## CP/M for North Star DD controller running on an Altair 8800

## **Disk Image Files**

CPM 223DQ-48K-SSDD.NSI – Single-sided image of Lifeboat CP/M 2.23DQ with the user area patched for I/O through an Altair 88-2SIO serial port board. IOBYTE is partially supported and allows redirection of the console and the listing device through either port on the 88-2SIO. See the IOBYTE.TXT file on the disk for details.

A customized MOVCPM is included to size CP/M for different amounts of RAM (run MOVCPM followed by SYSGEN). This version of MOVCPM generates an image with the Altair user area for serial I/O already in place so it does not have to be patched separately.

This image also includes the utilities PCGET and PCPUT for loading and saving files between the CP/M system and a PC. A number of other useful programs are present as well.

CPM 223DQ-48K-DSDD.NSI – Double sided version of CPM 223DQ-48K-SSDD.NSI.

## **Source Files**

ALTAIR.ASM – source code for the user area as patched in the CP/M images.

## Single Sided vs Double Sided and Fast vs Slow Seek Rate

This version of CP/M and MOVCPM have been modified to configure all drives as double-sided capable with slow seek rates. This allows any diskette/drive combination to boot and operate properly. Note that single sided *diskettes* can be read and written even though the *drive* is specified to be double-sided capable.

The SETCPM utility on the disk can be used to change the seek rate of the drive to support the fast step rate (3ms) of newer 5.25" drives. Typically, it's best to leave the drive set to be double-sided capable as this works fine for single sided drives and allows a double-sided drive to be swapped in without having to patch CP/M.

Note that a bug in the Lifeboat COPY utility treats any drive with a slow step rate as single sided, even if the drive is set to double sided in SETCPM.