The following are some internal changes to the version 46 microcode release which you might be interested in:

1) The Misc.Mc file is gone; its contents were absorbed in Disk.Mc, Timer.Mc, and MesaX.Mc; if you made use of the FFaultStack subroutine in Misc.Mc, you will have to define it in your own code somewhere.

2) LoadRAMOccupied.Mc had a bug in it which is fixed--be sure you reassemble this file (which won't happen automatically when you use MicroAll.Cm because it is commented out).

3) The integration procedure is now more complicated; provision has been made to build two different debugging systems for checkout from Midas and a single release system. The debugging systems have no overlays, assemble all code needed for communication with the Midas Kernel, and reserve microstore for the Midas kernel. The release system has two overlays, does not assemble code for communication with Kernel, and does not reserve microstore for Kernel; the resident part of the release system has an LF keyboard/monitor driver (which is the largest configuration); the first overlay is a CSL keyboard driver--this overlay is either loaded or skipped according to what kind of keyboard is present. The second overlay contains code which overwrites both of the initialization pages. See the 2nd page in GlobalDefs.Mc for more elaborate comments. Note that there are now the following command files of interest:

MicroAll.Cm	Assembles everything as before
OverlayAll.Cm	Assembles just the files affected by the three configuration switches in GlobalDefs.Mc
AMesa.Cm	Builds the release system with MicroD
NewAMesa.Cm	Builds the CSL keyboard debugging system
LFAMesa.Cm	Builds the LF keyboard debugging system
Purge.Cm	Cleans out the .DLS, .MB, .REGS, and .CSMAP files
AMesaRelease.Cm	builds the .EB files (YOU WILL HAVE TO MODIFY THIS)
AMesa.Mlf	used by AMesaRelease.Cm

4) Also note that the release system now uses LoadRAMOccupied rather than LoadRAM; please do this in your release systems also so that it will be possible to update LoadRAM by fixing only the version of LoadRAM in Initial. Note: I have a revised LoadRAM which fixes several bugs and is smaller that I hope to release soon as part of Initial; it does not smash xBuf-xBuf3 but does smash yBuf-yBuf1, which are not smashed by the current LoadRAM (There is a comment in Initialize about why smashing xBuf-xBuf3 is not good).

5) The microstore usage conventions are slightly different as follows:
a) DisplayPage should not be used for anything else--any free space on that page is/will be used for the LF keyboard driver, which overflows the page.
b) Page 15 is the "overflow" page, for odds and ends that don't fit elsewhere.
c) The color display driver is on page 15--flush it if you don't want it.
d) MicOverlay.Mb is the final overlay, which overwrites all the initialization on pp 16-17b; you may wish to identify good code units to put in this overlay, replacing the Jasmine scanner and Mesa floating point code which you are unlikely to need.