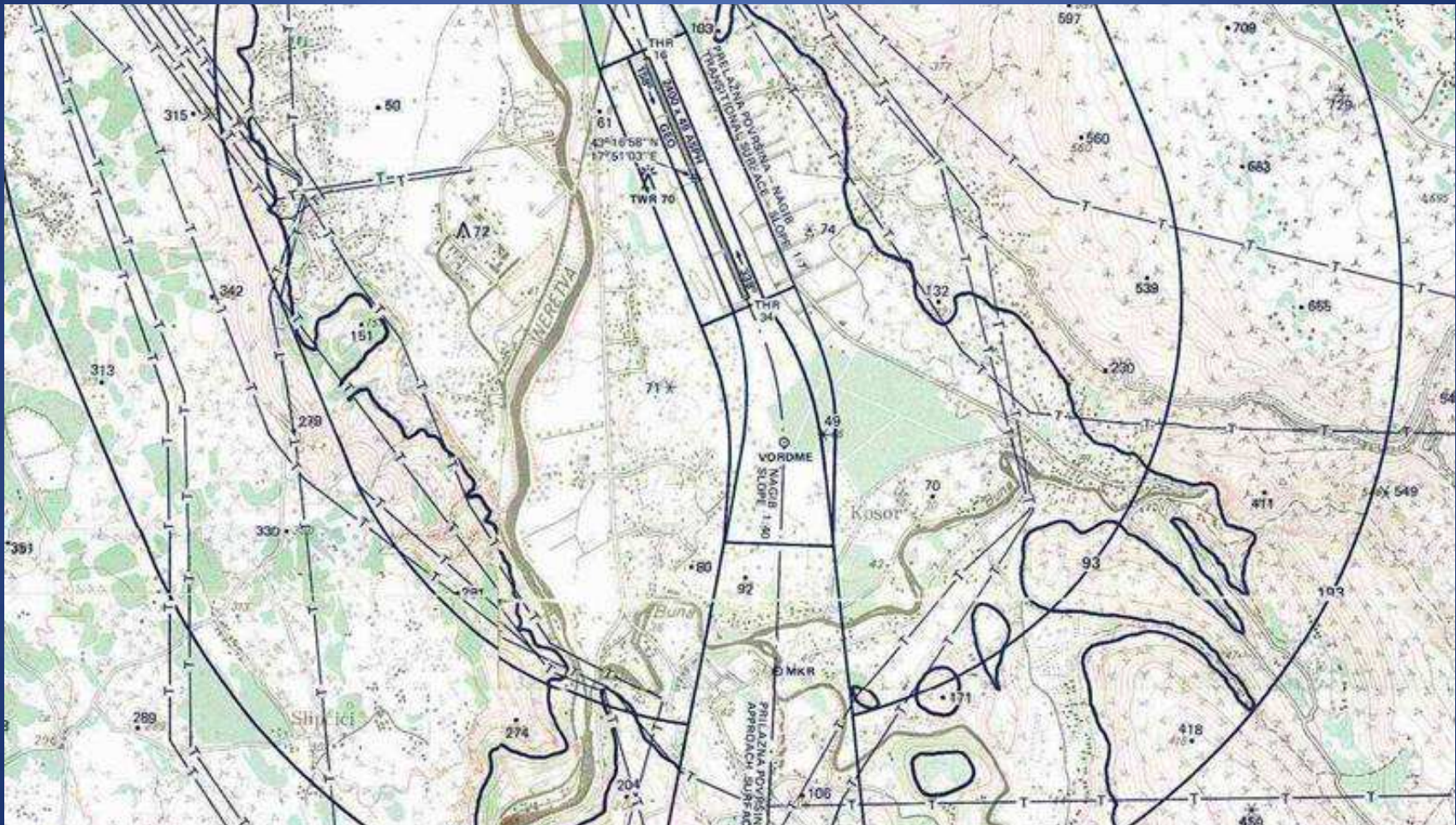
RECOMMENDATION:

- LLZ Antenna located rectangular on a virtual extended centre line from the DVOR to the North near (inside) the airport fence
- GP Antenna at the location of 227 m from threshold 34 and about 329 m right hand side (in approach direction) from the RWY CL

ILS 34 Offset Approach



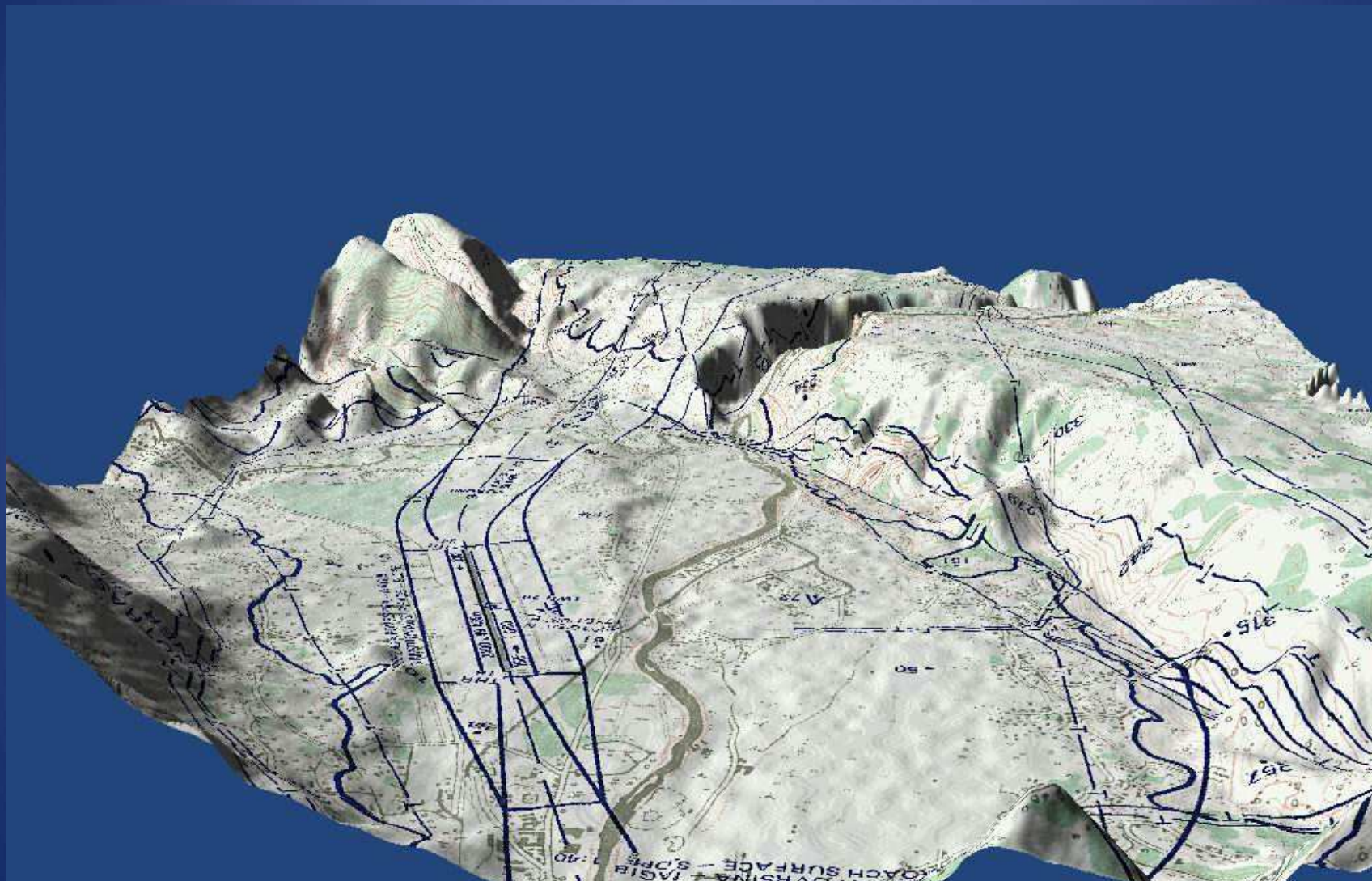
MOSTAR AIRPORT ILS 34 Offset Approach



Mostar Airport - Obstacle Chart

MOSTAR AIRPORT

ILS 34 Offset Approach



Mostar Airport - Obstacle Chart

MOSTAR AIRPORT

Power supply and signal cabling

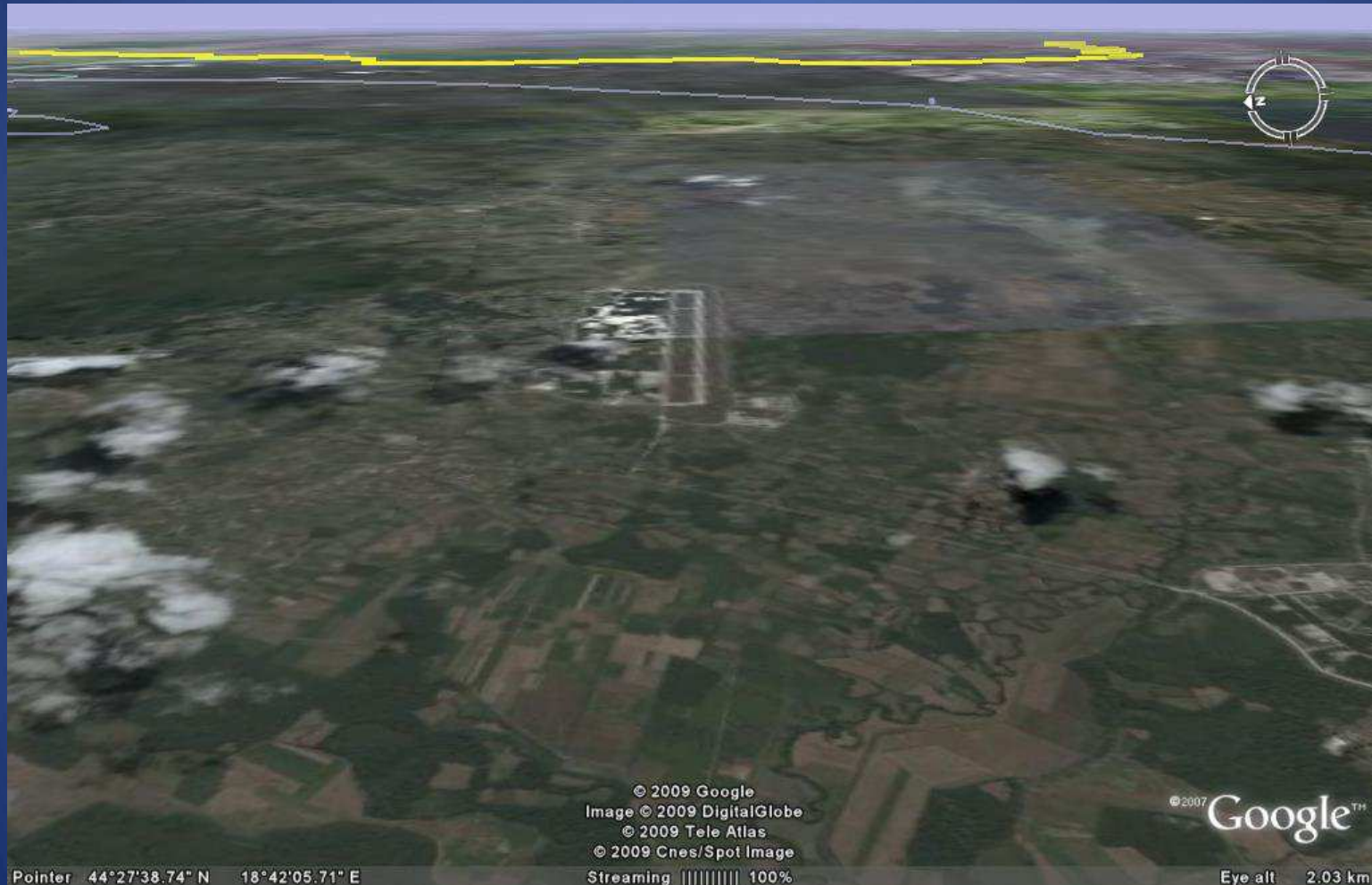


LEGEND:

- NEW POWER SUPPLY CABLE (cca 2.5 km) (THALES REQUEST)
- NEW SIGNAL CABLE 20x2x.0.6 (cca 2.5 km) (THALES REQUEST)

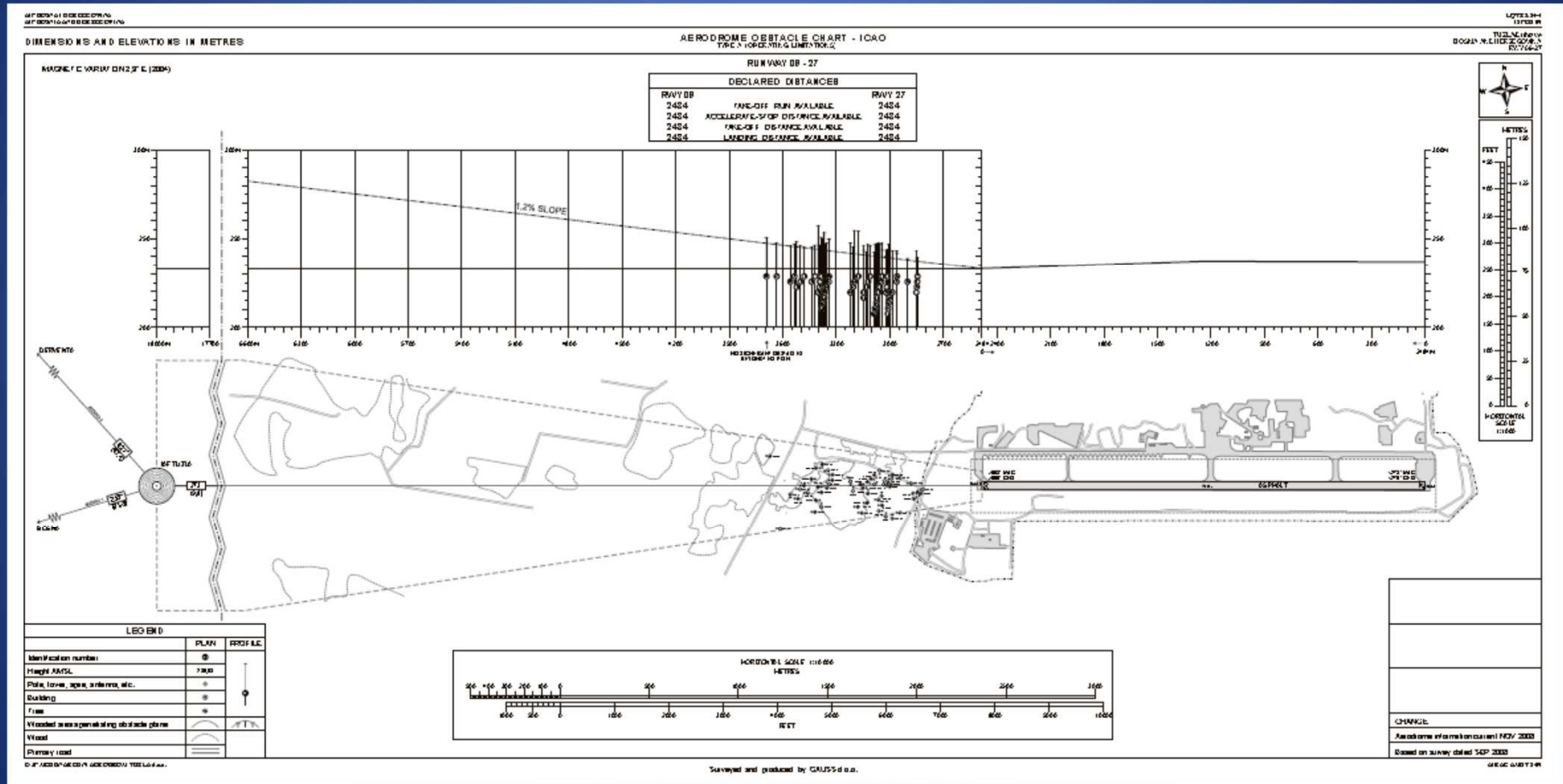
TUZLA AIRPORT

ILS 09 Straight in Approach



TUZLA AIRPORT

ILS 09 Straight in Approach



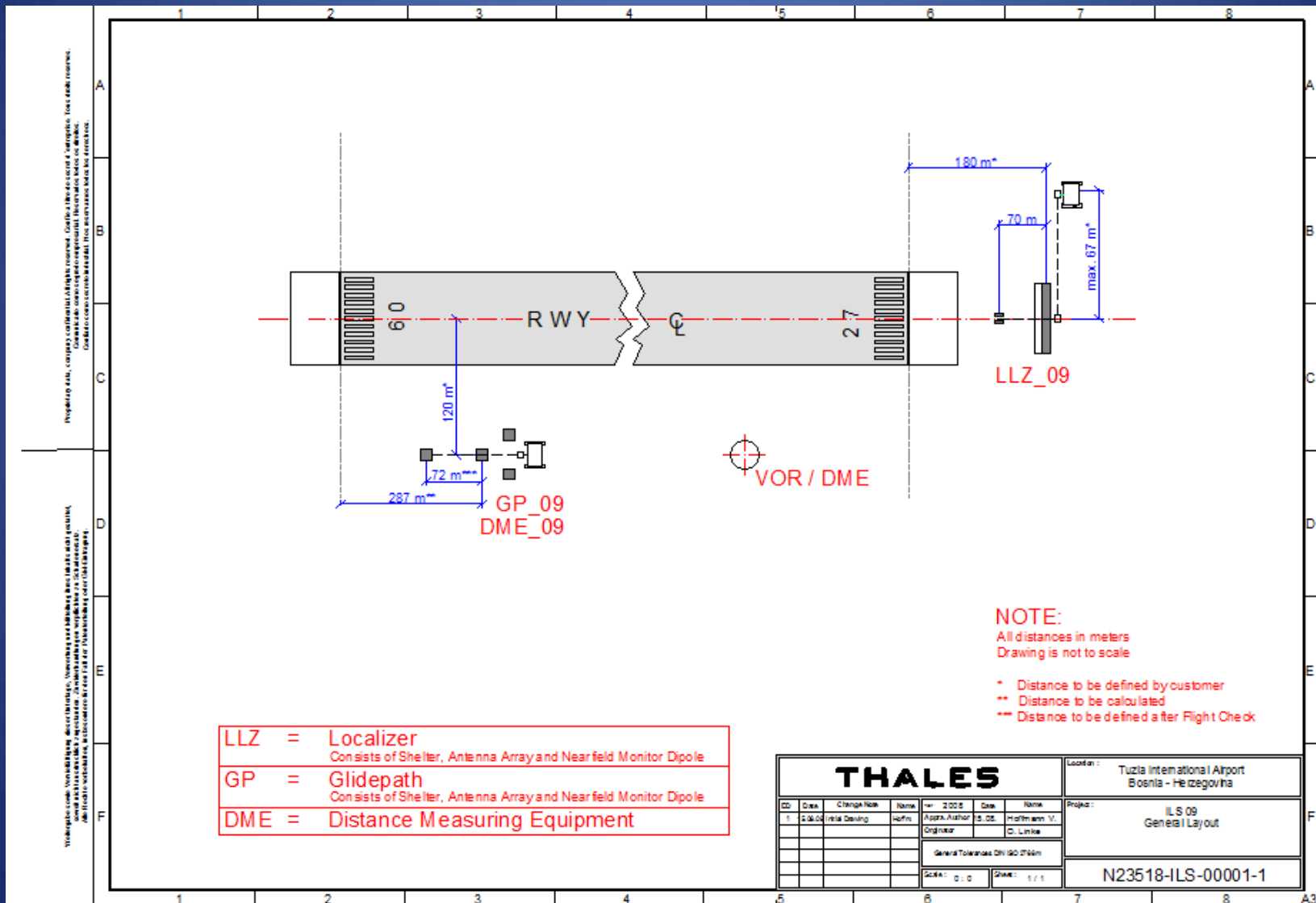
TUZLA AIRPORT

RECOMMENDATION FOR STRAIGHT IN APPROACH USING 3° GLIDE ANGLE

- LLZ Antenna located 180 m from threshold 27
- GP Antenna at the location of 120 m right hand side (in approach direction) from RWY CL and 287 m from threshold 09

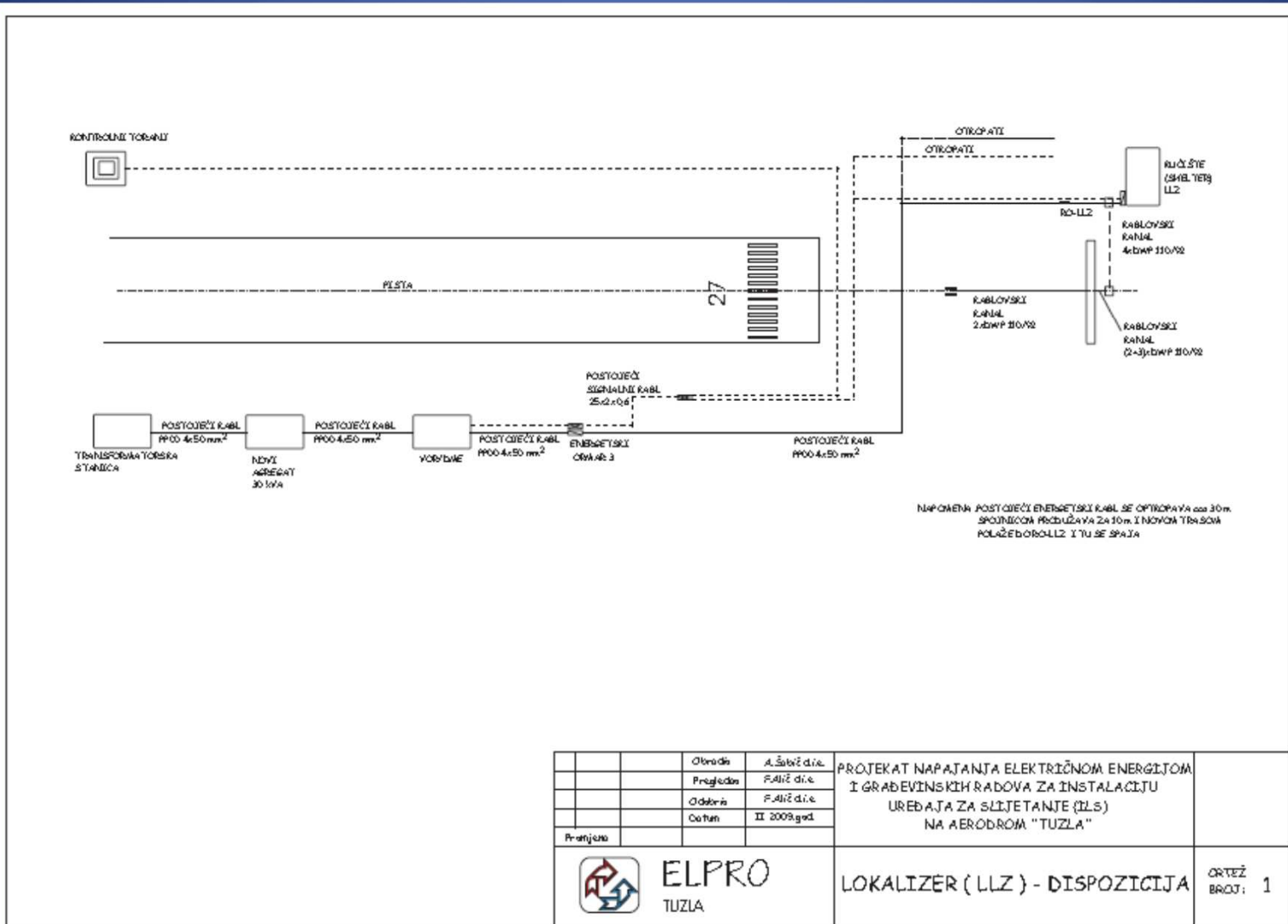
TUZLA AIRPORT

ILS 09 PROPOSED CONFIGURATION



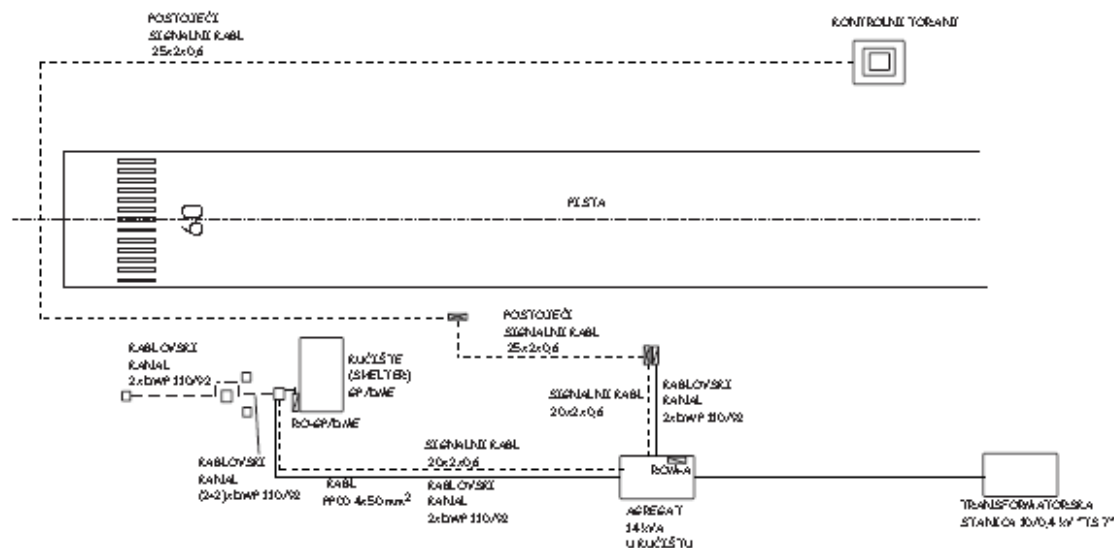
TUZLA AIRPORT


POWER SUPPLY AND SIGNAL CABLING - LLZ



TUZLA AIRPORT

POWER SUPPLY AND SIGNAL CABLING – GP/DME



		Otvorak	A. Štovičić	PROJEKAT NAPAJANJA ELEKTRIČNOM ENERGIJOM I GRAĐEVINSKIH RADOVA ZA INSTALACIJU UREĐAJA ZA SLIJETANJE (ILS) NA AERODROM "TUZLA"	
		Preglednik	F. Aličević		
		Odobrenje	F. Aličević		
		Datum	II 2009.god.		
Pratnja				GLIDE PATH (GP) I DISTANCE MEASURING EQUIPMENT (DME) - GP/DME - DISPOZICIJA	ORTEŽ BROJ: 2
 ELPRO TUZLA					

ILS AT MOSTAR AND TUZLA AIRPORTS

Implementation so far

- Preparation of Technical Specification
- Public Announcement
- Contract award
- Manufacturing of the Equipment
- FAT
- Kick-off meeting on site
- Delivery of specification of CW
- Delivery of user's documentation
- Factory training
- Public Announcement (CW Tuzla)

ILS AT MOSTAR AND TUZLA AIRPORTS

What needs to be done?

- Flight procedures -ILS approach Tuzla and Mostar (BH DCA responsibility)
- CW Tuzla (FED CAD under THALES supervision of Mechanical & Electrical Installation)
- ILS Installation Tuzla (THALES and FED CAD)
- Commissioning and SAT Tuzla (THALES and FED CAD)
- Flight Check Tuzla (FED CAD)
- Public Announcement CW Mostar – FED CAD
- ILS Installation Mostar (THALES and FED CAD)
- CW Mostar (FED CAD under THALES supervision of Mechanical & Electrical Installation)
- Commissioning and SAT Mostar (THALES and FED CAD)
- Flight Check Mostar (FED CAD)

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questions?

Sarajevo, 12 May, 2009.