

**GOVERNMENT OF INDIA
RAILWAYS
LOK SABHA**

UNSTARRED QUESTION NO:2475
ANSWERED ON:07.08.2003
INSTALLATION OF AUXILIARY WARNING SYSTEM (AWS)
VARKALA RADHAKRISHNAN

Will the Minister of RAILWAYS be pleased to state:

- (a) whether the Justice H.R.Khanna Committee report had recommended for installation of the Auxiliary Warning System (AWS) in the Railways;
- (b) if so, the detailed features of this system;
- (c) whether AWS has been introduced in the Railways;
- (d) if so, the details thereof;
- (e) if not, the reason for the delay in introducing such safety measures; and
- (f) the time by which the said system is likely to be introduced in the Railways?

Answer

MINISTER OF STATE IN THE MINISTRY OF RAILWAYS (SHRI BANDARU DATTATRAYA)

(a) Yes, Sir.

(b) Railway Safety Review Committee (Justice Khanna Committee) vide its recommendations in Pt. I para 6.2 & 6.3 have recommended use of Train Protection and Warning System (TPWS), a variant of auxiliary warning system (AWS) on Indian Railways as per details appended herewith.

(c) Yes, Sir

(d) to (f) AWS is working satisfactorily on Mumbai suburban sections of Central and Western Railways on 538 TKms since 1987-onwards. Further works on about 280 TKms on Southern and Central Railways are in progress. The work of AWS on Central Railway was sanctioned as a pilot project of 'Radio based Automatic Train Control System' similar to European Train Control System. However, due to high cost, the work was not taken in hand. Now AWS based on similar design as existing on Mumbai suburban section and compatible with Euro-balise (Ground Equipment) is being considered for adoption on Indian Railways.

Appendix referred to in reply to part (b) of Unstarred Question No.2475 by Shri Varkala Radhakrishnan to be answered in Lok Sabha on 7.8.2003 regarding Installation of Auxiliary Warning System(AWS)

Extracts of Railway Safety Review Committee (RSRC) Pt.I

Para 6.2 "A suitable train protection and warning system should be adopted with the features mentioned in para 2.12.1"

Para 2.12.1 " Committee recommends adoption of a suitable system, which should have the following features

(a) When the driver crosses a 'caution' or 'yellow' signal he should receive an audio visual warning which he must acknowledge. Failure to acknowledge the warning in specified time will result in automatic application of brakes and stoppage of the train. The system will log every such occurrence.

(b) After the caution signal and on approach to the ' stop' signal, at an intermediate point the speed will be checked. Brakes will apply if the train speed exceeds a specified limit and there is probability of a SPAD occurring at the next 'stop'signal.

(c) Brakes are applied and train comes to a halt if the driver crosses the signal at danger. Para 6.3 Development of Balise-based TPWS having the features as enunciated in para 2.12.1 as above, should be taken up immediately by Indian Railways-para 2.12.4 & Para 2.12.5" Para 2.12.4 "we recommend that development of a Balise-based TPWS having the features as enunciated in para 2.12.1 should be taken up immediately by IR"

Para 2.12.5 " The time-frame recommended by the Committee and the approximate cost for providing the TPWS on the 'C'and 'A'routes of IR are indicated below:-

Route	Approximate cost	Time frame
'C'	Rs.100 crores	2years(Concurrent
'A'	Rs.910 crores	5 years)