

SafetyBeltSafe News

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KIM Does It Again!

The July Kidz in Motion (KIM) Conference in Denver included presentations on technical updates, product innovation, and program interventions. Among the child passenger safety (CPS) “Heroes” honored were SBS USA members Tammy Franks, Ruth Harshfield, Kathryn Kruger, and Darren Qunell.

The Opening Plenary by Marilyn Bull, MD, long a leader in CPS, reviewed the importance of both rear-facing travel and of pediatricians reaching parents in advance with important CPS tips. To avoid less-ideal choices after using the infant-only seat, counsel at the 4-6 month visits before parents choose.

Bull reminded attendees that Swedish children ride rear facing in large seats with a support foot to reduce rotation until they are ready for boosters. Describing the American-data-based study, comparing reductions of risk for birth to 11 months and 12-23 months, Bull noted that of the 1840 cases surveyed initially, 21% of the children were *unrestrained*, 8% demonstrated major misuse, and 23% were “unknown restraint usage.” (See *SBS News*, 3/08, pp 2 and 4 for details.)

The LATCH Working Group, 30 manufacturers in all, is researching voluntary standards but found that new equipment must be designed to test some possible scenarios. Given that, the Group announced only intermediate findings.

Although some manufacturers, especially Ford Motor Co., accept parents using the inner bars of outboard LATCH locations, the Group had concerns: 1) overloading if parents decided to hook 2 safety seats to the same bar; 2) lateral instability of rear-facing seats if the space were wider than standard; and 3) anchors being misaligned in some vehicles. According to their analysis, only 13% of such center

locations met their criteria for use.

Deborah Stewart, *Safe Ride News*, presented useful comments on tethers. Considerable slack in lower attachments/safety belts can be mitigated by using the tether. This reduces pressure on lower attachments by 70-80%, implying heavier children might be able to use LATCH. Tests show that 2” of slack can be tolerated well *if* the tether is hooked. A special-needs safety seat, the Roosevelt, by Merritt, has an E-Z Tether which may be attached to the shoulder belt, reducing concerns about weight limits since no separate anchor is used.

Product Shorts: Points from the vehicle manufacturers’ panel included a fervent wish of all concerned that safety seat and vehicle designs would be better harmonized. The issue of headrests arose as these are moved forward to help adults weather crashes better but then interfere with tall safety seats. No one likes to recommend headrest removal, for fear adults will not replace them.

Toyota Tether Program, described in detail in the 1/08 issue, *SBS News*, and at www.carseat.org, has begun receiving requests from families from Alaska to Florida. However, the major stimulus will be CPS Technicians and educators encouraging those with Lexus and Toyota brands, made pre-2001 without tether anchors, to apply to SBS USA for free installation certificates.

American Honda/Acura noted a no-questions-asked safety belt replacement policy for vehicles under 15 years old. Three vehicles (Odyssey, Pilot, and Ridgeline) have 4 or 3 LATCH locations, in excess of the required 2. Center LATCH use is okay if the width equals the standard. (*continued, pg 4*)

CALENDAR

Manufacturers:

Recalls

Funded by CA OTS and CA State Dept of Public Health

SBS USA TECHNICAL TELECONFERENCE

1 CEU for Techs and Instructors
* **9/18/08** 10 am-11:30 am (CA only). For details, e-mail Annette.DiPirro@cdph.ca.gov.

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* **10/6/08** Call SBS USA for details.

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* **9/26/08**, 8:30 am-5 pm, Glendora, CA. To register, call SBS USA. Associated checkup on 10/1.
‡ Sponsored by CA Office of Traffic Safety (OTS) and Glendora PD.

Vicki Moseley of Prague, OK is campaigning for all safety seats to bear a label listing identifying information about the occupant. Her grandchild was transported in a safety seat when a crash, which proved fatal to the driver, occurred.

The child's family members weren't reached for 5 hours, while the seriously injured toddler was flown to a hospital.

Moseley wants no other child to bear the pain of being unidentified in crisis. SBS USA agrees. Some companies have added such labels. Can the industry take this step without regulation? Let us know if your company has such a policy or is interested in pursuing it.

Baby Trend Rigid Latch-Locs, made 5/14/07 to 4/1/08, had a LATCH connector with metal parts that could crack, allowing the base to be released from the anchors in a severe crash.

Call 800/328-7363 for a replacement Flex-Loc Base. Until replaced, use base or seat alone with vehicle belt.

Chicco KeyFit and KeyFit 30 (also part of Cortina Travel System), made 2/26/08 to 3/17/08, may have a base with a defect that prevents tight installation with LATCH. Call 800/807-8817 for new base. Install with vehicle belt until new base is received.

Graco combination seats (**CarGo** and **Treasured, Ultra, and Platinum CarGo**), made 1/9/07 to 3/3/08, had incorrect NHTSA phone number on sticker. Call Graco for correct sticker.

Which Way Should the National Highway Safety Programs Travel?

Chair of the Governors Highway Safety Association **Chris Murphy** of CA testified in July before a Congressional committee, seeking an integrated, unified national plan.

Changes advocated including combining all occupant protection efforts in the same category by joining the primary safety belt law incentive plan with the rest.

Other areas of concern were a focus on speed reduction through incentive grants; maintaining a 10% reduction in funds should states choose to lower the minimum drinking age; eliminating too complex or ineffective measures for reducing impaired driving while emphasizing those that have shown results; and perhaps most provocative, aiming for zero fatalities as the goal around which programs would be judged, a measure Sweden has adopted.

THANK YOU

\$28,500: American Honda Motors: 2008 membership year
\$200: St. Joseph Hospital

Congratulations

National Association of Pediatric Nurse Practitioners, Los Angeles Chapter, presented SBS USA Executive Director Stephanie Tombrello with the "Pal of the Year" award, recognizing those not in that field whose efforts help the NAPNAP community in its aid to children.

Karen Fond, a founder of both organizations, and Karen Proctor, CPNP and President of SBS USA, nominated Tombrello and were on hand to present the much-appreciated award.

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Understanding How Injury Tolerances Were Developed

The KIM conference was fortunate to have Dr. Richard Stalnaker, long involved in CPS research and engineering, to provide background for the regulatory development of FMVSS 213, the basis for safety seat design in the United States.

Tests in 1969-70 showed only the Ford Tot Guard, a large shield seat for 1-to-5 year olds, as surviving a dynamic test. Stalnaker pointed out the complete ignorance of tools to evaluate safety seats that **would** work when the standard originated in 1971, on the heels of tests that showed that most "safety seats" on the market either collapsed or loaded the child with extra forces. The initial static tests (putting a wooden block in the seat and pulling up to 1000 lbs. on an eye hook to the seat) eliminated the original failing seats.

Given the lack of child cadavers on which to research, engineers began setting basic goals. Preventing the child's head from moving over the front seat of the vehicle led to a head excursion standard measured from a point on the vehicle test seat. By developing both a standardized dummy and bench seat with a back that could load the safety seat being tested, a regulatory performance standard was created.

Other measures included chest and head loads; head and knee excursions; and the concept of injury level criteria. Of interest is that knee excursion was added to prevent designs which would allow the dummy to submarine under hip restraints to reduce the head excursion numbers, a trick they had seen used in safety belt standard testing.

Human tests with adults, related to pilot ejection criteria for aircraft, showed the field the effects of sudden stops on both head and chest.

Gradually, a combination of measures of both short and prolonged head strikes was used to categorize head injury criteria. To develop injury measures, the Abbreviated Injury Scale (AIS) was created with 1 as a minor injury in which only .2% might die to AIS 6, which would kill almost 100% of subjects.

The government aims for AIS 3, with a death rate of 1.8%, when evaluating products. Head injury can occur from impacts or from simply whipping around in space; both elements need evaluation. When studying potential for neck injury, one evaluates crash forces producing 4 types of pressures on the neck. A shield on a seat is designed to absorb these forces when a child's head strikes and deforms it.

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KIM (continued from pg 1)

The **Ford** representative, a Technician, receives all Ford 800# calls on CPS. She reported tests at 35 mph of the LATCH bars with a 65-lb dummy in a safety seat, showing the bars would take twice as much force as required but she questioned if LATCH attachments were designed for such punishment. Simultaneous LATCH and belt use is acceptable.

She recommended manufacturers provide standardized information for customers, including how to locate a Technician; reminders of state buckle-up laws; and info on LATCH that describes it as a 3-point system and clearly states allowable forms of use.

VW of America continues the Sit Safe program with CPS Technicians and/or educators at many dealerships.

Chicco will sell their KeyFit only in travel systems, but the KeyFit 30 is sold alone. Both have weight limit labels on the handle. For both, use the lockoff first before deciding to lock the retractor as well.

Britax focused on side impact protection, and mentioned changes, including buckles that now click when each tang is inserted, not just with the 2nd tang. (The initial idea was to ensure that there was no "reward" until the buckle was fully secured.) The new Boulevard will have a harness that gives an audible click when it is tight enough to pass the pinch test. Rear lockoffs are now attached 180 degrees from the original; they may be replaced by Britax on older models. Energy-absorbing tether straps have rip-stitches to indicate loading and improve ride-down.

Definitions of children's sizes have been made more explicit; the EPS foam in the seat pan is now

labeled in 3 languages to prevent its being discarded as packing material!! The audience was delighted the Frontier, a combo seat, is labeled for use from age 2 on, helping parents to choose a rear-facing product for the younger kids. Those without tether access can use the product as a booster after 65 lbs instead of as a combo seat.

Evenflo is adding a belt path on the Embrace 5 shell, allowing use without the base. Names for seats are on the way for their products. More side support is coming to the Big Kid booster; EPS foam, to the Chase and Sightseer. The infinite slide harness of the Triumph Advance has been a major hit.

Graco expiration dates for the Nautilus will vary for the child seat and booster modes: 6 years and 9 years respectively. LATCH, with or without the top tether, is acceptable use in the booster mode.

Dorel, with 50% market share, now labels all products with names and described the brand names/licensee names that may be on their varied product line. In 8/08, Alpha Omega Elite and Alpha Omega may be used to 50 lbs. with the harness system, a change which is NOT retroactive. The latter has 3 separate colors for information about its 3 modes.

Sunshine Kids Monterey booster has EPS foam even on the seat pan, side impact protection at hip level and with its 120-lb. limit and expandable system, it serves larger children.

The **AngelGuard** Angel Ride is now rated to 21 ½ inches but still to 9 lbs. Other changes in labeling are intended to avoid mistaken threading of the harness; attaching the buckle pad to the buckle itself places it correctly always. Overnight delivery from their Web site makes last-minute orders possible.