Flight procedures and noise management

Transparent noise management and community engagement in Ljubljana airport area

City Municipality of Kranj, Slovenia

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Agenda

1. **Legal basis**

-   Aviation Act

-   Certification specifications for the design and implementation of instrument flight procedures and other conditions for the take-off and landing of aircraft

-   Airspace Change Process

2. Balanced Approach to Aircraft Noise Management

-   Regulation (EU) No 598/2014
-   ICAO Doc 9829
-   Ljubljana Airport

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Legal basis

Aviation Act (Official Gazette, Nr. 81/10, 46/16, 47/19)

Article 116, paragraph 2:

„For each aerodrome and airfield, the methods, procedures and other conditions for safe take-offs and landings of aircraft shall be defined. The method and procedures for safe take-offs and landing of aircraft for an aerodrome where air navigation services are organised shall be determined by the provider of those services, and for other aerodromes and airfields, by the aerodrome or airfield operator.“

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2 possible approaches to oversee the Flight procedures:

- approval of each individual procedure

or

- Oversight of established system
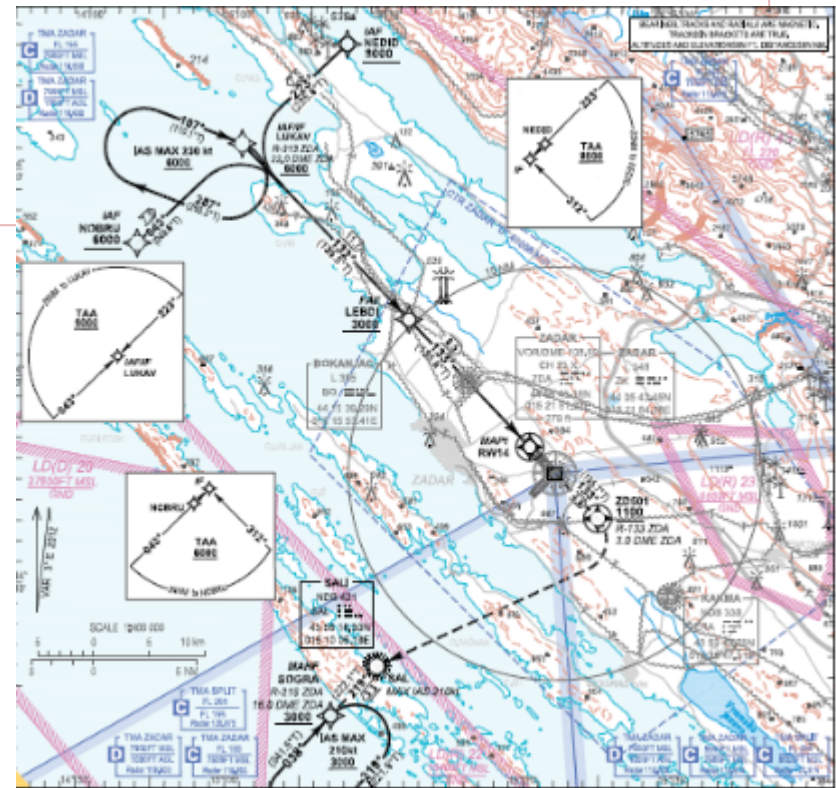
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Certification specifications for the design and implementation of instrument flight procedures and other conditions for the take-off and landing of aircraft (hereafter: CS procedure design)
(Official Gazette, Nr. 41/17)

- Defines the requirements that must be met by the organization:
    i. Management system
    ii. Quality Assurance Manual for Flight Procedure Design
    iii. Resources
    iv. Staff qualification requirements
    v. Record keeping
    vi. Information and data management requirements
    vii. Process design, process maintenance determination, etc..

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Article 5 of CS Procedure design

Reference documents for designing and defining procedures:
- ICAO Doc 8168 (*Procedures for Air Navigation Services – Aircraft Operations – Volume I Flight Procedures and Volume II Construction of Visual and Instrument Flight Procedures*) (v nadaljnjem besedilu: PANS-OPS),
- ICAO Doc 9368 (*Instrument Flight Procedure Construction Manual*),
- ICAO Doc 9371 (*Template Manual for Holding, Reversal and Racetrack Procedures*),
- ICAO Doc 9274 (*Manual on the Use of the Collision Risk Model (CRM) for ILS Operations*),
- ICAO Doc 9365 (*All Weather Operations Manual*),
- ICAO Doc 9613 (*Performance Based Navigation Manual, Volume I Concept and Implementation Guidance, Volume II Implementing RNAV and RNP*),
- ICAO Doc 9881 (*Guidance for Electronic terrain, obstacle and aerodrome mapping information*),
- ICAO Doc 9905 (*Required Navigation Performance Authorization Required (RNP AR) Procedure Design Manual*),
- ICAO Doc 9906 (*Quality Assurance Manual for Flight Procedure Design*) (v nadaljnjem besedilu: Doc 9906),
- ICAO Doc 9573 (*RNAV Operations*),
- ICAO Doc 9674 (*World Geodetic System 1984 (WGS 84) Manual*),
- ICAO Doc 8697 (*Aeronautical Chart Manual*),
- ICAO Annexes (4, 5, 6, 11, 1415)

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- In case of compliance with req. set out in documents referred, no special approval of procedure needed;

- In the event of deviations from the requirements, the organization shall perform an analysis to justify the deviation and obtain the approval of the CAA.

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Requirements for PANS-OPS Inspectors :

- Aviation Act,
- Rules on qualifications of aviations inspectors and inspectors,
- Program of professional training of officials of the Civil Aviation Agency of the Republic of Slovenia,
- Compliance Monitoring and Safety Management System Manual (Chapter: Authorizations)

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Balanced Approach to Aircraft Noise Management

- Regulation (EU) No 598/2014 on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Union airports within a Balanced Approach and repealing Directive 2002/30/EC

"... Resolution A33/7 of the International Civil Aviation Organization (ICAO) introduces the concept of a 'Balanced Approach' to noise management (Balanced Approach) and establishes a coherent method to address aircraft noise. The Balanced Approach should remain the foundation of noise regulation for aviation as a global industry. "

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The Balanced Approach encompasses *four principal elements:*

- **Reduction of noise at source,**

- **Land-use planning and management**,

- **Noise abatement operational procedures and**

- **Operating restrictions on aircraft** (only after consideration of the benefits to be gained from other elements)

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LJLJ AD 2.20 LOCAL AERODROME REGULATIONS

- Departures and landings can be planned between: MON and SUN 05:00 - 22:00 (04:00 - 21:00).

- Exemption for urgent flights.

LJLJ AD 2.21 NOISE ABATEMENT PROCEDURES

1.1 Regulations in force to avoid excessive aircraft noise in the populated areas in the vicinity of AD LJLJ

Aircraft not certificated in accordance with *ICAO Annex 16, Volume I, Chapter 3* are not permitted unless the Civil Aviation Agency of Slovenia grants exemptions in justified cases.

Every operator of aircraft using the airport shall follow aircraft manufacturer's noise abatement recommended procedures and ensure at all times that aircraft is operated in such manner that unnecessary noise disturbances are not caused in areas surrounding the airport. This applies in particular to the times of night flying restrictions.

Compliance with the procedure above shall not be required in adverse weather conditions or for safety reasons.

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LJLJ AD 2.22   FLIGHT PROCEDURES

1 NIGHT FLYING RESTRICTIONS

Between 22:00-06:00 LT flight operations are subject to the following restrictions for noise abatement reasons:

- between 22:00-00:00 LT RWY 30 will not normally be used for departures; pilots shall expect departures on RWY 12

- between 00:00-06:00 LT departures on RWY 30 are not permitted

These restrictions do not apply to departures for safety, meteorological, technical and SAR reasons.

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„The Wright Brothers created the single greatest cultural force since the invention of writing. The airplane became the first World Wide Web, bringing people, languages, ideas, and values together."

Bill Gates, CEO, Microsoft Corporation

Thank you for your attention!