

**DEPARTMENT OF TRANSPORTATION****National Highway Traffic Safety Administration****[Docket No. NHTSA-2003-14838]****Federal Motor Vehicle Safety Standards; Occupant Crash Protection; Review: NCAP Test Improvements With Safety Belt Pretensioners and Load Limiters****AGENCY:** National Highway Traffic Safety Administration (NHTSA), Department of Transportation.**ACTION:** Request for comments on technical report and evaluation note.

**SUMMARY:** This notice announces NHTSA's publication of a Technical Report and an Evaluation Note reviewing and evaluating the effectiveness of safety belt pretensioners and load limiters, safety devices that manufacturers can voluntarily install in vehicles. The report's title is NCAP Test Improvements with Pretensioners and Load Limiters.

**DATES:** Comments must be received no later than September 2, 2003.

**ADDRESSES:** *Report:* You may obtain a copy of the report free of charge by sending a self-addressed mailing label to Communications Services (NPO-503), National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, DC 20590. A summary of the report is available on the Internet for viewing online at <http://www.nhtsa.dot.gov/cars/rules/regrev/evaluate/809562.html>. The full report is available on the internet in PDF format at <http://www.nhtsa.dot.gov/cars/rules/regrev/evaluate/pdf/809562.pdf>.

*Comments:* All comments should refer to the Docket number of this notice (NHTSA-2003-14838). You may submit your comments in writing to: U.S. Department of Transportation Docket Management, Room PL-401, 400 Seventh Street, SW., Washington, DC 20590. You may also submit your comments electronically by logging onto the Dockets Management System Web site at <http://dms.dot.gov>. Click on "Help" to obtain instructions for filing the document electronically.

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume

65, Number 70; Pages 19477-78) or you may visit <http://dms.dot.gov>.

You may call Docket Management at 202-366-9324 and visit the Docket from 10 a.m. to 5 p.m., Monday through Friday.

**FOR FURTHER INFORMATION CONTACT:**

Charles J. Kahane, Chief, Evaluation Division, NPO-321, Planning, Evaluation, and Budget, National Highway Traffic Safety Administration, Room 5208, 400 Seventh Street, SW., Washington, DC 20590. Telephone: 202-366-2560. FAX: 202-366-2559. E-mail: [ckahane@nhtsa.dot.gov](mailto:ckahane@nhtsa.dot.gov).

For information about NHTSA's evaluations of the effectiveness of existing regulations and programs: Visit the NHTSA Web site at <http://www.nhtsa.dot.gov> and click "Regulations & Standards" underneath "Vehicle & Equipment Information" on the home page; then click "Regulatory Evaluation" on the "Regulations & Standards" page.

**SUPPLEMENTARY INFORMATION:** Scores on frontal New Car Assessment Program (NCAP) tests were obtained for passenger cars and light trucks which at one time did not have pretensioners and/or load limiters but later included them as standard equipment, in order to determine the effectiveness of these safety devices. The NCAP test is a 35 mph full-frontal crash into a rigid barrier, with 50th percentile male anthropomorphic dummies seated at the driver and right-front passenger positions, protected by the vehicle's safety belts. Seat belt pretensioners retract the seat belt almost instantly in a crash to remove excess slack, which helps to keep the occupant restrained. It also helps to position the occupant back and squarely in the seat, so that the air bag can more effectively deploy. Load limiters and other energy management systems allow seat belts to yield in a crash, preventing the shoulder belt from directing too much energy on the chest of the occupant. Note that load limiters are the primary, but not only, energy management method used in seat belts. Changes in NCAP scores of these vehicles were compared to those of vehicles that did not add either pretensioners or load limiters. The combination of pretensioners and load limiters is estimated to reduce (*i.e.*, improve) Head Injury Criterion (HIC) by 232, chest acceleration by an average of 6.6 g's, and chest deflection by 10.6 mm, for drivers and right front passengers. Each of these reductions is statistically significant. When looked at individually, pretensioners are more effective in reducing HIC scores for drivers and right front passengers, as

well as chest acceleration and chest deflection scores for drivers. Load limiters show greater reductions in chest acceleration and chest deflection scores for right front passengers.

**How Can I Influence NHTSA's Thinking on This Evaluation?**

NHTSA welcomes public review of this preliminary report and invites reviewers to submit comments about the data, the statistical methods used in the analyses, and/or additional information. NHTSA will submit to the Docket a response to the comments and, if appropriate, additional analyses that supplement the report. If the comments warrant a significant revision, then NHTSA will either add an appendix to the report or publish a revised report; otherwise, this preliminary report will serve as the final report.

**How Do I Prepare and Submit Comments?**

Your comments must be written and in English. To ensure that your comments are correctly filed in the Docket, please include the Docket number of this document (NHTSA-2003-14838) in your comments.

Your primary comments must not be more than 15 pages long (49 CFR 553.21). However, you may attach additional documents to your primary comments. There is no limit on the length of the attachments.

Please send two paper copies of your comments to Docket Management or submit them electronically. The mailing address is U.S. Department of Transportation Docket Management, Room PL-401, 400 Seventh Street, SW., Washington, DC 20590. If you submit your comments electronically, log onto the Dockets Management System Web site at <http://dms.dot.gov> and click on "Help" to obtain instructions.

We also request, but do not require you to send a copy to Marie Walz, Evaluation Division, NPO-321, National Highway Traffic Safety Administration, Room 5208, 400 Seventh Street, SW., Washington, DC 20590 (alternatively, FAX to 202-366-2559 or e-mail to [Marie.Walz@nhtsa.dot.gov](mailto:Marie.Walz@nhtsa.dot.gov)). She can check if your comments have been received at the Docket and she can expedite their review by NHTSA.

**How Can I Be Sure That My Comments Were Received?**

If you wish Docket Management to notify you upon its receipt of your comments, enclose a self-addressed, stamped postcard in the envelope containing your comments. Upon receiving your comments, Docket