How the MX Became the Vehicle for
Avco Systems Survival in the 1970s and 80s
By John E Stevens

In the November issue of the TSRA Newsletter John Dyer summarized his remembrances of the happenings leading to Avco’s participation in the MX program. As a key player in this part of Avco Systems' history, I will provide an expanded and different perspective of the events surrounding this pivotal phase of the Division’s history as I remember and lived them.

When Mac Adams took over from Dutch Detra as General Manager of the System Division, it was his plan to attempt to rededicate the division to the reentry vehicle business and place less effort in diversification attempts. To accomplish this, he placed all reentry programs into a new organization called Strategic Systems Management and selected me as VP Strategic Systems to lead the business line. At this time, this organization was responsible for about 80% of the division’s business. Technical support was to be supplied by the Engineering Department. John Mahoney remained VP Engineering. The new organization had responsibility for marketing and business development as well as program management. It controlled the Strategic R&D budget and the IRAD program. It also was responsible for the RV related materials programs at the Avco Specialty Materials Division.

Avco Systems, with support from Specialty Materials, was recognized as a leader in advanced RV technology development and testing. Our customer base was SAMSO ABRES (supported by Aerospace Corporation), AF Materials Lab, DNA and USA Huntsville. These customers offered little opportunity for new business. Unfortunately, the Avco Corporation had lost its capability as an operational RV system supplier after the completion on the Minuteman II Program and with the cancellation of the Mark 17 in 1968. These Avco operational programs were corporate commitments with several divisions involved. Systems’ unique role was in the design, development and test of the RV part of these programs. The SAMSO Missile Development Office was just beginning the advanced development of a new missile designated the MX missile in the early 1970’s. Since the MX missile would need a reentry system, perhaps Systems could get some new business there if we could become a credible competitor again with the help of Avco Corporation.

It was therefore necessary to come up with a strategy to reacquaint SAMSO and their technical advisor group, TRW, with the Avco Corporation and the Systems Division in particular, and then demonstrate to SAMSO that Avco was a technical, competent bidder for the design, development and testing of an operational reentry vehicle system.

Implementing this type of program required an investment that exceeded the resources of Systems and needed the cooperation of other Avco divisions. This required the approval of Corporate Management. By the time the plan was ready for presentation, Mac Adams had been promoted and moved to corporate headquarters and Red Carlson had been appointed General Manager to replace him. It then became the responsibility of Carlson to join Mac Adams when the plan was presented to Jim Kerr and George Hogeman at Corporate Headquarters. Steve Georgiev, a consultant to Adams, also attended the presentation.
The reaction to the presentation was not enthusiastic, but the support was provided. The effort was to be a Corporate effort and was to report to Mac Adams. I was selected to be in charge of the customer development effort and get other Avco divisions involved as needed. (It was generally believed that likelihood of success was low.)

The first task was to convince the SAMSO Missile Development Office and TRW (their advisory group) that Avco Corporation was interested in bidding on the MX reentry system and to reestablish Avco as an operational system contractor. Then we had to convince them that Avco had the technical, management, and configuration management skills to design, develop, deploy and work as a team with other MX subcontractors.

Fortunately there were a number of management personnel and technical staff at Avco who had been active on the Minuteman II program and were available to help in our task. One asset was that our San Bernadino field representative, Ed Stearn, headed the local Air Force Association Chapter and had frequent contacts with USAF SAMSO and therefore knew who made the key decisions. A contact plan was generated to contact each key decision maker in the SAMSO management and technical staff to inform them about Avco’s interest and to provide feedback on what the customer wanted in a Reentry System subcontractor. The plan was monitored by John Gilmore, Fran Shottes, Jack O’Rourke, and Joe Vogl (Lycoming) to ensure that all bases were covered. By the time the RFP was released, the customer knew of Avco’s commitment and believed we were technically credible.

John Mahoney had replaced Red Carlson as GM before the RFP was released. I continued with my responsibility on MX and became the proposal leader. The proposal that was submitted satisfied all customer needs and included significant effort by other Avco divisions. Avco won. At the request of the AF customer, Bob Cooper was appointed to run the program.

Since the MX baseline reentry vehicle for the Reentry System was the GE Mark 12A, the Strategic Systems organization development team now had the task of acquainting SAMSO MX with the potential improvements that were possible if the Mark 12A baseline was replaced with a new RV that took advantage of technology that SAMSO ABRES had demonstrated on the ABRV. (The warhead development community wanted a new warhead to replace the one in the Mark 12A for reliability and safety reasons that would require a new RV of the ABRV type.)

For performance reasons as well as warhead considerations, the USAF decided to replace the Mark 12A baseline on the MX with a new RV that would use ABRES technical advancements. An RFP was released by SAMSO and Avco took the opportunity to bid. By this time John Mahoney had replaced Mac Adams at Corporate and Hank McCard was GM. I was the proposal leader for the new RV. Avco won the competition with an RV that used much of the technology developed by ABRES and demonstrated on the ABRV program.

With these two wins Avco Systems business picture became secure and more resources were available for diversification programs. Some of these diversification efforts are still important to Textron Systems today.