KURDISTAN REGIONAL GOVERNMENT

SULAYMANIYAH INTERNATIONAL AIRPORT

MATS

APPENDIX " M "

PRECISION APPROACH PATH INDICATOR (PAPI)

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PRECISION APPROACH PATH INDICATOR (PAPI)

1. APPLICATION

1.1 A precision approach path indicator (PAPI) system shall be provided to serve the approach to a runway whether or not the runway is served by other visual approach aids or by non - visual aids, where one or more of the following conditions exist:-

a. The runway is used by jet aircraft or other aircraft with similar approach guidance requirements;

b. The pilot of any type of aircraft who may have difficulty in judging the approach due to:-

i. inadequate visual guidance which may be experienced during an approach over water or featureless terrain by day or in the absence of sufficient extraneous lights in the approach area by night, or

ii. misleading information which may be produced by deceptive surrounding terrain or runway slopes.

c. The presence of obstructions in the approach area may involve serious hazard if an aircraft descends below the normal approach path, particularly if there are no non-visual or other visual aids to give warning of such objects;

d. Physical conditions at either end of the runway present a serious hazard in the event of an aircraft under-shooting or overrunning the runway; and

e. Terrain or prevalent meteorological conditions are such that the aircraft may be subjected to unusual turbulence during approach.

2. PROVISION OF PAPI

2.1 PAPI shall be provided when one or more of the conditions specified in 1.1 exist and the runway is used by aircraft engaged in international air services.

3. DESCRIPTION OF PAPI

3.1 The PAPI system shall consist of a wing bar of 4 sharp transition multi - lamp or paired single lamp (APAPI) units equally spaced. The system shall be located on the left side of the runway unless it is physically impracticable to do so.

Note. Where a runway is used by aircraft requiring visual roll guidance which is not provided by other external means, then a second wing bar may be provided on the opposite side of the runway.

3.2 The wing bar of a PAPI shall be constructed and arranged in such a manner that a pilot making an approach will:-

a. when on or close to the approach slope, see the two units nearest the runway as red and the two units farthest from the runway as white or,

b. when above the approach slope, see the one unit nearest the runway as red and the three units farthest from the runway as white; and when further above the approach slope, see all the units as white; and

c. when below the approach slope, see the three units nearest the runway as red and the unit farthest from the runway as white; and when further below the approach slope, see all the units as red.

3.3 The wing bar of an APAPI shall be constructed and arranged in such a manner that a pilot making an approach will :

a. when on or close to the approach slope, see the unit nearer the runway as red and the unit farther from the runway as white;

b. when above the approach slope, see both the units as white; and

c. when below the approach slope, see both the units as red.

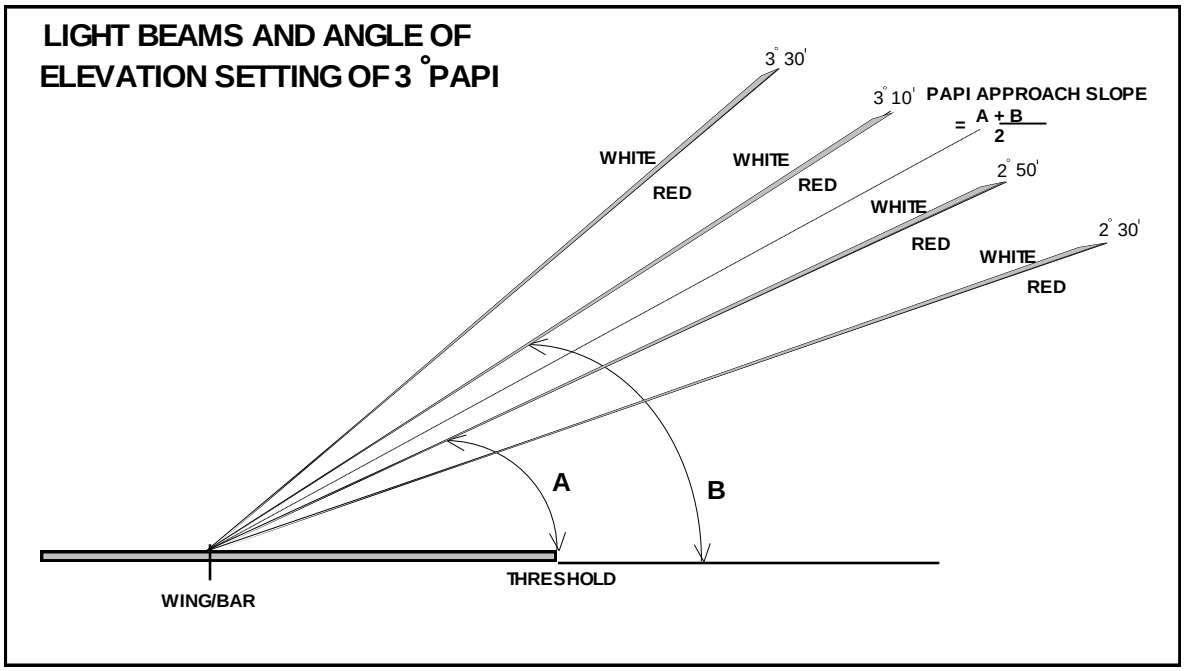

Fig M - 1

3.4 The approach slope as defined in Fig M - 1 shall be appropriate for use by the aircraft using the system.

3.5 When the runway on which a PAPI system is equipped with an ILS and/or MLS , the units shall be positioned such that the visual approach slope conforms as closely as possible with the glide path of the ILS and/or the minimum glide path of the MLS, as appropriate.

3.6 The angle of elevation settings of the light units in a PAPI wing bar shall be such that, during an approach, the pilot of an aircraft observing a signal of one white and three reds will clear all obstructions in the approach area by a safe margin.

3.7 Where PAPI wing bars are installed on each side of the runway to provide roll guidance, corresponding units shall be set at the same angle so that the signal of each wing bar change symmetrically at the same time.

4. REPORTING OF PAPI UNSERVICEABILITY

4.1 PAPI shall be considered unserviceable if one or both of the following occur :

DEGREE OF UNSERVICEABILITY	STATUS
Failure of more than one lamp in each unit	UNIT UNSERVICEABLE
Failure of any one unit	SYSTEM UNSERVICEABLE

4.2 If PAPI is provided on both sides of the runway, failure of a light unit in a symmetrical PAPI system may be tolerated by switching off completely the failed side, leaving PAPI operating only on the serviceable side of the runway.

4.3 Long grass or any obstruction obscuring light units shall be reported and action taken to rectify the problem.

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