JULY 3, 1986
8605 W. DOUGLAS AVE.
MILWAUKEE, WI. 53225

DEAR ROBERT:

ENCLOSED ARE FIVE WHAT I HAVE LABELED AS "PACKAGES" FOR USE AS YOU DESIRE.

I'VE THOUGHT ABOUT THE POSSIBILITY OF PRODUCTION OR SALES FOR THE PACKAGE 1 UPGRADE. IT WOULD BE GREAT TO PLAY WITH GAMES UTILIZING HIGH RESOLUTION GRAPHICS. HOWEVER, I SEE MANY COMPLICATIONS. I WOULD BE WILLING TO MAKE THE NECESSARY MODIFICATIONS TO ANY MOTHER BOARD AND PERHAPS WIRE THE POWER SUPPLY, BUT I HAVE REALLY LITTLE DESIRE TO WIREWRAP ANYMORE RAM BOARDS OR AUDIO/VIDEO BOARDS. WHO WOULD HAVE THE SKILLS TO LAYOUT AND MANUFACTURE A PC RAM BOARD AND PC AUDIO/VIDEO BOARD? SINCE MUCH OF THE VIDEO RAM AND COMPOSITE VIDEO ELECTRONICS WAS TAKEN FROM THE DATAMAX UV-1R COMPUTER, WOULDN'T PERMISSION BE REQ'D FROM DATAMAX TO MARKET THE RAM BOARD AND AUDIO/VIDEO BOARD? WHAT COMMON MEANS SHOULD BE USED TO PROGRAM THE ASTROCADE IN HIGH RESOLUTION GRAPHICS: ZGRASS AND/OR A MACHINE/ASSEMBLY LANGUAGE MONITOR OR BASIC? I CAN'T SEE HOW I COULD MARKET MY HIGH RES MLM IF IT UTILIZES PORTIONS OF BIT FIDDLER'S MLM, AN ASTROCADE BASIC PC BOARD, ASTROCADE BASIC ROUTINES FOR THE AUDIO INTERFACE ($\geq 8000H$ CONSTRAINT DELETED) AND ROUTINES ALMOST IDENTICAL TO THE ASTROCADE ON-BOARD SUBROUTINES? DATAMAX UTILIZED AT ONE TIME 16K BYTES ROM (INCLUDING ZGRASS) FOR THEIR UV-1 COMPUTER. PERHAPS THIS COULD BE UTILIZED INTO THE UPGRADE. HOWEVER, THE DATAMAX UV-1 COMPUTER REQUIRED THE USE OF A COMPUTER TERMINAL. WHAT COMMON MEANS OF SAVING DATA SHOULD BE USED? WOULD AN EXTERNAL KEYBOARD BE REQUIRED? OBVIOUSLY, TO GET THE MOST OUT OF THE HIGH RESOLUTION GRAPHICS, A COMMON MEANS OF PROGRAMMING IN THAT MODE IS REQUIRED. A GROUP EFFORT IS INDEED REQUIRED TO GET THE JOB DONE AND MAYBE SOME INPUT FROM POTENTIAL USERS. SO TELL ME, IS THEIR A NEXT STEP? I NEED HELP ON THIS ONE. WHO HAS THE DESIRE TO INVEST IN SUCH A PROJECT? WOULD

THERE BE ENOUGH INTEREST TO MAKE THE PROJECT FEASIBLE?

RECENTLY I READ A VIPER SALES BROCHURE CLAIMING THAT THEIR 8K/24K SWITCH ALLOWED ANY CARTRIDGES IN THE CASSETTE SLOT TO BE COPIED OUT TO VIPER RAM. THIS PUZZLED ME. DO YOU HAVE ANY IDEA HOW THIS COPY FEATURE WAS ACCOMPLISHED? I CAN SEE HOW THE Z80 COULD READ DATA FROM A CARTRIDGE AND BY ELECTRONIC TRICKERY THE SAME DATA WOULD BE WRITTEN TO RAM. BUT THIS WOULD REQUIRE THE USER TO UTILIZE EVERY ASPECT OF THE CARTRIDGE, SO EVERY BYTE OF THE CARTRIDGE WOULD BE READ BY THE Z80. THE 8K/24K SWITCH IN PACKAGES 1, 4 AND 5 ONLY ALLOWS THE USER TO DEVELOP SOFTWARE ADDRESSED 2000-3FFFH WITH THE INTENT THAT THE SOFTWARE WOULD EVENTUALLY BE REALIZED IN CARTRIDGE FORM. THAT IS, MACHINE CODE CAN BE ENTERED/LOADED INTO 6000-7FFFH AND THEN SWITCHED TO THE RESPECTIVE LOCATIONS IN 2000-3FFFH.

PLEASE EXPLAIN YOUR REFERENCE TO DICK BELTON, ie, IS HE TROUBLESHOOTING RAM ADD-ONS? WHAT'S HIS ADDRESS?

AS USUAL, PLEASE MAIL THE ENCLOSED POSTCARD, SO I KNOW YOU RECEIVED THE ENCLOSED MATERIAL.

SINCERELY,
Michael C. Matte

P.S. IN CASE YOUR WONDERING, I SPENT MUCH TIME DEVELOPING THE UPGRADE AND HIGH RES MLM FOR MY OWN USE. I ALSO HAD THE HOPE THAT MORE EXPERIENCED PEOPLE MIGHT TAKE THE UPGRADE AND SOME HOW MARKET IT AND THAT I MIGHT ACT AS AN ADVISOR OR MAYBE EVEN A PARTNER.