

Chapter 2

THE “INs” AND “OUTs” OF MOTORSPORTS SAFETY

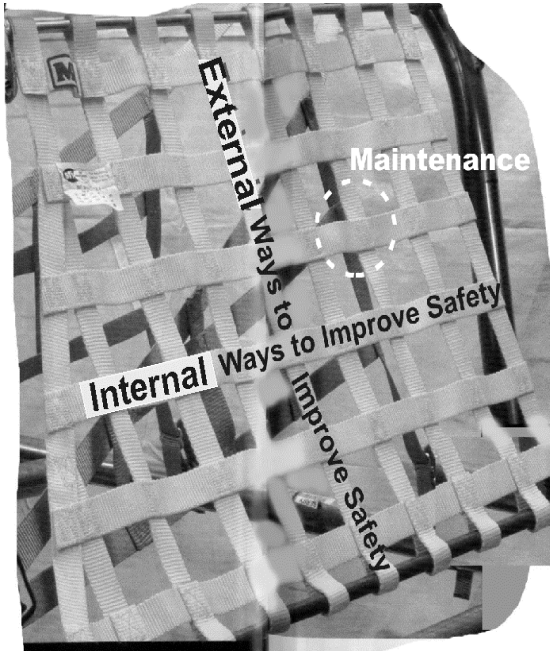


FIG. 2.1 Safety Represented by Horizontal and Vertical Webbing Stitched Together into a Safety Net.

This chapter provides an overview of motorsports safety and introduces the two different ways of improving safety: Internal – the INs, and External – the OUTs. Internal safety refers to those safety aspects that are “built into motorsports and track hardware. External safety involves those safety aspects “outside the hardware” and involves personal abilities, decision-making, and actions of people involved in weekend racing activities. This chapter involves three sections: 1. *Basic Safety*, 2. *Lack Of Certainty*, and lastly 3. *Motorsports Safety Package* Most racers should peruse the first section to understand the concept of Safety. Many other will find the various concepts involving variability in the second section to be useful. All racers should study the last section since it details the complexity of the Motorsports Safety Package.

Section Details

1. Basic Safety:

Perception of Risk, Hazard, Probability of Occurrence, and Risk,

2. Lack Of Certainty.

3. Motorsports Safety Package:

Interwoven Safety Systems, and Arbitrary Short-Term Hazards.

Chapter 3 “THEN” versus “NOW” in MOTORSPORTS SAFETY

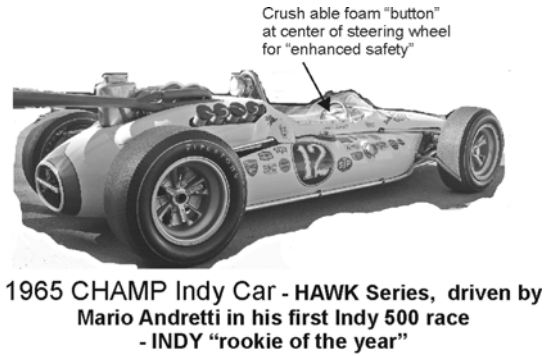


FIG. 3.1 “THEN” and “NOW” of MotorSports Racing Vehicles

The purpose of this chapter is to illustrate the parallels between public-motoring safety and motorsports safety. The chapter also depicts the evolution of safety ideas, concepts and technology from late 1940's till the present time (2007). This chapter briefly highlights some milestones in motorsport safety, and illustrates why the late seventies can be viewed as the demarcation between the old and new – Then versus Now - aspects of both motorsports technology and safety. Two “parade laps” are required: 1. “*Then*” of *Motorsports Safety* and 2. “*Now*” of *Motorsports Safety*. Some racers will find safety insights from the history of safety evolution given in the first “parade lap”. Other racers will find the newest technology involved in safety contained in the second “parade lap” to be enlightening. Some of you are not interested in “how we got here” and how their own accidents contribute to improvements in motorsports safety. These racers can skip to the next chapter.

Chapter Details

1. “Then” of Motorsports Safety:
1937-1942, 1946-1949, 1950-1955, 1956-1959, 1960-1964,
1965-1966, 1967-1968, 1969-1970, 1971-1972, and 1973-1979.
2. “Now” of Motorsports Safety:
General Engineering & Technology, and Recent Safety Advances.

Total number of safety ideas = 5
Total number of safety principles = 28
Total number of illustrations = 34