الهيئة العامة للطيران المدني
Civil Aviation Authority
State of Qatar • دولـــة قطـــر

Procedure for Extension of Navaid Certification Validity with focus on ILS CAT III

- Facility performance CAT III Instrument Landing System (ILS),which require the highest levels of integrity, continuity, and availability, the application of this process guarantees that:

- Only systems demonstrating stable and compliant performance trends are considered for extension.
- Any degradation or uncertainty leads either to operational limitations (e.g.) downgrade of category or to system withdrawal from service.
- The extension period is strictly limited (maximum 90 days per approval) with continuous monitoring and reassessment.
- Any decision to extend the validity of an ILS certification is based on a structured technical and operational assessment.
- The extension is considered only in cases where periodic flight inspection cannot be performed within the prescribed timeframe, and this condition is formally notified.
- Safety is preserved through conservative decision-making and, where necessary, the issuance of appropriate NOTAMs.

- **Comprehensive technical evaluation is carried out, including:**
  - Analysis of recent ground-based maintenance and performance data.
  - Review of the latest flight inspection results, with specific focus on the system stability and no adjustment made to the nominal values and monitor alarm limits.
  - Verification of any operational limitations through NOTAMs.
- Where required, a dedicated technical-operational coordination is performed to assess operational impacts and identify mitigating measures.
- The final decision is taken by the Head of CNS Systems Engineering and approval from relevant ANSP authority, ensuring an independent and accountable approval process.

NOTE: The entire assessment and decision-making process is formally recorded through the "Extension Management" Check list ensuring full traceability, transparency, and auditability.

Structured Technical and Operational Assessment - Activities Before Reinstating ILS CAT III

- Comprehensive health check of the equipment (viz: Transmitter , Monitor & Control unit,) including monitor integrity test.
- Verifying Level 4 **Integrity and continuity of service objectives i.e.** MTBO 4000 Hours for Localizer and 2000 hours for Glidepath.
- No major fault (s) affecting the phasing of the RF signals (Course and Clearance signals)
- No significant variation in monitoring parameters (well within tolerance limit).
- Ground field testing of the radiated signal at established ground check points / Sector checks points (course & clearance areas azimuth coverage ±35 degrees)
- Increased frequency of RWY C/L ground Check for Localizer beyond ILS point E.
- No major construction / development in and around the airport impacting on ILS guidance signals in air and flight procedures within DOC.
- Increased frequency interval of ground check and equipment maintenance fortnightly.

Structured Technical and Operational Assessment - Activities Before Reinstating ILA CAT III

- Correlation of the latest flights check data and no any adjustment made (nominal values and monitor alarm limits).
- Correlation between the latest ground test and the data post flight check.
- Monitor shutdown integrity test with CAT III monitor limits.
- PANS-OPS assessment of any change in threshold data resulting from the RWY resurfacing works.
- If possible, debriefing reports from the Pilot to be collected in co-ordination with airlines.
- Regulatory approval for the extension.
- Increased and Progressive ground check regime to continue throughout the extended, with trend recording.

Reference : ICAO Annex 10 Volume I Radio Navigation Aids

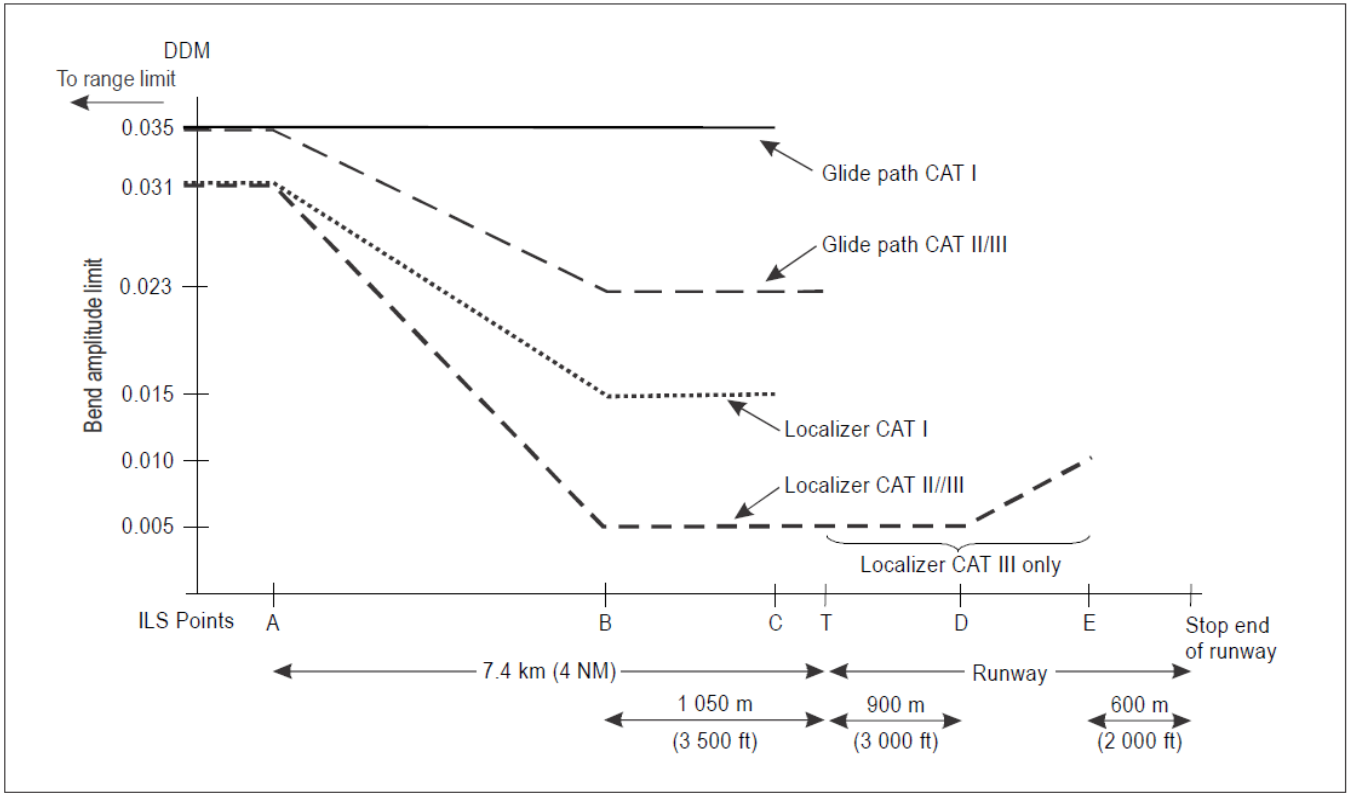
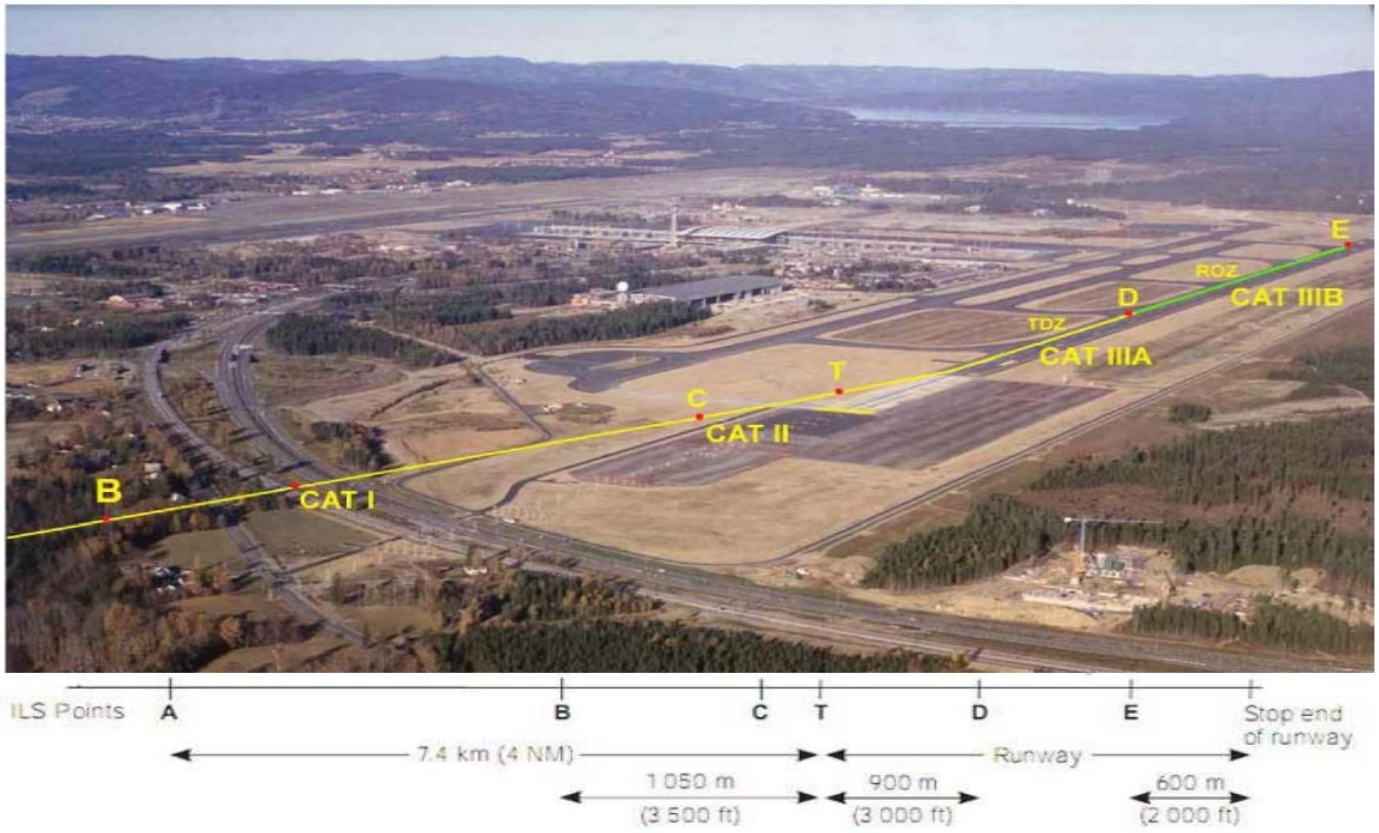
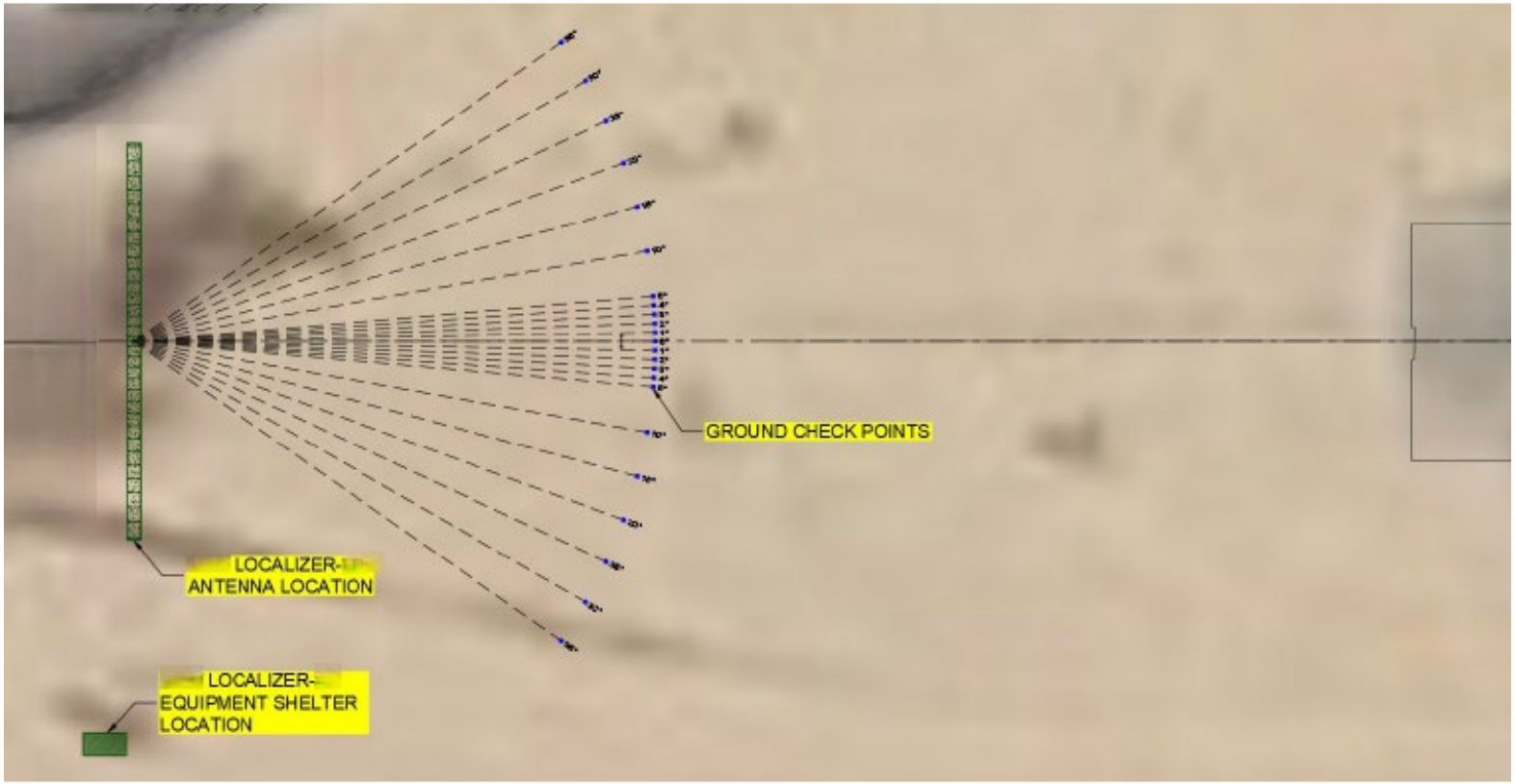


Figure C-1. Localizer course and glide path bend amplitude limits

ILS CAT I / II /III Guidance Signal Requirement



Ground check points ± 35 degrees



Thank You

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